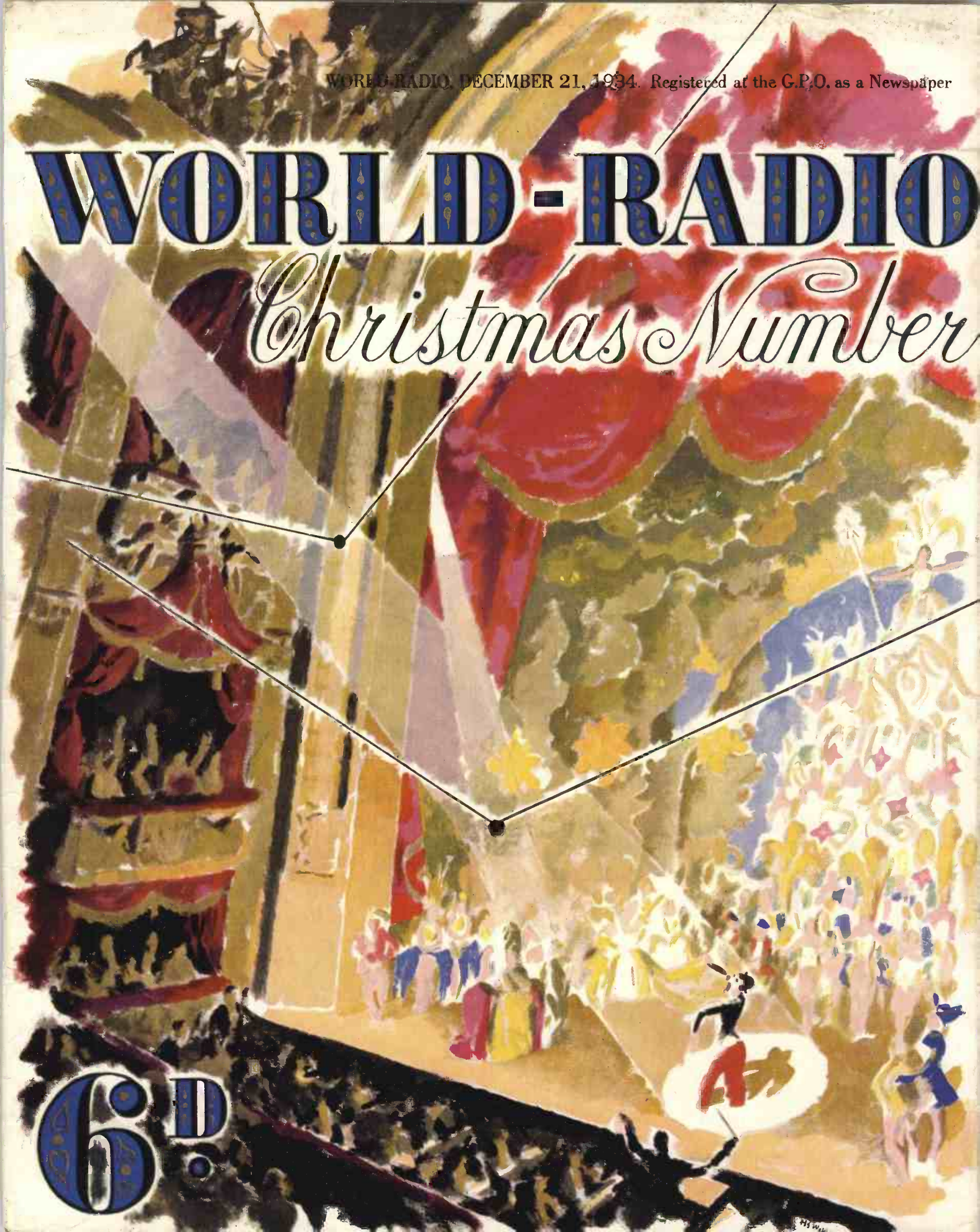


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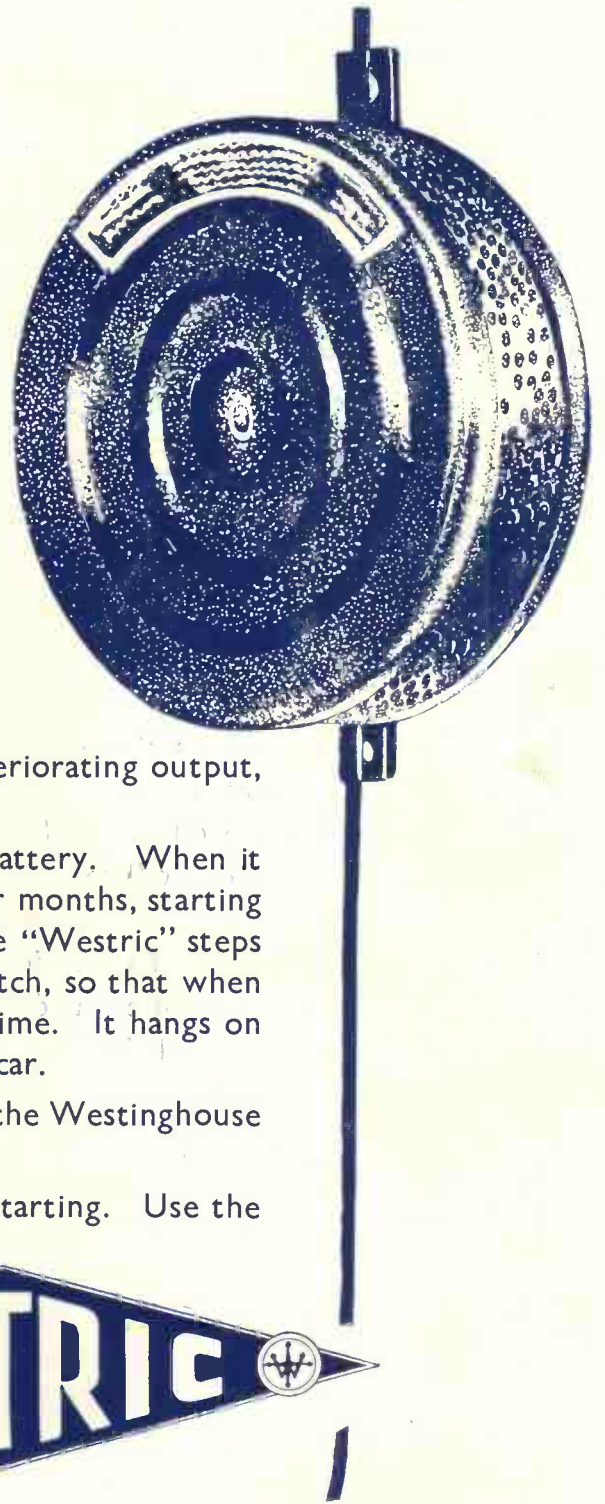
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# WORLD-RADIO

## CHRISTMAS NUMBER

*VOLUME XIX, No. 491, FRIDAY, DECEMBER 21, 1934*



### THE CONTENTS INCLUDE

	PAGE
This Diminishing World	L. I. CRAWFORD 859
Christmas at Nazareth	SIRDAR IKBAL ALI SHAH 860
Broadcasting to Indian Peasants	F. YEATS-BROWN 861
The Riddle of the Stars	CHARLES G. PHILP 862
Leave it to 'Erb	JAY COOTE 864
In the Next Week Programmes	ASHLEY STERNE 865
There is Mistletoe in Japan	A. F. THOMAS 866
Butter, Butter—and Still More Butter	MRS. BELLOC LOWNDES 867
The Family Tradition	J. D. STRANGE 868
Rhythmic Music in the U.S.A.	JACK HYLTON 869
The Strong Comet	RALPH STRANGER 870
"This Christmas Business"	J. C. GRIFFITH-JONES 872
Dancing to Unseen Bands	885
"Empire Exchange"—the Christmas Day Broadcast	886
A Technical Hitch	"DECIBEL" 889
Random Recollections of a B.B.C. Engineer	892
"Hello, Radio-Central!"	897
An Electron Hits Back	898

### THE WORLD'S CHRISTMAS PROGRAMMES LONG, MEDIUM, AND SHORT WAVES

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# This DIMINISHING WORLD

by L. I. CRAWFORD

"I'll put a girdle round about the earth in forty minutes," said Puck; and that was magic in Shakespeare's time. Now our world is laced about in an invisible gossamer of wireless waves which flit with the speed of light, and that is no longer marvellous. That is merely science. We—speaking as humanity—just do it; and such a commonplace have miracles become that we—again speaking as humanity—do not pause to contemplate what they are doing to us. But . . .

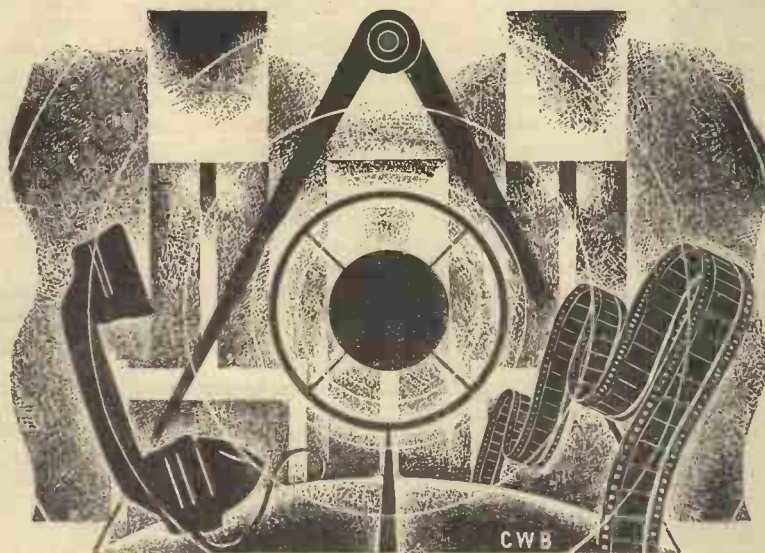
There are still some of us—mostly of the deciduous, old-soldierly crew—who remember what distance was. We walked it—on our flat feet we walked it. I can remember a five-day journey in the Balkans over mountain roads, cut into a wallow by guns and transport of several nations and spattered with snow and sleet, which covered only about thirty-five miles. It is hard to believe that less than a hundred years ago all humanity travelled like that, and that it is quite unlikely that any civilised person will ever travel like that again, barring accidents. Fifteen years ago the fastest going that the average mortal knew was an express train or a motor-car, both limited in range. What would people have said, even then, of a daily air service from Buenos Aires to Santiago—six weeks' journey in 1850—in four hours; of taking a 'bus in San Francisco and getting out of it in New York; of receiving a letter in Valparaiso on Tuesday morning, which was posted in Castle Street, Liverpool, on the preceding Friday evening? That happened to me recently, and I admit that even in this age of everyday wonders it gave me a bit of a shock.

## The Coming of the "Movies"

So much for the science of transport, bringing people into personal or written contact with ever-increasing facility. And as cheaper and quicker travel bursts its way through the hedge of passport restrictions, which is the only contribution Governments seem to care to make to the universal brotherhood of man, transmitted vision jumps ahead of it. For even now, for every man of another nationality on whom you set eyes, you see the photographed ghost of a hundred British and American actors.

I think that the edges of national customs and differences, virtually unchanged for centuries, had begun to blur at the touch of transmitted vision—the moving picture—twenty years ago. It is only when one visits some remote country—Bolivia, for instance—where cinemas are still outside the normal habit of most of the people, that one realises how much the movies are doing in the cause of international uniformity. In Bolivia things are as they were. One still sees crowds of ladies in tall white bowler hats and multi-coloured crinolines, carrying babies in a fold of their capes on their backs. But in another quarter of a century that will be as dead as the dodo. In Chile, for example, where the cinema has become

as common a circumstance as in England, no longer does one see the *manto*, the long, graceful silk wrapper fitting closely about the face and sweeping to the knees, without which no woman, rich or poor, ever went out in the mornings a score of years ago. They know better now. They have seen what Carole



Lombard and Janet Gaynor wear; and the *manto* does not go very well with the plus fours that their fathers and brothers have learned to sport. The lover of the picturesque may deplore this levelling tendency, but, in spite of proverbs, clothes do have a great part in making the gentleman.

But though transmitted vision may breed similarity and fellow-feeling, it does not attack the curse of Babel, that barrier of the spoken word which stops our grasping what the other man is driving at. Transmitted vision is as nothing to transmitted sound—the gramophone, the wireless, and the latter's latest offshoot, the talking picture; for the talkie is the child, not of the camera, but of the loud-speaker. Most of us, and not the oldest of us at that, can remember the beginning of portable sound—those phonographs with wax cylinders which so soon wore out. As a new musical instrument they did not amount to much, for any pianist could transmit music from a written score; but no piano could transport the very voice of Dan Leno to Alaska or South Africa. Two years ago, I remember, I saw a Mapuche Indian, who had just ridden in from his tribal hut in the Araucanian woods, standing outside a pawnshop in *poncho* and bare feet, and listening with a smile of appreciation to "The Frothblower's Anthem." "The more we are together, the merrier we'll be!" warbled the instrument light-heartedly; and I thought then that the Delphic Oracle had never said anything of such prophetic significance.

## A Language Paradox

Already the talkie, scarcely five years old, is having its effect in South America, where I happen to live. I am one of the few, or relatively few, who saw that first gigantic talking success, *The Broadway Melody*, as a silent picture. They cut the sound out of it in Santiago at first,

because they thought, reasonably enough, that as the Chilian public did not speak English it would take little interest in English, or rather American, dialogue. What an error! After a while the Santiago *impresarios* became aware that Buenos Aires, across the continent, was eating, devouring, gorging itself on *The Broadway Melody*—in English. They tried it in Santiago, and people fought to hear Anita Page and Bessie Love as if they had been Bernhardts and Duses.

Even then the cinema people could not quite believe it. For a long time they irritatingly cut out great wads of dialogue and substituted "canned music," under the impression that the Latin populace might grow riotous if called upon to listen to excessive English. They even ventured into Spanish. For a long time I never heard Laurel and Hardy except in Spanish, and they didn't speak Spanish at all badly, either. (I rather suspect that in their obscure pasts they may have been down here with some of the wandering circuses that were all we had in the old days.) Buster Keaton wasn't so good in Spanish . . .

But after a while the cinemas began to find that the Latin public did not insist on Spanish. And last year all Santiago flocked to see *Cavalcade*, and—yes—stood up when "God Save the King" came in at the end. Just a little *savoir faire*, that.

## From Santiago to London

And now the wireless. For a long time the wireless remained, for us, a strictly local affair. You could not get much except the local stations, playing gramophone records. But I realised that we were coming to the end of that phase a couple of years ago, when I first rang up London from my office in Santiago. What an incredible business that call was—by land-line, through a score of amplifiers across the continent, over the River Plate, and up to Rio; thence by wireless telephony to New York, and so through to London, where it was three o'clock of a summer afternoon to my half-past ten on a winter's morning, and to a quite recognisable familiar voice speaking from beside the Thames. It was obvious that, when you could get all that for about six pounds, the possibilities of the air had no limit. And now quite a number of people I know listen in regularly to the news bulletins from Broadcasting House—South America comes just on the fringe of the African wave, I am told—or to the German wireless beams which cater for this part of the world. All this in a South American city to which, only sixty years ago, your most urgent message took two months, and wasn't a sure thing even then.

What intrigues me, I must say, is not so much the entertainment value of all this, though that is considerable, but speculation as to where it all leads. What are human beings going to be like in a hundred years' time, with the age-old barriers of distance and language thrown down? Already children think quite differently from the companions of my childhood. In those days

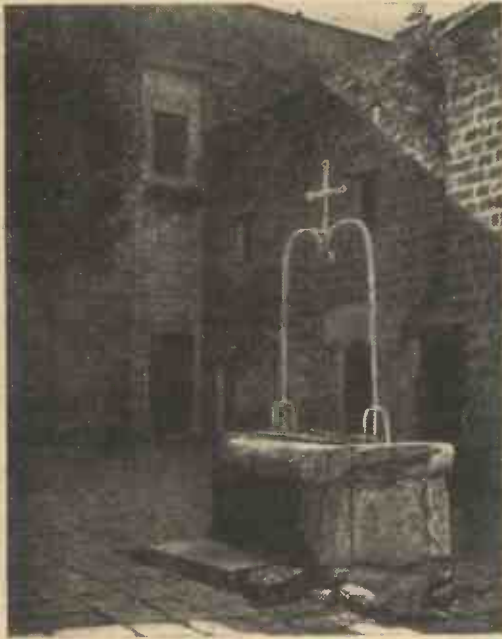
(Continued on page 860)

# Christmas at Nazareth

By Sirdar IKBAL ALI SHAH

To a Moslem the Christmas celebrations at Nazareth cannot fail to prove of the utmost interest. It is well known that all good Moslems deeply venerate the Founder of the Christian faith as one of the great and eternal voices and emanations of Allah, that He is, indeed, revered as a mighty prophet of God among us. Therefore, it was with sympathy and reverence that I witnessed the celebration of His festival at the scene of His birthplace.

Nazareth is probably a larger town than in the time of Christ, and practically all the Christian bodies have missions, churches,



I.E.N.A.

The well in the courtyard of the Church of the Annunciation, Nazareth

and foundations there of one sort or another. There are Roman Catholics, Greeks, Anglicans, and Presbyterians. To these the Arab population is well disposed, the British Churches especially doing much good work among them in the way of bodily healing. Each Church celebrates the Nativity in its own peculiar way, and I found the somewhat spectacular proceedings of the Greek and Roman Churches strangely different from the quieter reverence of the Anglicans and the rather sombre service of the Presbyterians. Indeed, I am not sure in what your several sects actually differ, but from the dissimilarity in ritual and service it seemed to me to be rather profound.

## A Magnificent Celebration

The Greek celebration of Christmas at Nazareth is by far the most magnificent. Their chapel, for the nonce, is transformed into the scene of Christ's birthplace, the traditional stable, with figures of the ox and ass feeding in the stalls and the image of the Redeemer lying in the manger, life-size figures of His parents standing beside it. The chapel is illuminated by hundreds of candles, and the profuse gilding and crystal with which it is ornamented cast gorgeous shadows across the marble floors.

On Christmas Eve a watch-night service is held here, and solemn chants of extraordinary length, but of great beauty and harmony, are sung. At midnight a bell is rung and an ikon bearing Christ's picture is elevated. The crowd fall on their knees, and immediately afterwards troop from the church, headed by the

Archimandrite and clergy, who lead the way to the site believed to be the birthplace of Christ. There a short service takes place, the large candles carried by the hundreds of worshippers lighting up the scene with a soft and very beautiful radiance, which seemed to me like the light of fallen stars.

Next morning a great procession of the Greek congregation parades the streets, carrying ikons, the choirs chanting the somewhat lugubrious, but most tuneful, psalms of the Old Greek Church, many of which, I was told, have been preserved in exactly the same form for centuries. There is a service at the church, and the people then depart to their houses and hold the Christmas festival with solemn feasting and singing.

## Priestly Eloquence

The Roman Catholics are not so numerous as the Greek Christians in Nazareth, but what they lack in numbers they make up in enthusiasm. The fervour of their priests is astonishing, and I felt myself carried away by their eloquence, although I understood only fragments of the Latin, French, and Italian in which their addresses were couched. The difference between them and their Greek brethren seemed to me that betwixt a younger and virile, and a very old faith. If the Greek priests, with their long beards and solemn gestures, give the impression of a long-established faith, the Roman Catholics by their fire and earnestness, made one think of a strong man in middle age.

Their music, too—the glorious organ and the richness of the fine orchestra, which preceded them on the march to the shrine—stirred the blood. Surely here was religion, whatever its tenets, at the height of its spiritual wonder and richness. I was greatly struck by the active mien of the Roman priests, their intelligent demeanour, worldly, yet obviously grave and zealous for their faith.

## The Anglican Service

If the Greek Church symbolises Christianity in its mellowness and the Roman the faith in its heyday, the Protestant congregations seemed to me to signify youth, ebullient and powerful. The Anglican service was simple, yet inspired by all the manly earnestness of the English race. In a manner of speaking it dimly reminded me of the Roman Catholic, yet there was a plainness of method about it which I had not found there, a strange wistfulness, as of men groping toward God, assured, yet more self-conscious. And their hymns! Surely this Church has the most beautiful and heavenly hymns of any religious body. The singing of the small congregation of English people rendered in Nazareth was perhaps less "professional" than that of the Romans, but much more spontaneous. Every man, woman, and child there sang with his or her whole soul.

Of the service, I could naturally understand every word. It was very direct and to the point. Christmas, said the preacher, was a great day of self-examination, not a mere red-letter day on which people should feast and make merry. Jesus had given up His life in order to show men the way to God, and His birthday should be regarded as a day of soul-searching, when personal faults and failings should be reviewed and a new consciousness of spiritual endeavour should be born in a man. This is precisely what we Moslems are exhorted to achieve at Ramadan, and I can honestly say that I profited spiritually from the oration.

But I had to hurry away to the Scots Presbyterian church, where I found a small, but extremely enthusiastic, congregation. If there was not

the same hushed serenity, there was equal fervour. I gather that the Scottish people at home are not so much in the habit of celebrating Christmas as the English are, but the church was beautifully decorated with flowers, and the singing of the Twenty-Fourth Psalm, "Ye gates, lift up your heads," with its accompanying Hallelujahs, was most impressive.

## A Scottish Sermon

The sermon, for which I was in time, was a highly polished deliverance, bristling with literary allusions, and much more philosophical in its manner than that I had heard in the English church, and I remembered that the Scots are the philosophers of Britain, and are prone to impart their thought into their religion and art. It seemed to me, too, that they regarded St. Paul as having set the seal on Christian thought and practice, a view which was novel to me, and a little confusing, though very interesting.

What actual difference, I asked myself, was there between all these sects of the one religion? I am told that they keep sedulously apart from each other. What a pity, I felt, for surely there cannot be any very profound difference.

But on this matter I am not qualified to write and certainly do not want to make any sweeping statement. However, it seems to me that, were they to unite, they might achieve a still greater amount of good on the earth than they are already doing.

## THIS DIMINISHING WORLD

(Continued from page 859)

ships put to sea and were heard of no more until they touched port (if they didn't, like the *Waratah*, they were never heard of again); ninety per cent. of Britons never thought of the telephone in an emergency, and though the telephone existed—they "sent a telegram"; there was only one cinema—a converted music-hall—in Liverpool, thirty years ago; only fools talked about flying, and as for wireless telephony, well . . . Except for occasional foreigners in the street—and that was only because I lived near a great seaport—I never heard anyone speaking a foreign language (barring schoolmasters, of course) until I grew up.

## The New Generation

How different are my own small boys, one generation removed. For them the morning mail plane, three thousand feet above the house, is as normal as the milkman; they see nothing unusual in photographs that move and talk; while as for languages, half-a-dozen gush from the loudspeaker at the turning of a knob. One may not understand them, but one is used to them. In fact, my eldest son, when his small brother appeared and began to babble, wanted to know why we had acquired a German baby. It is perfectly clear that the next generation will differ even more than usual from all those that have gone before. They will not have the same sort of money in their pockets, and still less will they have the same sort of ideas in their heads.

We hear a great deal about the horrors of the next scientific war, but nobody seems to think of the difficulty of declaring war, much less of keeping it going; when television is brought to perfection and everyone is face to face and cannot be bamboozled. It will be a queer thing if, after thousands of years of warrior kings and crusades and holy wars and religious revivals, the universal kingdom of mankind, the empire of the earth, should come about through Hollywood and the B.B.C. and their successors and contemporaries, in the form of universal brotherhood.

But things seem to get curiouser and curiouser, as *Alice in Wonderland* has it; and I shouldn't be surprised.

# BROADCASTING TO INDIAN PEASANTS

## Some After-Dinner Reflections

By F. YEATS-BROWN

MIDNIGHT in Gower Street. My cat drowns at the fireside. There is no sound in this back room but the hypnotic ticking of a clock, casting the spell of Siva on my thoughts.

Siva has many aspects; among others he is lord of the vibration which is life. The gods of the Hindus personify the forces which—under Brahm—He who cannot be discussed—influence us to-day as they did when the Aryans first evolved them. Of their avatars, radio is the latest: its etheric waves are curiously anticipated in Vedic and Vedantic literature.

Sir Monier Monier-Williams wrote of the Hindus that "they were Spinozists two thousand years before Spinoza, and Darwinians many centuries before Darwin, and Evolutionists many centuries before Evolution had been accepted by the scientists of our time." He might have added that they were the first people to formulate a philosophy (a very modern one at that) and that they were the first to write amusing short stories (*Æsop* and *La Fontaine* derive from the *Panchatantra*) and that they invented algebra, astronomical calculation, and indeed the numerical system (including decimals) by which the whole world reckons to-day.

### The Eternal Word

The central tenet of the *Mimamsa* philosophy is that the articulate word is eternal, girdling the earth, and echoing across cosmos. A thousand years ago the poet Kalidasa wrote a play—*The Cloud Messenger*—in which the hero sends aerial messages to his wife. So that, rightly or wrongly, when a radio set is in every Indian village, the Indian villager may accept it as in the natural order of things, calmly, indeed complacently.

If he does so, it will be understandable, considering his traditions. Why should he trouble his head about one miracle more or less? Yet he will be wrong; and it is to be hoped, on the contrary, that the sense of wonder, always

strong in Indians, will rouse in them an appreciation not so much of the benefits of our Government (although we might hope for that as a corollary), as of the possibilities of modern science to conquer not only space, but the hard conditions of the peasant's life.

It is ten years since I left India. We had no broadcasting then. Now there are 100,000 sets in operation; truly a microscopic number for a population of 360,000,000. (We have 6,500,000, Germany 4,470,862, and Australia 376,757 for her 6,500,000 inhabitants). Soon, however, a change will come over the rural scene. Already in Hyderabad—always a progressive State—there is the nucleus of a system which will bring to the remotest peasant news of the outer world; and if the plans which Lt.-Colonel Hardinge has so ably carried out in various districts now mature, as I understand they will, then we shall see the inauguration of village broadcasting in British India and the beginning of the redemption of the countryside.

### A Huge Audience

Here is a potential audience equal to all the present listeners on earth. A sensitive, though very simple, audience. An audience with appetite unvitiated, nourished by the exploits of the heroes of the Hindu epics, as told by wandering minstrels. England's background is industrial, India's agricultural: the cow is to her what coal is to us. In her 600,000 hamlets, in her 200,000 primary schools lives the storied past, linked with the eager present and the future, gravid with possibilities. Already the youth of India is astir. In the older generation men like Raman, Bose, and Tagore are ready to carry forward with us the torch of civilisation. And there are many unknown figures also, great in their own ways and with contributions to make to culture, but unrecognised by the vulgar who seek signs and labels: they are an

unseen yeast leavening the masses. There is marvellous material in India, at both the producing and receiving ends of broadcasting. I do not, personally, imagine that the rural radio will ever become as dull as the Government authorities may try to make it; announcers are likely to have a sense of humour; unexpected things will happen: story-telling in the East is not a lost art as it is with us. But no doubt we shall have to be on our guard against red tape. The peasant wants entertainment like everybody else: he will prefer the song of nautch-girls to the voice of the uplifter.

I have written "he." But it will be "she" who determines the success of village broadcasting. The *Time Spirit* has caught up the women of urban India, and almost swept them off their feet. Now it will be the turn of the countryside. The wife and mother is the pivot on which the life of India turns: if she were to be denied a place in the guest-house, or under the banyan tree, near the loudspeaker, then village broadcasting would fail. But that is unthinkable.

### Financial Questions

Other difficulties and dangers there will be, of course. Finance will not be easy. The Indian Village Welfare Association calculates that a service for 500 villages within a 25-mile radius would cost £33,600 spread over seven years, plus the initial cost of the transmitter, say £2,000. A yearly contribution per village could and would be obtained, provided the matter broadcast was of sufficient local interest, but there is little doubt that Federal or Provincial aid will be required in the initial stages. Then, although village sets would be capable of receiving only approved messages, there will always be the possibility, once the masses are "radio-minded," that agitators may install their own sets.

But the countervailing advantages are so obvious that they hardly require stating. Broadcast education is still in its infancy, but in India as in other countries it will certainly have far-reaching effects. Along with our judicial system there has grown up an enormous class of lawyers and moneylenders. To free the peasant from the grip of these harpies will not be easy. Co-operative societies have done much; radio will do more. Treatment of soils, rotation of crops, infant welfare, sanitation, co-operative banking are subjects which spring to the mind; but naturally such talks should be strictly limited. Music, history, and the drama will be popular, and local news. Sometimes, also, news from afar would be welcomed: for instance, the recent Royal marriage. A marriage is a big event in a village. Every Indian would have been impressed by the service in the Abbey even without understanding it, and would have felt that he was assisting at a great moment in the life of the King's son.

We are on the brink of the biggest thing we have done for India. Whatever reforms are voted, it will be necessary to explain them to the people. The people are illiterate and credulous, but they are not fools. They will listen to wise counsels and we must see to it that such counsels—not necessarily only the official point of view, but that of other sane and moderate men—reach the peasants who are the backbone of the country.



A Hindu family of the Punjab

[E. N. A.]

# The Riddle of the Stars

ONE of the worst gales and thunderstorms ever known on the Cornish coast was at its height, when I arrived, early one Christmas Eve, at Port Wynne, on a visit to my oldest and dearest friend, John Russell.

Russell's residence was situated in a lonely, out-of-the-way spot, some five miles distant from the station. Built on a rocky promontory, it was originally reputed to be haunted, and for that reason he had secured it at a nominal figure. Living here, quite alone, on the simplest fare, and with practically no relations with the outside world, he was naturally regarded by the local people as mad, or in league with the devil. They had yet to learn that the "mad professor," as they named him, would one day be acclaimed as the pioneer of the greatest advance in science ever made by man.

The day before, I had received an urgent request to spend the week-end with him. As his letter also contained a vague hint that I might possibly see and hear something beyond my wildest dreams, I hurried off at once. I knew he was not the man to make any grandiose or premature statements regarding any of his achievements, and it was evident that he had achieved something of the greatest importance in the scientific world, or he would not have sent for me.

I will pass over the details of my arrival and reception at his lonely abode. After a light repast, we adjourned to a small room overlooking the sea. As night fell, the wind slowly abated, and was succeeded by an ominous calm even more fearsome and awe-inspiring than the raging crescendo of the recent tempest.

Seated in armchairs, on either side of a cheery log-fire, we began to chat on scientific subjects in general. I sensed that sooner or later he would unburden himself regarding his own particular work, and I possessed my soul in patience until it should please him to do so.

And then, quite by accident, I introduced the very topic which led up to it, although I was not prepared for the dramatic suddenness with which it came.

"I see in the Press that renewed interest is being taken in Mars," I said, more for want of something better to discuss than for any other reason. "Scientific opinion now inclines to the view—not original, of course—that Mars is really inhabited by a race of beings much higher in the evolutionary scale than we are. For my part, I consider the theory fantastic, and quite incapable of direct proof. What do you think?"

Russell's eyes kindled. "From the information they possess," he said with emphasis, "their theories are probably correct logically, although, of course, purely imaginary. For my part, and from the information I possess, *I am sure of it!*"

I stared at him with such utter amazement that he laughed outright.

"It's all right, my dear Powell," he said, smiling reassuringly, "I am not mad, though a lot of people about here really think I am. But when I tell you that I have, as a matter of fact, within the past twenty-four hours, not only seen the Martians, but also heard them speak, perhaps even you will begin to doubt my sanity."

For a moment I was completely at a loss how to answer. Then, as the obvious solution suggested itself, I recovered sufficiently to answer casually: "Oh! You mean in a dream, or a trance, or something of that nature. I'm afraid that would not be very conclusive to me."

"No. You are quite wrong. I mean my remark to be taken literally. But," he added,

glancing at his wrist-watch, "come upstairs to my lab., and you shall see and judge for yourself."

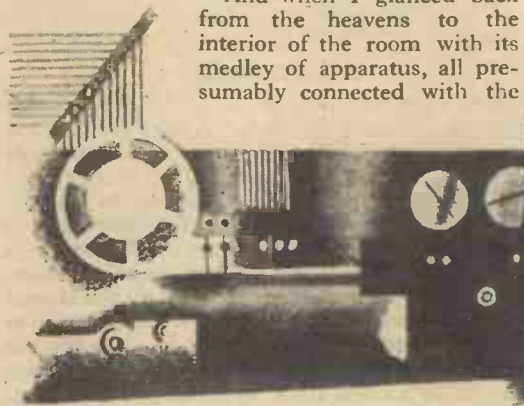
Too astounded for further remark, I at once arose, and together we made our way to the topmost part of a dome-shaped tower at the end of the building.

Here a high narrow door, like a slit in the wall, gave access to a large, lofty chamber. Through an opening in the curved roof a particularly fine telescope, mounted on a stand, pointed towards the heavens. Around the remaining three sides of the room were long benches, littered with a mass of wireless and other scientific apparatus.

Approaching the window, we silently contemplated the magnificent starry vastness of the night.

As we gazed into the infinitude of Space, I mused on the thought that, somewhere before us, among the glitter of star points, lay the ruddy light of the planet Mars—that brilliant and puzzling world, the topic of so many conflicting views and opinions.

And when I glanced back from the heavens to the interior of the room with its medley of apparatus, all presumably connected with the



task my friend had indicated, I could not avoid a feeling of pity at the futility of such a claim.

"Was it possible, was it conceivable," I said to myself, "that the wit of this one mere man could be capable of bridging the distance of well over 55,000,000 odd miles which then separated us from Mars? That in the twinkling of an eye, so to speak, he could conjure up for my edification, across this inconceivable distance, and within a few minutes of their actual occurrence, scenes from the daily life of the Martians as they lived and existed at the moment?" My brain reeled at the thought. It could not possibly be true. He was either mad or mistaken—in all probability the latter.

I was interrupted in my musings by Russell, who, sitting down on a low bench by the window, motioned to me to do likewise.

A few minutes of tense silence followed. Then in a low, thrilling voice, as he pointed to the vast starry expanse, he said:

"How amazingly wonderful is this glory of the heavens, Powell! To know, too, that the sun, upon which we depend for our daily existence, is simply one among a thousand million fixed stars such as we see before us, and is just an ordinary member of the stellar universe. And being an ordinary member, and the Earth being just an ordinary planet of this ordinary star, it surely follows that these myriads of stars likewise possess planets similar to our Earth.

"And if there is a Power working in and on the Universe, capable of producing plants and animals and thinking beings on the Earth, may we not infer that similar processes are at work on planets elsewhere?"

"It is true that, for conditions of life on our planet, certain limitations of temperature, humidity, and chemical compounds are necessary. But who is to say that, elsewhere in stellar space, other limitations may not only be capable of manifesting life and mind, but even more so; or that mankind, far from being the highest beings in the stellar universe, may indeed be the lowest?"

"Imagine, if you can, an infinitude of other worlds, as numberless as the sands on the seashore, and in development extending through the whole gamut of the divine plan of Creation. Worlds rising through all stages of evolution to the incredible heights of the Archangels. Worlds decaying and falling back from primitive man to the worm.

"It was the result of considerations of this kind that drove me to the irresistible conclusion that mankind is not alone in the universe.



That he is by no means the highest being in existence. Henceforth, I resolved to devote all my life to solving this vast and terrible 'riddle of the stars,' and to bring down the solution to solid and incontestable fact. Can you imagine a more amazing and gigantic task? A task which, if only capable of proof, would mark the greatest scientific triumph ever achieved by the human intellect!"

"I can think of no task more fantastically absurd, or impossible of achievement," I retorted peevishly. "It is just a wild flight of the imagination, without one atom of scientific basis behind it."

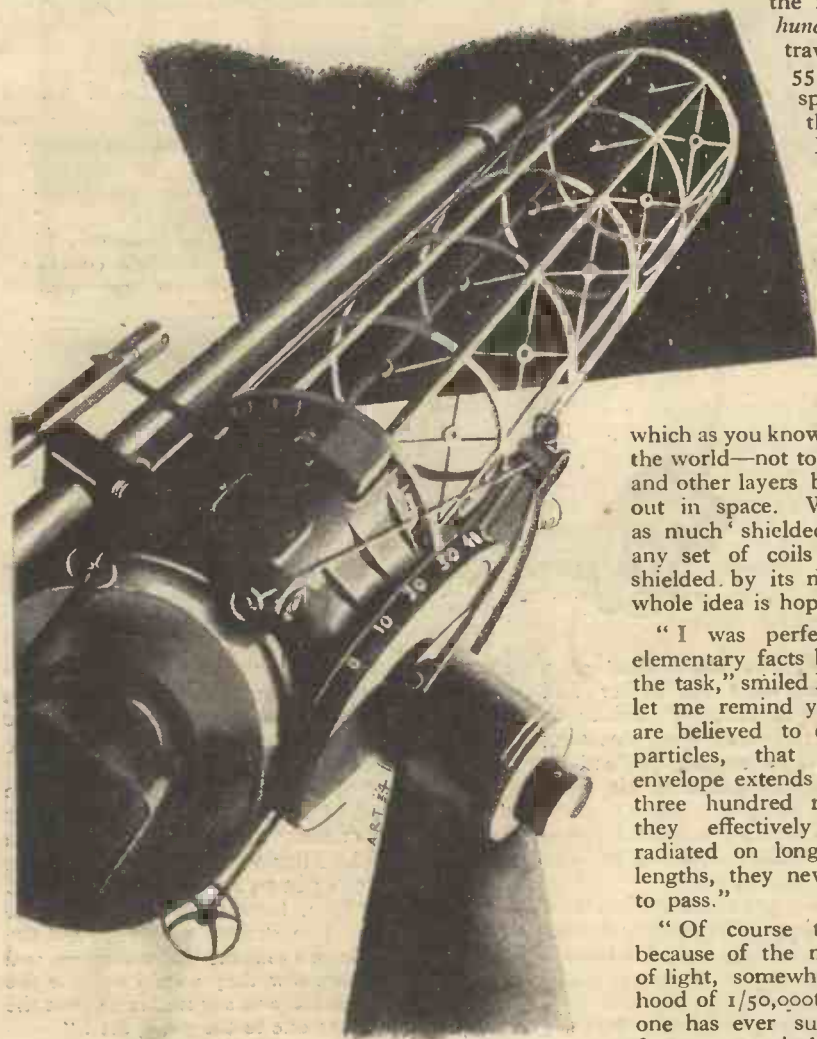
Russell smiled whimsically. "True to type, Powell. I quite expected that reply from you. You are always so very practical, as well becomes the greatest practical wireless expert of to-day. That, indeed, is why I sent for you. If I can



# by Charles G. Philp

demonstrate, scientifically and practically, to your satisfaction, I need not fear the criticism of other experts who are due here early next week."

"My dear Russell," I scoffed, indulgently, "your imagination runs away with you. You do not deserve the rebuff you will certainly get."



By way of answer, Russell rose and proceeded to identify for me a particularly fine star with a reddish tinge.

"That is Mars," he said, "our neighbour in interplanetary space. Although well over 55,000,000 miles away, he is, in a radio sense, quite close, being only a paltry five minutes or so distant, at the speed of light.

"If, as the result of only a few years of hard work, I can bridge the gap to Mars, and open up communication with only one new world, may not future generations, improving on my pioneer effort, bridge the gap of vastly greater distances in inter-stellar space, and so open up communication with hundreds of other new worlds?"

"If you can bridge the gap, but it is a big *if*," I answered harshly. "Look here, Russell! Get this clearly in your mind. The mere demonstration of sound and vision purporting to be from Mars is no proof to me. The scientific objections are so great that it is far more probable that such signals really originate from Honolulu, or Zanzibar, or some other wretched place putting across the ether a Martian play as a stunt!

"Have you ever considered the fact," I added, "that wireless broadcast transmission is the most wasteful distribution of energy that science has yet evolved? Though hundreds of horse-power may be used to transmit from a powerful station, only *billionths* of a horse-

power are picked up by the receiving aerials a few hundred miles away? To traverse the 'paltry' 55,000,000 miles you speak of would require the energy of a thousand Niagaras! Yes, and then some! For no amount of power would ever get the ordinary broadcast transmissions beyond the conducting envelope, or ionised belt, known as the Kennelly-Heaviside layer,

which as you know, completely surrounds the world—not to speak of the Appleton and other layers believed to exist farther out in space. Why, the world is just as much 'shielded' by these layers as any set of coils in a wireless set is shielded by its metal containers. The whole idea is hopelessly absurd."

"I was perfectly aware of these elementary facts before I even undertook the task," smiled Russell, blandly. "But let me remind you that all such layers are believed to consist of ionised gas particles, that the earth's gaseous envelope extends at the most for two or three hundred miles, and that while they effectively stop transmissions radiated on long and medium wavelengths, they nevertheless permit light to pass."

"Of course they do, but that is because of the microscopic wavelength of light, somewhere in the neighbourhood of 1/50,000th of an inch! But no one has ever succeeded in producing, for any practical purpose, wavelengths of this kind."

"You forget, I think," said Russell, "that so long ago as 1927, Professor Majorana, of the Physics Department of the University of Bologna, claimed to have transmitted conversations over a distance of ten miles, using ultra-violet waves. But, tell me, what would happen to a shielded set of coils, to which you refer, if one connected a length of conducting wire from the shield to the coils? Would not this completely neutralise any shielding effect?"

"Obviously, since the shield acting as a 'pick-up,' would pass the received radiations to the coil by way of the conducting wire."

"Well, that is what I have done with the Heaviside and any similar layer of ionised gas that at present act as a shield," came the astounding reply.

"You've what?" I gasped.

"I've utilised any, or all, of these layers of ionised gas as one vast 'pick-up' aerial, and connected them to my receiving set here in this room," answered Russell, imperturbably.

"But let me explain," he continued. "Much has been written and surmised regarding the properties of vibrations outside those in everyday wireless use. Even waves of 20 to 30 metres

were found to possess properties not at first suspected of travelling great distances in broad daylight, where larger waves of *vastly greater* power produced no effect. But little, or nothing, was known of the great gap in the spectrum, of vibrations between 2,000 millions and 12½ millions per second, and I began my investigations at the first named. Using tiny oscillators of a special type, and thermal methods of detection, I worked ever lower and lower down the spectrum, seeking, with the utmost care, to discover what special qualities each wavelength possessed.

"But I will digress for a few moments to refer to certain phenomena which, from the first, intrigued me greatly. I refer to the peculiar wireless 'echo' effects obtained in 1928 by Professor Störmer, of Oslo.

"These echoes, as perhaps you know, were of a type quite different from the normal echoes at intervals of one-seventh of a second, due to waves circumscribing the earth *via* the Heaviside Layer. They were obtained from transmissions sent out by the Dutch station at Eindhoven, and were observed to take place at intervals ranging from 3 to 40 seconds, corresponding to distances ranging from 279,000 to 7,440,000 miles. But even these vast echo effects were eclipsed the following year, when Jørgen Hals—the original discoverer of these echoes—heard similar echoes at an interval of 4 minutes 20 seconds. This meant that the waves had travelled the stupendous distance of 48,360,000 miles!

"With definite recorded facts of this kind, Powell, you will surely agree that no one can categorically set any limitation to the possibilities of wireless communication, and that even inter-planetary communication is not so greatly impossible as you think?"

"Oh, I don't agree," I said obstinately. "I remember the scientific interest aroused by these echoes, but it was all explained by the fact that the Heaviside Layer caused the waves to go round and round the Earth, until finally, by some 'freak' of focusing, they were brought back to Earth again."

"It is hardly scientific to explain phenomena by 'freak' effects, Powell," answered Russell gravely. "As a matter of fact, actual measurement of the attenuation of these signals proved conclusively that they did *not* spend their time within the Heaviside, or any other, layer, as you suggest, but that they really did penetrate them and pass far out into space."

"Then what brought them back?"

"I cannot say. Probably by reflection from electrified particles shot off by the sun and drawn into belt formation by the magnetic field of the Earth. Anyhow, they *did* come back from their 50,000,000-mile journey, and it did *not* require Niagaras of power, since they resulted from *ordinary* transmissions.

"But to get back to my story. After thousands of all kinds of experiments, I found that waves of the order of one metre in length could be radiated with appreciable power, and *never* return. From a transmission point of view, therefore, I had succeeded in identifying a suitable wave for *sending* messages to Mars.

"But, try as I would, I could never succeed in obtaining even the faintest sign of incoming signals. All my efforts resulted merely in torrents of atmospherics, but never a signal.

"Nevertheless, I persisted undismayed, although it became increasingly difficult to produce such ultra-short wavelengths. Finally, in the neighbourhood of 10 centimetres, I found I had reached my limit, and I was on the point of giving up, when I made a discovery, the vast importance of which did not occur to me at the time."

(To be continued)

# Leave it to 'Erb

By JAY COOTE

'Erb was a good boy, and full of ideas, an invaluable member of the wireless trade. This, at least, was the view of his father, Mr. Henry Goodger, the eminent wireless dealer. But there were times when even 'Erb failed to achieve his objects, as this story shows.

"THIS wireless business," said Mr. Goodger thoughtfully, "ain't wot it used to be." Then, as an afterthought—

"It never was."

It was seldom that I called at his shop; in fact, I did so only when prevented through lack of time, bad weather, or some other kindred reason, from walking as far as the main road. Notwithstanding the more or less picturesque radio posters or smaller illustrations cut from price lists pasted on the shop front, there was nothing displayed in the window which could have tempted any passer-by to cross the threshold, however keenly interested he might be in radio. As an exhibition it recalled *la Morgue*, or, as a neighbour of mine had more poetically described it, "a cemetery of blasted hopes."

Originally, Mr. Henry Goodger (portable expert, "all kinds of wireless repares") had been a plumber; one gathered as much from the terms he used when, later, he dealt in wireless sets; he still referred to joints, elbows, and units used in sanitary installations which have not yet been incorporated in a radio receiver.

The shop was a mass of litter at which even the local dustman would have turned up his nose. The few receivers that Mr. Goodger wheedled out of passing customers for repair or possible—no, impossible!—alterations were always to be seen in a state of evisceration. If there was anything in which Mr. Goodger revelled, it was the disembowelling of a portable receiver. At this, I concede, he *was* an expert.

On the counter which also served as a work bench, were spread out, at all times, the intimate "innards" of several wireless sets, but whether he ever effected repairs I had not been able to ascertain during my visits to the shop, as at no time had I ever seen a finished job. He was a great collector of obsolete and unwanted gadgets, disused oddments—such as burnt-out valves, transformers, and faulty condensers—which would appear to have been left over from the reconstructed instruments. Nothing was ever discarded, but sometimes—although rarely—it was possible to find in these dust-covered heaps just the one component needed in a hurry.

It was for this sole reason that now and again I had entered the shop. Mr. Goodger slammed down the lid of the portable set regardless of any resulting damage to such things as valves, and stressed his observation:

"Things," he added, "are worse than they ever was. Nothing seems to go right; you can't please nobody nohow."

This observation called for some sympathetic noise, which I promptly supplied. On previous occasions Mr. Goodger's related experiences had proved interesting, and, as on this occasion I was at a loose end, I volunteered a remark expressing some concern in his troubles.

"Nobody wants 'ome-made sets nowadays; it's this 'ere 'ire system that's killed all the Trade. I don't get 'alf the repairs I useter," he went on, "now these big firms do all their own service."

"And what of those?" I observed, pointing to the mangled objects which littered the work bench.

"Don't amount to anything," replied Mr.

Goodger with emphasis. "A condenser dial loose, a dud valve, or a grub screw that won't grip in a knob. P'raps sometimes a frame aerial wots been eaten up by a spilt accumulator."

He sucked at his pipe pensively. "Things is downright bad, and on top of 'em all my boy 'Erbert has lost a good job."

Here I could scent a story coming. The rain was pouring down on the muddy streets outside; the road was empty except for a few passers-by hanging on to their umbrellas in the high wind, intent only on reaching shelter quickly. There was little risk of interruption.

Herbert, I may add, was the eldest of a family of six. From what his father had told me, he possessed mechanical abilities to an uncanny degree; there was nothing "Erb couldn't do if 'e turned 'is 'and to it," and from what I had gathered his honesty was not above suspicion. This quality, or lack thereof, in his father's opinion, ranked as business acumen—a fact of which the old man was inordinately proud.

"That boy's got brains," Goodger had told me at every opportunity. "E taught himself all about wireless and 'e'll go far; 'e can do anything, and if I get stuck with one of these 'ere jobs, I leave it to 'Erb."

Herbert, during the day, had been spending most of his time collecting and delivering accumulators in the district, as this doubtless was the most remunerative side of the business. He had been in several situations, but had never kept them long. It was not due, I understood, to any lack of ability, but simply because his genius had not been recognised or his sterling qualities appreciated. When I commented on the fact that 'Erb was back again, I received the explanation:

"'E's a good boy, is 'Erbert, and full of ideas, but although I sez it as shouldn't, the bit of advice I gave 'im wasn't so useful after all. You see, this is 'ow it wos. The firm 'Erb was with 'ad been landed with a tidy stock of crystal sets left over from better times. It was dud stock right enough, and the Boss gave a shudder every time 'e looked at it. Well, 'Erb told me about this lot, and said that if they couldn't get rid of these sets by Christmas time, when everybody was wanting one no matter what it looked like, they might just as well burn 'em. See what I mean?"

I nodded.

"I've always 'ad to think out things for myself ever since I was a nipper, but this time I fancy I went one better, so we talked the matter over. 'Erb thought 'e saw 'is chance this time to



show what 'e was worth, and got the Boss to agree that if 'e sold the lot 'e'd give 'im a rise and a bit of commission over into the bargain; 'e wasn't due for a rise until January."

"Did the Boss agree?" I asked.

"Did he? Jumped at it. 'Erb took the matter in 'and at once and made up as many parcels as 'e could, each one with thirteen crystal sets. And this was the clever bit about it—in each one 'e put an invoice for twelve sets. That was my idea, because I know what the Trade is like. The dealers who received the parcels would think a mistake 'ad been made, and as the prices were low they would pay for the twelve sets in the bill and say nothing about the error. They were one to the good, see?"

I saw.

"And so 'Erbert—I mean Herbert—managed the deal?"

"No such luck." Mr. Goodger sighed heavily; he may have termed himself a "Portable Expert," but he turned the scale at fifteen stones if an ounce. "There's no honesty in this trade; t'aint like plumbing. You wouldn't 'ardly credit it, Mister, but as sure as I'm standing in this 'ere spot every blessed one of those customers of theirs sent back a parcel with twelve sets with a note that they 'adn't ordered any. Dirty, I call it."

I am proud to say that I succeeded in stifling a laugh. "And did Herbert get his rise?" I enquired.

"No, Mister, 'e didn't; 'e got the push and is 'elping me out over Christmas."

I tendered the sixpence for the small hank of wire I had found and which Mr. Goodger had wrapped up for me whilst he was talking, and made for the door. "Hard lines," I muttered.

"Yes, 'ard lines," agreed Mr. Goodger, "but it might 'ave come off," then brightening up and tapping his forehead with the stem of his pipe he added: "Any'ow, 'e's got it there, Mister. You leave it to 'Erb."

# IN THE NEXT WEEK PROGRAMMES

Chosen by ASHLEY STERNE

## MONDAY

### A Rossini-Verdi Composite Opera

All Night. SWISS COTTAGE, relayed by Appleby and Shooter's Hill. "William O'Tello," conducted by Frank Can't-tell.

### Unrecorded Records

7.0 p.m. RADIO-LUCKYBAG. Gramophone Recital by Christopher Stein. Jack Petersen singing "The Last Round Up;" Henry J. Ford singing "Ole Man Flivver;" Lady Astor singing "O, Play to me, Topsy;" Hitler singing "I'm Danzig with Tears in my Eyes;" Sam Small singing "Holloway, Awake, Beloved;" and Victoria Grasshopper singing "Little Gnat, You've Had a Buzzy Day."

### Newly Discovered Work by Chopin

8.15 p.m. WARSAW, relayed by Seesaw. "Nocturne in the Old Kent Road." Played by Rashmanenough.

### Chamber Music

9.0 p.m. MARYLEBONE, relayed by Baker Street. Horrorwitz on the organ at Madame Tussaud's.

## TUESDAY

### A Cannibal Banquet

Opening Time till Closing Time. CHRISTMAS ISLAND, relayed by the Club-Sandwich Islands. Running Commentary by Big Chief Rubbatummi. Preceded by a Tomtom Recital by Uncle Bones (of Margate), and followed by a cowrie-shell collection on behalf of the Widows of Shipwrecked Mariners.

### Shykovski's "Nut-Cracker" Suite

6.30 p.m. BARCELONA, relayed by Brazil. Conducted by Munkinutz.

### Carol Concert

8.0 p.m. BUCHAREST, relayed by Buckhurst Hill. Arranged by Carroll Gibbons and Billy Caryll. The Worcester Philharmonic Club singing "Good King Worcestersauce;" the Oswaldtwistle Choral Society singing "The Twistletoe Bough;" followed by solos from Arnold Sebastian Bach's "Isthmus Oratorio" sung by Ina Souez.

### Beetrooten's Chloral Symphony

10.0 p.m. MEDICINE HAT, relayed by all chemists and druggists. Conducted by Annie Sthetik.

## WEDNESDAY

### Coronation of the Sulphate and Sulphuret of Magnesia

All Day. GLAUBERSALZBURG, relayed by Mudbaden. Running Commentaries by Herr Hauard, the Lord Marshall, and by their Excellencies the Manganese Ambassador and the Swedenborgian Minister.

### Rollicking Russian Comedy by Tchoko-off

1.0 p.m.—11 p.m. TOBOLSK, relayed by Kamschatka, Nijni-Novgorod, and Earlswood. "Three Sister-Seagulls in a Cherry Orchard." Dmitri Skratchanitch as Nokisblokoff, Olga Samova as Skarlatina.

### An Act from the Kaffir Circus

8.30 p.m. *ad nauseum*. JERUSALEM, relayed from Hampstead. A hand-to-hand Talk on the Mining Market between Izzie Apfelbaum and Rube Schweinfleisch.

### Verdigris's Opera "False-Stuff"

9.0 p.m. PADDINGTON. Teddie Brown as False-Stuff; Padrick Waddington as Slender.

## THURSDAY

### Song-Cycle (with Bawl-Bearings)

7 p.m. TEHERAN, relayed by Al Moran. Squeezeza Lemon's "In a Purley Garden." The words adapted from "The Ruby 'At" of Michael Arlen.

### Fun on a Lightship

8 p.m. HELSINKI. A wooden sea-shanty, performed by an Elder Brother of Trinity House and his Buoy.

### Item from an Antarctic Concert

10 p.m. ALL ANTARCTIC STATIONS, THIRD-CLASS WAITING-ROOMS, AND CHILE. Organised by Eddie Pola and Pola Negri. Relayed from Elephant Island. Purcell's "Trumpet Voluntary," conducted by Tuskanini.

### Unheard Work by Schubert

10.15 p.m. WIEN, relayed by Weib and Gesang. The "Unbegun" Symphony.

Incompleted and unorchestrated by Paul Cleanoffsky, and non-conducted by Sir Henry Wood and his Insulators, including Dorothy Silk and Billy Cotton.

## FRIDAY

### A Chinese Playlet

All Day and All Night. HONG-KONG, relayed by King Kong. "Bung-Ho," a tragedy by Hi-tid-li-hi-ti. Wun Yung Kow as Too Long Tung.

### New Work by One-Egger

7.0 p.m. ZERMATT, relayed by Dohrmatt and Bathmatt. Variations for Alphorn and Shoehorn on an old Swiss folk-song, "Oh, dear, what can the Matterhorn."

### A Never-Too-Oftenbach Opera

8.0 p.m. ALL STATIONS ON THE UNDERGROUND. "Tails of Hoffmann," produced by Sydney Kyte and conducted by John Barcarolli.

### Surprise Item

10 p.m. MADRID, relayed by Yarmouth and Finnish Common Wave. Cast-a-net Recital and Herring Fishing Bulletin.

## SATURDAY

### All in the Day's Shirk

6.30 p.m. NAPLES, relayed by Saffron Hill and Soho. Signor Occhi-Pocchi describes a day in the life of a Macaroni Calibrator.

### A Newly Discovered Opera by Smetana

8.0 p.m. PRAGUE, relayed by Blague. "The Buttered Bread, or, Half a Wife is Better than no Bride." By arrangement with the Hohlmiei Broadcasting Corporation. Well-known Bohemian loafers in various rôles. Bâton wielded by Stückwangler.

### Billets Doux

9.30 p.m. POSTE RESTANTE PARISIENNE. Revue, featuring Enid Stamp-Taylor and Billet Leonard, readdressed from the Dud Letter Office, Mount Unpleasant.

### In Thun To-Night

11 p.m. BERNE, relayed by Chard and Burnt Ash. Excerpts from his Visitor's Register by a Swiss hotelier.

### Here To-day and Gone To-morrow

THE history of the MS. of Smetana's opera, *The Buttered Bread*, is a most romantic one, for it possesses the distinction of having been lost no fewer than fifty-seven times, fifty-three by Smetana himself and four times by his typist, Fräulein Pumpernickel. Some of its subsequent recoveries have been well-nigh miraculous. In 1872 it was found in a disused butter-churn in a Burmese dairy. Five years later it was returned with four of Mr. Gladstone's shirts from the Hawarden Temperance Laundry. In 1890 Mr. J. N. Maskelyne suddenly produced it from a borrowed top-hat, out of which he had previously extracted nothing but bowls of goldfish. Last summer it was again rediscovered by a retired fog-signalman of Leighton Buzzard, who found it in a trouser-press which had formerly belonged to Georges Sand.

In the same receptacle were found the

rough sketches for a concerto for four cathedral organs and a police whistle, an oleograph portrait of Queen Victoria being not amused at something, a recipe for toad-in-the-hole, and a writ of Habeas Corpus made out in the name of a Mrs. Amelia Dinwiddie, of Steeple Bumsted.

### The Russian Ben Travers

TCHOKE-OFF, whose latest farce will be broadcast on Wednesday, is the author of 3,097 farces in all, including adaptations for the Russian stage of our own Mr. Robert Browning's "rollicker," *A Blot in the 'Scutcheon*, and P. Bysshe Shelley's no less hilarious *Prometheus Unbound*. Tchoko-off's method of work is characteristic of the man, for he is not a playwright by profession, but a designer of stomach-pumps. All his MSS. are written in tincture of iodine on very thin slices of cheese. His most recent work has been

written three times. The first version was eaten by mice, and the second inadvertently converted into a Welsh rabbit by Muck, his cook.

### A Schubert Anecdote

SCHUBERT omitted to start his "Unbegun Symphony" in the year 1818. At that time he was giving the fascinating Caroline Esterhazy lessons on the double-bassoon, and in a letter to Messrs. Francis, Day and Hunter, who had just undertaken a threepenny edition of "The Erl-King," Schubert complains that he has already not had the opportunity to complete unbeginning the first movement. Asked one day by his friend Mayrhofer in what key he hadn't begun to write it, Schubert replied: "G sharp minor." "Why?" asked the poet. "What a fatuous question!" was Schubert's retort. "Why don't you ask W. G. Grace why he never scored ninety-three?"

# There is Mistletoe in Japan

By A. F. THOMAS

Few countries in the world enjoy greater facilities than Japan for celebrating that good old-fashioned Christmas, the absence of which the West continues to deplore each year. Those Westerners who have not been to Japan would be greatly surprised to see how closely the Japanese Christmas resembles their own, or what they would like their own to be. In fact, since the depression in the West, Japan has perhaps a Christmas nearer to the time-honoured Dickens type than has the West itself.

Let us glance for a moment at the Christmas setting in Japan. To begin with, it is impossible to escape the pine and larch. A traveller in Japan will find that there are hundreds of places where it is easy to imagine that he is in Germany, the land of romantic forests and the home of so much that is associated with Christmas throughout the world. Japan's volcanic soil is the home of the pine, for few other trees are strong enough to live on the volcanic crust that the country can alone offer to Nature; and Christmas trees are abundant. Mistletoe is cheap, too, though kissing is not a Japanese indulgence, even at Christmas; and it is used for purposes of decoration during the Christmas season. Beautiful holly and other evergreens are as plentiful in Japan as anywhere in the world.

## Like a Christmas Card

You will find more snow and ice in Japan than England and Scotland ever get. Japan is one of the greatest ski-ing countries in the world to-day, and this in itself should prove that there is enough snow for those who prefer the good old-fashioned Christmases. The northern and western parts of Japan are always sure of a white Christmas, though in other parts of the country the weather is quite mild. Wherever snow falls in Japan there is a charming Christmas card effect, as the flakes lightly cling to the pine-needles or adorn some of the quaint examples of Japanese architecture.

So much for the aesthetic side of Christmas. As far as the traditional "good cheer" is concerned, game and poultry are plentiful throughout Japan, and turkeys, geese, ducks, pheasants, partridges, wild boar, sucking-pig, and even venison can be bought at the most reasonable prices at Christmas-time. There are good supplies of fruit, too, for few countries in the world can show more liberal quantities or a greater variety throughout the year. And there are plenty of nuts, especially chestnuts for stuffing and walnuts for the wine. In the Ginza, which is the great shopping artery of Tokyo, it is possible in many good restaurants to eat an excellent eight-course Christmas dinner, including roast turkey, roast pork, plum-pudding, and mince-pies, for the sum of two yen—about half-a-crown to-day.

Wines and liqueurs are not included in this price, but even these, in spite of the increasing cost of living, due to the depreciated Yen, may be bought within reason throughout Japan. I should also mention that Japan is now distilling a whisky that even the Scottish residents appreciate.

Do you like coffee? Well, you can get some very good coffee in Japan. In fact, I can say in all honesty that Japan's coffee is better than that which is usually found in England. And since the trade agreement with Brazil it is quite cheap.

Must you have crackers? You can easily

get them, either a British make-or the excellent variety "Made in Japan."

## No Family Reunions

From this it will be seen that, on the material side, there is everything in Japan to permit one to celebrate Christmas in the traditional way; but it would be unfair to say that things are quite the same as in the West. This is only to be expected in view of varying traditions. One misses the family reunions around the good old English fire, while one waits for the church bells to ring in Christmas. (I believe that the Englishman misses the church bells more than his home-fire, his Christmas dinner, or his Scotch whisky.) Part of the atmosphere is missing, and all the beautiful things that Japan has to offer instead cannot quite make up for it. It is the same when a Japanese spends his great New Year festival abroad. He may get the church bells and plenty of them. But the chimes are not like those of the temple bells that he has heard ever since he was a baby on his mother's back. It is this difference that marks the peculiar charm of each country, and proves that it will never be possible to internationalise certain inherent national traits and customs. The trappings are there, but something of the spirit is lacking. This is inevitable.

There is one thing, however, that it is possible to internationalise, and that is the Spirit of Christmas. Japan is assimilating this more and more each year, and whatever the religion to which we may belong, and even if we pretend that we have no religion at all, our thoughts will centre in that Cradle at Bethlehem in which Christ was laid and Christmas was born.

In conclusion, I am sure that my Japanese friends would like me to wish, on their behalf, a Merry Christmas and a Happy New Year to WORLD-RADIO and all its readers.



Father Christmas advertises a store in Town Street, Tokyo



WHO IS NOT FAMILIAR WITH THE STRANGE BEAUTY OF CONTINENTAL JAZZ?

THE BURNING, YEARNING NUMBER THAT WE HEAR FROM RADIO-PARIS.

THE HAUNTING MELODIES THAT COME FROM STUTTGART

THE MAD GAJETTY OF A RUMBA FROM ROME

OR COPENHAGEN AND

THE WILD JUNGLE RHYTHMS THAT ARE PLAYED IN BARCELONA

NICOLAS BENTLEY

“Le Jazz Hot”

Mrs. BELLOC LOWNDES writes on

# BUTTER

*Mrs. Belloc Lowndes—though, since she is a novelist her creative work naturally comes first—has always taken a close interest in the domestic side of life, and especially with everything that has to do with food and cooking.*

At last—I am tempted to say at very long last—the British housewife is being told how immensely important to the well-being and happiness of every human being is the question of his or her food.

When I was first married and far from well off, my friends were amazed at the amount of money I deliberately spent on poultry, fish, vegetables, and fruit. We were a group of young people who called themselves “the merry wives of Westminster.” We all lived in very small old houses with basements, for in those days flats were very large and very expensive; and even the most lighthearted among us must have spent many anxious hours each month, if not each week, wondering how to make both ends meet.

In those days it was possible to buy a fifteen-pound crock of excellent, slightly-salt butter for round about half a sovereign, and except in the hottest weather I always had a crock going in my larder.

I also went to great trouble over providing a varied diet for my tiny household, and I am certain it is owing to that fact, and especially to the further fact that I never in any way rationed butter, that my household was miraculously exempted from the many epidemics of influenza which swept London.

Let me earnestly point out that the finest Australian butter now costs only a penny or two more a pound than do the butter substitutes, so there is little excuse for using the latter instead of Empire butter.

I will only touch on the experiments that have been made in late years with regard to the value of butter compared to other foods. It was found that a number of children, given plenty of butter over even as short a time as three months, were extraordinarily better in health and general condition than were a similar number of children who had been deprived of butter during that time. Thus it is plain that plenty of butter, quite as much as an apple a day, will keep the doctor away. To deprive a little child of as much butter as it is inclined to eat and as his or her mother can afford, is to my mind not only foolish, but very wrong.

But with butter, as with everything else, sense and intelligence must play their part. As Mrs. E. V. Lucas, in her fascinating book, *Vegetable Cookery*, well puts it: “To use too much butter is as great a crime as to use none. Vegetables swimming in butter are nauseating.” Even so, I feel sure she would agree with me that very few British housewives nauseate their families or employees in that sort of way.

I think the kind of woman whose kitchen is her spiritual home will feel interested to learn that all chefs use clarified butter, both for frying and for *sauté*-ing vegetables. To me that is a counsel of perfection, and, as far as I know, butter has never been clarified in my kitchen. Just plain butter is used, and, I need hardly add, for I think everyone will agree with me as to this, that if one can afford it, the best English butter is preferable to any other.

Soup is seldom served nowadays, indeed hardly ever in the average simple household. But for those who have delicate digestions, and who, maybe, are no longer young, a vegetable soup, and especially an onion soup, makes a delicious and nutritious meal. Substance to any

soup, especially to any kind of beef tea or clear soup, can be added by slipping into the bowl, just before serving, what I can only describe as a “soft egg.”

Let me here make a digression for which I think and hope many an invalid will live to bless me.

It is a curious fact that in the innumerable books I have read concerning various forms of cookery, I have only once seen a recipe given for this very simple and most nutritious way of cooking an egg. Such eggs are soft inside and hard outside, and I think those of you who are not aware of how that result is achieved will be amazed at its simplicity.

The eggs must boil for exactly six minutes. Then without waiting a moment—and therein lies the whole secret—each egg must be lifted

out and put *at once* into a basin of cold water. When cold, take off their shells, and they are ready for use in any way that your fancy may

suggest. Thus in winter they may be heated up and served on a purée of vegetables or of minced meat or chicken, and in the summer they are very nice served with mayonnaise. But whatever is done in the way of heating a “soft egg” it never goes hard inside.

After this digression, which I hope will be approved, allow me to give a simple recipe for inexpensive onion soup in which butter plays a part.

For three or four people peel two medium-sized potatoes, and four or five onions. Slice both the potatoes and the onions and put them with an ounce of hot melted butter at the bottom of a saucepan. Toss the vegetables in the butter till they are a pale golden brown, and then add just over a quart of hot water, preferably that in which vegetables have been boiled. Let the whole simmer for half an hour, add salt and pepper, and then pass it through a strainer. At the last minute add about a cupful of hot milk. French people always add to onion soup just before serving some squares of bread, fried in butter, to which have been added grated cheese.

It is strange how little butter is used in cooking fish in England. Yet every kind of fish, from sole to mackerel, is peculiarly delicious if baked in a well-buttered fireproof dish. In the case of mackerel, which is in season during the whole of the cold weather, and which is, for those who like it, a dish fit for a king, a valuable addition will be found to consist of what goes by the grandiose name of *Maitre d'Hotel sauce*. This sauce, which is good with any white fish, can be made in a few moments, for it simply consists of a couple of ounces of butter cooked for one minute, to which is added a few drops of water, the juice of a lemon, and, just before serving, a minute amount of chopped parsley.

Another butter sauce which is hardly ever seen in this country, and which goes admirably with cod, hake, and turbot, is black butter sauce. This simply consists of butter which has been melted till it goes brown (not black). A few capers may be added, but black butter sauce is quite good served by itself.

Few dishes are more delicious, and I may add more healthy, than a chicken roasted very slowly and basted, while it is being cooked, with butter. May I say that slow cooking makes for the digestibility of all food, and is the real

secret of what is generally called French cooking. When I was a child, living in my home near Versailles, luncheon was served at midday, and the cook started making preparations for the meal a good four hours before it was to be served—that is at eight o'clock.

A medium-sized chicken, cooked in the French way, takes a full hour, and a good deal of clarified butter will be found in the pan. This should be served very hot, separately, in a gravy boat, and if the chicken has been properly basted it will be found to be extremely delicious. This should be the only sauce served with the chicken, and will be voted by most people incomparably nicer, as well as healthier, than even the best-made bread sauce.

The old Continental complaint, that the English only knew two vegetables, cabbages and potatoes, and knew no way of cooking them except by boiling them in water, was never true. But it is quite true that only in recent years has there been anything like an attempt to introduce separate vegetable cookery into English kitchens. Yet even the despised cabbage, if young and fresh, can be made into a very pleasant one-course dish if, after it has been thoroughly cooked, it is cut up into small pieces and tossed in a saucepan to which a good piece of butter, as well, of course, as salt and pepper, has been added. But this is one of the examples when the vegetables should not “swim in butter.” In fact, the butter should be felt but not seen in any *sauté*-ed vegetable.

And now I should like to say a word or two about sieve cookery. Almost all vegetables are nicer if they have been passed through a sieve, but the process needs time and care: a vegetable presser will be found easy to work and produces excellent results.

Butter should never be used in conjunction with hot meat, the only exception being that a pat of fresh butter can be added just before

## and still more butter

serving to any kind of grill. This is particularly true of grilled kidneys.

British sweets are second to none. Even so, at the end of a cold meal a sweet omelette will be found a joyous surprise, and will only take—may I say a few moments? to make. To my mind an omelette should only consist of eggs and butter.

My friend, the famous Marcel Boulestin, has given his name to a marvellous omelette, and his recipe for a plain omelette is far the best I have ever met.

He allows two eggs for each person, and after having beaten them together with a reasonable amount of salt and pepper, he pours the mixture into a pan in which a small amount of butter has been slowly melted. He then stirs the mixture with a fork, shakes the pan, passes his fork round the omelette to prevent it sticking, and then quickly folds it over and slips it on to a hot dish.

Another expert has just informed me that the secret of good omelette-making is that the pan should be already so hot that the whole process can take place off the fire, if only the pan be hot enough!

The question of omelette seasoning is simplicity itself. Almost anything which is already cooked can be added to an omelette just before it is folded over. Asparagus tips, kidneys, sausages, and so on—also even a teetotaler will be found to enjoy a rum omelette!

# The Family Tradition: by J. D. Strange



THE hut—if the building could be dignified by that name—was composed chiefly of packing cases. But it was a shelter, and its darkened interior was a degree or two less hot than the outside world. The season was a phe-

nomenally hot one—even for Nigeria—and the African sun made life in the day-time well-nigh unbearable. At night it was little better. A human being lived in a perpetual bath of perspiration, and life's chief occupation for the few white people was to assuage an ever-present, overpowering thirst. It did not matter what one drank. The main thing was to imbibe liquids. If one did not so imbibe, life would be short, for in that heat the human frame consumed itself.

Cunningham, tall, thin as a rake, and aristocratic—even in shorts and an old drill shirt—lay stretched out on a dilapidated camp-bed. He was alone. Generations of the bluest blood of England flowed through this young man's veins, and had made of him an Inspector (salary £220 per annum, and certain allowances) of coffee under the new Government grading scheme.

Suddenly he raised his head. There was a sound seldom encountered in that remote neighbourhood. It grew louder, and presently a motor-bicycle bumped across the open veldt and drew up before the hut in a huge cloud of dust. The rider drew one leg stiffly over the saddle, and allowed his machine to fall over on the ground without making the slightest attempt to save it.

The man on the bed grinned politely at him. "Hullo, O'Rourke," he drawled. "Boys engaged in a little private massacre? That bit of stuff in ould Oireland jilted you? Or have you discovered an outbreak of bubonic plague?"

O'Rourke was Cunningham's nearest neighbour. He lived some eighty miles due north, and a motor-bicycle journey in this heat indicated some happening of paramount importance.

"Worse than that!" The newcomer's voice betrayed the country of his origin. He looked about him and sat down heavily on an upturned tea chest.

"Oh——" Cunningham looked serious. "It's the heat," the Irishman groaned. He picked up a towel and wiped the dust and sweat from his face. "I drank the last dhrop four days ago," he blurted out suddenly.

"No!" Cunningham half sat up, a look of concern on his face. "How have you existed since?"

"On water——" his visitor moaned. Cunningham started to laugh immoderately. "So you belted that heap of scrap iron over here in hopes of——"

"A sight of the bottle," O'Rourke put in eagerly. His gaze travelled over the boxes and piles of rubbish as if in search of some definite object. Suddenly he uttered a loud cry, and, jumping up, strode across to the other side of the hut, where he picked up a bottle of whisky which stood on a pile of petrol tins. "Full!" he whispered reverently. "Where do yez kape the corkscrew?"

"We shan't be opening the bottle." O'Rourke stared from the bottle down to his

companion with a look of almost fatherly concern. "But——"

"Do you realise what day it is to-morrow, Terence?" Cunningham interrupted him.

The Irishman scratched his bullet head. "It might be Tuesday, and it might be Wednesday," he said. "What does it matter, it's opening time every day here, Cunningham dear."

"I'll tell you what day it is——" Cunningham disregarded the reply his question had produced. "It's Christmas Eve to-day."

O'Rourke looked frankly puzzled. "And whose fault is that?" he wanted to know.

"You miss my point. If to-day is Christmas Eve, to-morrow must be Christmas Day."

"Plaze the pigs, so ut must!" O'Rourke surveyed the man on the bed with deep admiration. "Tis an overdose of knowledge ye have. But still I don't see——"

"I must explain then, Terence," Cunningham sighed, raised one hand indolently, and let it fall again on the bed. "I always celebrate Christmas Day with a bottle of the best my—er—emoluments will permit. It is an old Cunningham custom. My forbears drank their oldest port and laid down more for future generations: Christmas Day has always been the Day of the Year with the Cunninghams. There is a tradition to maintain."

"We could put the cork back in after a wee taste."

"No! If Christmas Day were to be allowed to pass as all other days do out here, where should we be? Why, you don't even know the day of the week," Cunningham raised himself on one elbow and directed a lofty look at his companion. "I'll wager you hadn't the faintest conception: the festive season was upon us."

"I'd missed a day here and there since Saint Patrick's Day," Terence admitted. "But they were only small wans."

"I have no intention of getting into your lamentable state of forgetfulness. A Cunningham, in no matter how isolated, how uncivilised, a part of the world he may be, never loses caste, never forgets his duties to civilisation. Which is why I preserved that relic you hold in your hand. Pass me that bottle, Terence; you might drop it!"

The Irishman handed it over with the air of a moneylender parting with an I.O.U.

"Thanks. This bottle is to celebrate Christmas Day. Not any old day, Terence."

O'Rourke imposed a remarkable restraint on himself. A great issue was at stake. "There's people that moves days about," he said, his eye on the bottle. "They make Easter come on all sorts of days, and sure 'tis said they even tried to put Whit Monday on a Tuesday one bad year. 'Twould be a little thing to advance Christmas a day. Phwŷ, Jimmy me bhoy, 'tis Christmas now—hurroush!" He let out a wild cry, and, jumping up, reached for the bottle, but Cunningham pushed him away.

"It is *not* Christmas Day," he said. "And if you think you can juggle with time like that, you've got another think coming to you. I'll tell you what, you can stay the night here, and we'll have a look at the bottle together in the morning."

"Commissioner fella visiting to-morrow," Terence shook his head mournfully and looked across at Cunningham. "Just a drop, Cunningham, dear—a thimbleful——"

"No, the family tradition is at stake. Not a drop until to-morrow."

Terence groaned and sat down again on the tea chest. He lifted his legs and laid them across a battered cabin trunk and lay back, closing his eyes as he did so.

"Tell the Commissioner bloke I died—for a tradition," he murmured in a hollow voice.

Cunningham chuckled and became silent. For some time no sound marred the peacefulness of the hut's interior.

Presently, however, O'Rourke opened his eyes and gazed about him. He sat up.

"Been furnishing?" he asked in normal tones. Cunningham followed the direction of his companion's gaze.

"Oh, that," his air was admirably casual. "That's a wireless set."

"Tis useful ut'll be here," O'Rourke remarked. "For the elephants and the monkeys and other folk are after having a broadcasting station quite near."

"I listen to a pukka broadcasting station," his friend observed with dignity. "I listen to London."

"And ould Oireland and Mary O'Mullet scolding the pigs on Sunday morning, and that broth of a son of hers kicking the milk pail over, and—and Mars?"

"I am quite serious. That receiver I have had sent out works on the short waves, and I can receive the London programmes from Daventry." Cunningham lifted one arm languidly, and looked at his wrist watch. "If you don't believe me, try it. London will be on the air any minute now."

O'Rourke rose and walked across, and stared at the wireless set a trifle uneasily.

"Oi'll try anything wance," he said. "Oi'd rather be shocked to death, onyhow, than die of thirst. Phwat do Oi do?"

"Press that button, the one with the white spot on the edge."

O'Rourke peered at the set, hesitated, then pressed the required button. A slight hissing sound came from the receiver, and Terence withdrew in some relief.

"Tis the sound of the electric fan in Flannigan's saloon just off Piccadilly," he murmured, his head cocked on one side. The hissing sound continued.

Cunningham glanced at his watch. "Another minute to go, I think," he said. "That noise is the station, carrier wave. Just think—a sound emanating from dear old England where it's cold, and the fields are white with frost——. You'll hear somebody speak in a minute."

"Tis thirsty work waiting for somebody to speak," said O'Rourke. "That bottle now——"

"Will stay on this box. I want to impress upon you the necessity of remembering the blessings of civilisation. I want to make sure that you will emulate a Cunningham who has never been known to forget a date. That bottle will be opened on Christmas day, and——" further speech was interrupted by a loud voice which suddenly filled the room.

"This is the British Empire Transmitter at Daventry, on a wavelength of 31.55 metres——" the voice went on to speak of G for Greeting and B for Broadcast. O'Rourke stared at the loudspeaker with mouth agape.

"To our listeners in far off lands," the voice continued. "Englishmen in distant places throughout the Empire, kinsmen and fellow countrymen, friends and relations, brothers, sisters, and loved ones—GREETINGS! To-day, as you all know, is *Christmas Day*——"

O'Rourke leapt up, and the remainder of the wireless speech was lost in a wild howl. He darted forward and snatched up the bottle, brandishing it in Cunningham's face.

"Away wid ye," he roared. "Did Oi not tell yez it was Christmas Day! Why, yez can't even remember the most important day of the year. 'Tis ashamed I am of ye and the Cunningham tradition. *Where's the corkscrew?*"

# Jack Hylton's views on RHYTHMIC MUSIC in the U.S.A.

Of those things that have most impressed me during the past year or so, I can safely state that nothing has exceeded my recent brief glimpse into the workings of U.S.A. broadcasting.

We in England find it difficult to realise the vastness of this form of entertainment in the States. Instead of fewer than a dozen main stations, one finds hundreds. In New York City alone there are five important stations, of which the principal ones are those of the Columbia Broadcasting System and the National Broadcasting Company. The studios of the latter company, situated in Radio City, New York, are the show-place of American broadcasting.

A never-ending stream of visitors flows through the premises each week, accompanied by guides who explain the complicated workings of the organisation. For this privilege—and it is indeed such—the charge is forty cents per person.

## Plenty of Orchestras

Recently a survey of broadcast music revealed the fact that forty-one orchestras were "on the air," *via* six important stations in New York City, between the hours of 5 p.m. and 1 a.m. the following morning. Such is the amount of music played each day that the NBC prohibit current popular tunes from being repeated within a period of five hours, from 5 p.m. to midnight each day.

Another extraordinary feature of broadcasting in the U.S.A. is the fact that the larger companies in New York rent theatres on Broadway for the performance of outstanding broadcasts. Admission is free, and tickets may be obtained by writing to the company concerned. As is to be expected, the theatres are always filled to capacity by extremely appreciative audiences. I visited one of these theatres when Fred Waring and his Pennsylvanians were broadcasting. Occupying the stage was the band, and at each side, in glass-panelled booths, could be seen the control men and other technicians at work. The audience applauded at the end of each number, and generally behaved just as they would in a legitimate theatre. At the end of the broadcast, which concluded with a talk upon the product of the programme's sponsors, a second performance took place. This was solely for the benefit of the theatre audience, as it was not broadcast.

Incidentally, I was interested to observe that the trombonist and arranger with this well-known band was none other than Leo Vauchant, whom I discovered and brought to England some years ago from France.

## Keen Competition

Although it is more ably presented than in England, I do not think that American dance music is greatly superior in any way to the music heard nightly from London. Most people in this country labour under the delusion that all American bands are vastly superior to our own. They forget that we hear only the best of them, that America is a huge country, and that, as a result, competition is keener. I should not say that American dance orchestras are better than our own. The difference is that, whereas we can probably offer half a dozen

outstanding combinations, America can produce perhaps a hundred equally good.

However, I am diverging.

Not only in the best hotels, but in second and third class hotels, there are radios in every bedroom. In the morning, with one's breakfast and newspaper, is brought a bulletin of broadcast programmes obtainable on the set by the bedside. Instead of wavelength numbers, the set carries a series of perhaps six to ten notches. One turns the dial to the number required and a programme comes straight through. There are no atmospheric, and, despite the fact that all important programmes are commercial, the announcements regarding the products advertised are usually few and far between.

Radio crooners and band leaders no longer have to depend upon friends to tune in and report the merits or shortcomings of a programme, nor does the crooner or leader have to guess just how his broadcast will sound, for several recording studios have eliminated this uncertainty. To-day the established crooner or leader desires to know beforehand how an important

broadcast will register. So he arranges with a recording studio, for a reasonable fee, to put on the programme at a studio and have it recorded in another room.

The record of the broadcast is then placed on a gramophone and played in its entirety. The leader or crooner listens to the programme as many times as he desires and makes notes of its continuity, its strong and weak spots. After he has revised the programme he makes a second broadcast from the studio and has another record made. Not infrequently an artist will revise and broadcast an important programme from the studio, with a record being made of each broadcast, half a dozen times before he feels it is good enough to go "on the air," or as an audition for some commercial sponsor.

Some band leaders make records of several types of programmes, which they play for interested sponsors. This method saves a leader from assembling his band every time he finds a prospective sponsor.

## Rudy Vallee

Perhaps the most outstanding performer "on the air" in the U.S.A. is Rudy Vallee, a curly-haired youth who employs a distinct and very un-American brand of showmanship—restraint.

I have been told by more than one person that there is no one in broadcasting who knows more about the microphone than Vallee. I can well believe it. He superintends each of his broadcasts from beginning to end, and even types out the programme and times himself. He is absolutely tireless and drives his men unmercifully. Yet they all respect him and admire his methods; chiefly, I suppose, because he himself works harder than anyone. He is conscientious to a degree, chooses all his guest artists himself, and is always eager to lend a helping hand to talented unknowns.

Other outstanding artists whom I heard were Paul Whiteman, who remains "King of Jazz"; Rubinoff, the violinist, who, in addition to providing an excellent orchestra on the Chase and Sanborn Hour, acts as foil to Eddie Cantor's comedy; Guy Lombardo, who contents himself with a programme of sweet music, simply played, and who, without an accompaniment of guest artists and other paraphernalia, is probably earning as much money as any other leader in America; Duke Ellington; and the Dorsey Brothers.

## "Hot" Music Unpopular

"Hot" dance music is not very popular with American listening audiences, and if one wishes to hear negro orchestras playing music of that type one must listen to "sustaining" hours—i.e., hours which have not been taken by an advertiser. Then negro bands are often relayed from *palais de danse*, which pay the broadcasting company for the privilege of being able to advertise their premises in the announcement.

One also hears in sustaining hours those artists who are trying to bring themselves before the notice of sponsors.

Rudy Vallee wrote in a recent article that broadcasting was the "greatest benefit known to mankind." It may not be quite that, but certainly in the United States of America it is the most important factor in the entertainment world—an octopus whose tentacles embrace every city, town, and village from east to west, north to south, at every hour of the day or night . . . a modern miracle.



PROFESSOR MICHAEL STRONG had nearly finished his observations for the night, when he noticed a streak of light, which, somehow, seemed to him to be superfluous, in the constellation of Hercules. Gentle manipulation of delicate controls altered the focus of the telescope and the streak of light became an unmistakable comet.

Astronomers have their routine. Professor Strong, although somewhat excited—he was still a young man—did not remain with his eye glued to the eyepiece all night, but merely moved an adjustable arm, which brought a camera into action, and left it to the clock mechanism to follow the trail of the comet through the silent hours of the night with the persistence of a police hound on the trail of a criminal. Next morning the photographic film had a story to tell.

Comets visit our skies at well-known regular intervals and they are recognised by their well-defined tails and other conspicuous features, which soon disclose the identity of the comet. But on this occasion its incognito was well preserved. The comet did not appear to tally with any of those known. Moreover, it must have acquired company on its way, as no astronomer had ever seen such a comet-tail in his life. Even at that great distance its shape was recognisable. It looked like a fully open fan, with faintly visible ribs and a crescent-shaped incandescent body of considerable size at the narrow end of it.

This was enough for Professor Strong. Making sure from his reference books that the comet was not catalogued, he sent cables to the astronomical societies throughout the world, as well as to some of the leading observatories, asking them to keep an eye on the stranger, and, of course, as a matter of precaution against the activities of gentlemen who are always the first to discover something that has been already discovered by somebody else—he had a short talk with a friend who was Editor of a great newspaper.

While the photographing of the comet went on night after night, the Professor spent his days among the vast bookshelves of the British Museum, looking for a clue. He tried the ancient Chinese chronicles first. He could not read Chinese, of course, but he could recognise pictures, and the Chinese astronomers were great draughtsmen. After a few days of hard work he discovered, with the help of a librarian, a very old manuscript containing a picture of the mysterious comet.

An expert was called in, and within an hour the translation was ready. The Chinese *savant* informed his Sovereign that the gods had sent a fiery dragon with a fan-shaped tail flying across the skies to swallow the mighty giver of light and heat as well as the moon, so as to deprive the Chinese Empire and its peoples of the very means of existence and to cause them to perish miserably for their past delinquencies and disrespect to gods. The old fellow must also have been mixed up in politics, as he interpreted the shape of the comet-tail as a sign and a clue to the gods' disfavour. There was no doubt, he said, that it was a warning of the growing influence of the ladies at the Emperor's court who meddled in the affairs of State and drained the Emperor's purse at the expense of the taxpayers.

Then he came to cast-iron predictions. He said that the swallowing of the sun would cause an intense cold and that many would perish and would continue to perish till the dragon was made, by intense prayer and penitence, to disgorge. As a precautionary measure, in order perhaps to spoil the dragon's appetite,

he recommended the flying of millions of kites, provided with noisy attachments, and the unceasing beating of gongs and other clamorous instruments. This performance might alarm the gods and cause them to change their intentions.

But apparently, the gods and the "dragon" were made of stern stuff. Far from being frightened off, the combination had managed to cause a great deal of damage by converting fair summer weather into what would have been out of place even at the Poles.

The next description of the same comet was found in an old Slavonic manuscript written by a Russian monk, Peter Ozarov, one of the learned men of the Solovetsky Monastery, which was situated on an island in the White Sea.

# THE STRONG COMET

Ozarov also supplied obligingly a sketch of the comet, but he drew the Chinese astronomer's fan as a head of an axe. It appeared that, just a year before the comet was spotted by the monk Ozarov, the Tsar had ordered the execution of a very popular courtier, a certain *boyar*, Dolgoroukov, and as the latter gentleman was beheaded with an axe, the monk was certainly justified in jumping to the conclusion that this sign in Heaven had something to do with the *boyar's* death.

He was clever enough, however, not to tell his Tsar that the axe in the skies was a sign of warning against future executions, and perhaps a punishment for the dark deed. On the contrary, he proved that the comet was sent by Heaven as a sign of approval of the Tsar's judgment and as a warning to other malefactors.

Perhaps for this reason, or perhaps owing to ignorance in these matters, Ozarov did not predict and did not mention anything about the comet hiding the sun and causing intense cold, but then, perhaps, one could not see much difference in weather conditions in the middle of the winter in the White Sea, when the sun is well hidden in any case.

After that all traces of the comet in question had disappeared from historical annals. The Chinese *savant's* work was undated. The monk Ozarov dated his manuscript as two years after the arrival of the new Bishop Simon, which did not help much. But it looked as though the comet had acquired the habit of coming and going every thousand years or so.

Having learned these simple facts, the astronomer decided to keep the comet under constant observation day and night and try to assess the density of its tail.

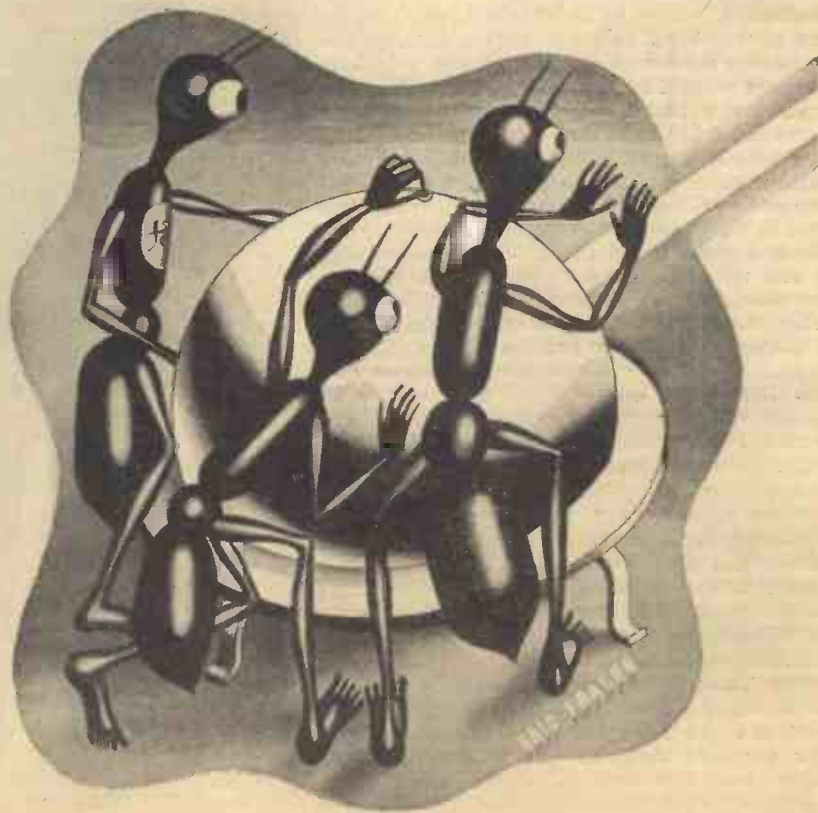
When the time came, the comet did everything to maintain its ancient reputation. As it came nearer and

nearer to earth it began to encroach on the sun's rays, and when it penetrated the orbit of Venus and started to move parallel to the earth's line of motion it shielded the sun for some three weeks. Fortunately, it travelled at a speed somewhat higher than that of earth, so that it was able to gain on it and thus reduce the period of shielding to a minimum.

The first two weeks were really bad; but conditions improved during the last week, as the end of the tail was not so dense as the rest of it, and most of the sun's rays could filter through. The dense blanket of the tail suddenly cut off the sun's rays as if in an eclipse, and the whole world was plunged into Arctic conditions. Everything went wrong at once. Sudden blizzards and snow completely

dislocated all traffic. This continued for a few days. Then, owing to greatly decreased evaporation from the oceans, the atmosphere became dry and a hard frost set in. Water pipes froze, and the water supply was cut off. People had to melt ice and snow to get water. Fuel rose in price and became scarce on account of the dislocated traffic. Furs became most prized possessions and could be obtained only at exorbitant prices. Many of the poor died from cold and under-nourishment.

This refrigeration, however, was not the only damage that the fan-tailed comet caused. It annoyed intensely the broadcasting authorities in every country. Just at the time when broadcasting was of the highest importance as a means of encouraging the population and ensuring simultaneous action by all the municipal and other authorities, the range of broadcasting stations had dropped alarmingly, three days after the comet came between the earth and the sun. London listeners, for instance, could get only Brookmans Park and Droitwich, and those not very well, as the ground froze solid to some considerable depth, failing, to a large extent, to perform its usual duties as an "earth."





Short-wave reception became impossible, with the result that thousands of amateur transmitters in every corner of the globe were driven nearly to desperation. Some of them had spent days taking their transmitting gear and their receivers to pieces, suspecting every component in turn.

The third week somewhat relieved the situation. From then onwards conditions began to improve, till finally the comet gained on the earth and continued its lonely journey into space, ceasing to be a nuisance and becoming once more merely a curious object in the night sky.

It was during the second week that Mark Simpson, an undergraduate of the University of London, decided to check up on the reception

## by Ralph Stranger

on all the wavebands. Not trusting his "earth," he rigged up a frame aerial to his superhet, and after roaming all over the existing wavelengths he finally managed to get what he thought was a Russian station, Sverdlovsk, on 800 metres. Although he did not know Russian, he realised that the mad succession of clicks and hisses was too extravagant even for Sverdlovsk. It sounded like a mad cacophony. Then a thought struck him that it might be television signals. Unfortunately, he had no television equipment; and the college being closed on account of the intense cold and general dislocation, the college laboratory was not accessible.

Still, feeling curious about the signals received, he went to see his Professor, who lived about two miles away.

Professor McLeod lived in a flat above his private laboratory, which contained a great deal of college apparatus and was used by the students as a transmitting and receiving station in radio research, which maintained daily communications with a similar installation at the College itself.

As soon as the Professor heard about the unusual signals from Sverdlovsk he became interested. He knew that this must be an exception to the general rule prevailing at the time, as no other distant station could be heard at all.

Having checked on the nature of signals with the help of an ordinary receiver, he put together, with the help of Simpson, the latest form of television apparatus, based on the oscillograph system. It took them some considerable time to synchronise the whole thing with "Sverdlovsk," and many controlling magnetic fields were tried out before the right combination was discovered, by the all-conquering "trial and error method."

At first the cathode ray beam performed some queer zigzag jerks that did not indicate anything in particular. After some further adjustments, pictures began to flash on to the screen, and the colour of the cathode beam underwent startling changes.

"Colour television, by Jove!" exclaimed the Professor, greatly excited; "I did not know that the Russians have advanced so far in their television. Why, it is marvellous! Look at the definition."

The screen showed red sandy deserts without a vestige of vegetation, terrific sand storms obliterating the view now and again. These were replaced by dark, mysterious forests of unfamiliar trees, vast belts of brownish growth that looked like a crop of some description, low-lying shady valleys in which vast herds of unfamiliar beasts moved with slow deliberation. Now and again greenish skies with fleecy white

clouds came into view, with rapidly-moving dark specks in the distance. One of these specks suddenly became magnified and showed itself as a huge sphere, with transparent windows, flying in space at a remarkable speed so far as it could be judged against the background of cloud.

The two experimenters were much puzzled. "Where can the Russians be getting these pictures from?" the Professor wondered. "There is nothing like this in Russia or anywhere else on earth so far as I know. Never heard of spherical flying craft except balloons. I wonder if they have prepared some special cinema films and are showing those as an experiment? But then, there is still the question of coloured television. . . ."

All through the night and several succeeding days the Professor and the student sat in front of the television screen, feverishly taking notes upon each succeeding picture, taking turns to leave the screen

for food or sleep.

The next series of pictures showed the interior of a vast, roofed-in city, brilliantly illuminated with diffused artificial light. Street rapidly succeeded street, as if somebody were carrying the television apparatus in a fast-moving car. Peculiar streets they were, too. The houses, if they were houses, looked like square boxes painted in weird colours, with no windows and very narrow, slit-like doors. The roofs appeared to be flat, if they existed at all. The streets were wide and shiny, as if the road surface were made of some bright yellow metal that looked like gold. Overhead cables stretched in all directions over the houses, cables along which flashed with incredible speed cylindrical-looking objects of torpedo shape.

The streets were filled with large, moving crowds. The people looked very tall and slender, with wasp-like waists and spindly legs. They appeared to be encased in some sort of shining armour. It proved to be difficult to judge the height of individuals, who appeared, on the average, to be about half the height of the houses. There was no standard whatsoever, nothing familiar that could give some idea of size.

One could not distinguish sex; all the individuals looked alike, except for a centre disc worn on the breast, and bearing unfamiliar characters, not unlike Arabic, which varied with each individual.

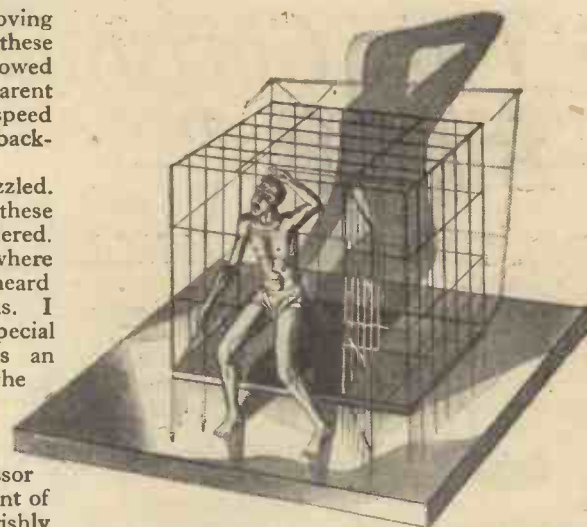
Later on the scenes changed again.

An enormous cavern, brilliantly illuminated, appeared on the screen. Its floor was represented by a vast sheet of water disappearing in the dim distance. The illumination of the cavern appeared to be uniform without any shadows, as if the whole place was bathed in a uniform glow. Numerous craft of the most unfamiliar aspect were flashing past over the surface of the lake or the sea, skipping the surface not unlike outboard motor-boats. The crew of each craft was also dressed in shining armour.

On the following day there was what may be described as a forest-hunting scene. The forest consisted of stunted, very thick trees, with huge long tentacles instead of branches.

Half a dozen animated figures in shining armour moved cautiously among the trunks, apparently peering at something in the shadows. These tree-tentacles touched some of the figures and were rapidly withdrawn, hurt by the contact, as each time a tentacle connected with the armour, there was a brilliant flash, followed by a flame.

Suddenly, a tremendous writhing white form appeared from the dense shadows, and launched itself with tremendous speed at the intruders. But in the middle of its mad career it met with six blinding flashes and sank to the



ground. Its enormous trunk was promptly divided into portable pieces, and each hunter having collected a piece departed from the scene of the hunt. A large portion of the monster was left on the ground. And then a remarkable thing happened. The near-by "trees" extended their tentacles, as if animated by some intelligence, fastened them to the remains of the carcass, apparently, by suction, and started pulling in different directions. As soon as a portion was torn off it was lifted to the top of the trunk and dropped presumably into a cavity inside the "tree."

Next day the two observers were able to make a closer acquaintance with the inhabitants of the mysterious source of televised pictures. A face appeared on the screen which had all the characteristics of an ant, but with large intelligent eyes and a cranium that indicated considerable brain power. It was a monstrous face, in spite of its suggestion of intellect.

The head receded and dwindled in size and gradually revealed a slender ant's body, with two arms and two legs, and just a suggestion of slender antennæ over the forehead. The limbs appeared to be exceedingly thin, and yet carried a suggestion of enormous strength. Gradually the figure decreased in size, revealing the interior of the room, which looked more like a huge museum than anything else.

It was filled with orderly rows of apparatus, among which electrical machinery could be recognised. At the end of the room, raised on a large tripod, stood an unmistakable oscillograph tube, surrounded by coils and other pieces of apparatus, most of which were of unfamiliar character.

The large ant—it could not have been anything else—went to the oscillograph tube and slightly lowered its end. It then went to the other side of the room where it spent some time fussing around a large, metallic sphere with a camera shutter on the side facing the observers.

In the meantime another ant, somewhat smaller, brought in a cage inside which something moved, something that appeared exceedingly familiar to the observers. The ant opened the door of the cage and shook it out. A tiny human figure, a perfect model of a miniature man, he was very small as compared with the ants, landed on all fours on the platform, and immediately jumped to its feet. The man appeared to be looking desperately round, while the ants grouped themselves behind the sphere. A white beam flashed from the sphere, changed to dull red and caught the tiny figure of the man in its rays. The man disappeared in a wisp of smoke . . . and the screen went suddenly dark.

Professor McLeod, greatly moved by this inhuman experiment, gazed dully at the dark screen. Suddenly coming out of his coma, he jumped up and started manipulating fever-

(Continued in col. 3, page 872)

# "This Christmas Business"

By J. C. GRIFFITH-JONES

"Some say that ever 'gainst that season comes  
Wherein our Saviour's birth is celebrated,  
The bird of dawn singeth all night long.  
And then, they say, no spirit can walk abroad;  
The nights are wholesome; then no planets  
strike,  
No fairy takes, nor witch hath power to charm,  
So hallow'd and so gracious is the time."

—SHAKESPEARE.

What is the mystery about Christmas? Is it a grand delusion, a pretty fantasy that mankind has invented wherewith to escape the doubts and fears of some two thousand years?

I have spent Christmas in many strange places. Always the result has been the same. It gives one pause, it casts a spell. It almost convinces you that good-will after all is something more than a sugar-candy phrase, and that for one day in the year, at any rate, this is not such a bad old planet to try to live upon.

Christmas in the trenches during the World War was tragi-comedy. It was the greatest indictment of war I have ever known. Here were two great armies, sworn to kill one another to the last man, looking at the calendar and realising that somehow it was just not done on Christmas Day!

Frankly, we fraternised, unblushingly. We declared an armistice without a treaty. The common man took charge and the power of war lords and war offices might never have existed.

In the trench which was my little bit of hell a whimsical fellow chalked up on a board a seasonal greeting to the enemy. We held it up above the parapet for friend "Fritz" in his little bit of hell across "the way" to read, mark, and learn. We held it until our arms ached with holding, and our sides ached with laughing. This was the greeting:—

AREN'T WE A LOT OF  
SANGUINARY

FOOLS?

MERRY CHRISTMAS TO YOU,  
FRITZIE!

Guttural laughter re-echoed in the German front line. We had captured that stronghold with a human jest, though days of pummeling with high-explosive shells and of enfilading with machine-gun fire had failed to move the enemy! We shot oranges and German sausage at one another instead of bombs and bullets. A "Tommy" sacrificed on this strange altar of peace a plum pudding that his mother's loving hands had made, and "Fritz" devoured it greedily without remembering once that there was a war on and that it might by all the noble rules of warfare have contained deadly poison. . . .

## A Meeting at Cairo

I sat on the veranda of an hotel in Cairo one Christmas Eve. The night breeze had a warm caress, and the distant stars sparkled like jewels only partially concealed by a woman's light cloak. Within the hotel the orchestra was playing an old English ballad tune. I felt melancholy and must have looked it.

"Christmas has got you, my friend!" I looked up. The speaker was a tall, robust man with whom I had exchanged "Good day" once or twice. All I knew about him was that he had travelled widely. In the jargon of the hour he seemed to have the makings of a "tough guy."

"I used to sneer at this Christmas stuff," he said, taking a chair and leaning masterfully towards me. "Then on my wanderings I was made captive by a band of nomadic Arabs on the fringe of the Arabian desert. They stripped me of all I had, and after hours of riding through the night, bound hand and foot, they threw me in a dark, airless dungeon at some village we had come to.

"This, I thought, was journey's end for me. To die here like a dog in the dark. Hours passed, each like an eternity. Then the door opened, letting in daylight that nearly blinded me. A young man in the dress of a tribal chief severed my bonds. He took me by the arm, led me outside. There were my camels with my kit intact. He handed me my wallet and my papers, returned my revolver and ammunition. 'It is Christmas Day in your country,' he said in stilted, but understandable, English. 'Once I had great kindness there at this time.'

"Believe me there is something in this Christmas business. . . . I'm going out in this God-forsaken city to-night to see if I can deliver some wretched Christian from bondage!" . . .

## A Welsh Celebration

In the Welsh hill-country overlooking the Irish Sea they still hold a dawn or cock's crow Christmas service in the quaint old churches. In historic, picturesquely named Llanddewi Brefi, the simple folk of the Cardiganshire soil gather on this day at 4 a.m. and remain to worship and sing Welsh hymns until dawn breaks through the ancient church windows.

As I left the log-fire of the inn that adjoins the church, left the cheerful company with its song and story, I pondered the magic of this season. The heavens were black, inscrutable. No star shone. The church tower brooded over the graveyard which is so crowded with the dead that it seems one vast emptiness.

But the church was full. They had come from near and far. A veteran farmer had not missed the service once in sixty years. An old farm-labourer had walked three miles. Young people had hired motor-cars to bring them "home" from the towns countless miles away. Many came on horseback from the hills.

There were children there vividly awake at that hour when the spell of sleep is upon all young things. And the congregation was not all one of churchgoers. There were people there who never set foot in a place of worship during the rest of the year, men and women who knew disillusion, and may have become cynical because they had learnt too much about the world. I met men for whom early rising has long since lost any romantic appeal it may ever have held for them; men who are not stirred by the cock's crow except that it is another call to arduous toil. Hour after hour they stood, knelt, and sat in that cold church, but no one chafed, no one posed as a martyr. They sang in their rich Welsh voices with ecstasy, they recited the prayers with emotion that carried them beyond all toil and trial.

Shakespeare was right. This season has potent magic of its own. It charms away all evil spells, opens the flood-gates of humanity.

Had I the power I would infect the rest of the year with the spirit of this day. I would turn the League of Nations into a League of Christmas Notions. I would send greetings to Fritz, my old friend the enemy. I would stage a reunion of my Cairo "tough guy" with his Arab sheik. I would invite the world to a Welsh Christmas dawn service. . . .

But would I ask my tax collector to dinner? Well—yes! In the grip of this magic I believe I could do even that.

## THE SPIRIT OF PEACE

THE militarists talk of air attack,  
Of poison gas, of "adequate defence."  
Yet there is one protection that they lack  
And that essential—simple common sense.  
A world at war a world in ruin means:  
A common grave, wherein together lie  
Civilians, airmen, children, kings, and queens,  
And earth a slag-heap 'neath a sullen sky.

But we have yet a mightier power than these,  
The voice of friendship travelling round the  
world!

It cuts the knots of old antipathies,  
And sees the flags of war for ever furled.  
The Radio! A simple thing it seems,  
And yet it links the continents and lands  
In closer bonds than, in our rosiest dreams,  
We prayed might join in fellowship our hands.

It snaps the barriers of race and tongue;  
It brings to all men music's magic airs.  
The white, the coloured, be they old or young,  
Can find new hopes to banish old despairs.  
O Power, whose lightning breaks the armoury  
Of war, and brings new sympathies to birth,  
May Peace take hands with loving-kindliness  
As "Happy Christmas!" echoes round the  
earth!

N. M. G.

## THE STRONG COMET

(Continued from page 871)

ishly the controls of his apparatus. For hours he worked like a Trojan, but not a thing would come through.

A few weeks later, when the world had settled once more to its normal activity, Professor Strong touched on the subject of the experiments at one of his lectures.

"It is easy to see now what has happened, gentlemen, during the three momentous weeks of the comet running parallel to the orbit of the earth. When its fan-shaped tail shielded the sun, it cut off all the sun's radiations, which are the main source of ionisation of the upper reaches of our atmosphere. As soon as the source of ionisation was cut off, the Kennelly-Heaviside and the Appleton layers became dissipated and disappeared. This phenomenon, of course, affected the propagation of wireless waves as there was nothing to reflect back to earth the indirect ray. Communication at long distances became impossible.

"But this is not the only thing that the disappearance of the ionised layers has done. It also removed the ionised blanket around the earth which before the appearance of the comet prevented electro-magnetic waves from reaching us from outside, that is electro-magnetic waves of the order of 30,000 to, say, seven metres. This accounts for our being able to receive television signals from an extra-terrestrial source on 800 metres.

"Somewhere in the solar system, or maybe outside it, there is a planet where outsize ants have built a remarkable civilisation, which, at least from the scientific point of view, appears to be far in advance of ours.

"It looks as though on this planet, wherever it may be, the human race is far from being the dominant race, and is used by the ants just as we use white mice for our experiments. The comparative sizes in the televised pictures were extremely deceptive. If the ants are about our size, then the human race on that planet must be of exceedingly small stature. On the other hand, if the human figure were about our normal size, then the ants must be veritable giants, at least 30 to 36 ft. in height. . . ."

# CHRISTMAS STAMPS

POSTAGE stamps were originally evolved in order to provide a convenient means for the prepayment of charges for the transmission and delivery of postal packets. To Great Britain belongs the distinction of having introduced these handy little labels, and this happened as long ago as the year 1840. For over half a century they were universally issued with no other intent than the fulfilment of their ostensible purpose, until the closing decade of the century saw the birth of the "Commemorative" variety, and in 1897 the Australian states of New South Wales and Victoria created the "Charity" stamp. This is sold at a premium above its postal value, the buyer thereby making his contribution to the particular fund favoured by the occasion.

It is generally conceded that in these latter days the issue of special stamps is decidedly overdone by many countries, but we must feel more kindly disposed towards the Christmas series which are now an annual feature of a number of European states. Christmas is essentially a children's festival, and it is quite in keeping with the spirit of the season that the opportunity should be so provided for the support of the work of Child Welfare.

Most of the issues are only of stamps of the lower values, such as are in general use for card and letter correspondence. The charitable contribution is a modest addition to the face value, and they are extensively used to cover the transmission of seasonable greetings. For higher values, in those cases where such are also issued, the premium is proportionately higher, and may equal the postal value of the stamp. The issue of these values is usually limited, and they are mostly sold to dealers and collectors. The charities certainly benefit, and so do the Governments concerned, for few of these are postally used.



Switzerland:  
Pro Juventute

Switzerland issued the first Child Welfare stamp in 1913, and since 1915 the "Pro Juventute" issues of that country have provided some of the most attractive and colourful examples of philatelic art. Jolly studies of children, the arms of the cantons, mountain scenery, and quaint portraits of philanthropic worthies, combine to introduce a very cheerful note into our albums.

It was in 1922 that Germany first sought to help the aged poor as well as children by this means. At that period the country was in the first throes of the financial crisis, with the mark already on its downward way. The design on the stamps was an allegorical figure looking up to the Guiding Star. A later set depicted the good works of St. Elizabeth in her care of the poor and sick. Since then we have had series of picturesque German castles—exquisite examples of the engraver's art, and scenes from Wagner's operas have appealed to a public wider than merely those who collect stamps.

Holland had her first Christmas series in 1924, and among the fanciful variety of designs which have since appeared, children and flowers have provided the main themes. The 1929 issue showed a chubby little fellow astride a big fish. "Friendship and Security" was the title given to this phantasy, and it might almost be taken for an advertisement for somebody's cod-liver oil. The following year had its quite unique example in a very modernistic



Holland:  
Babe in the Manger

rendering of the scene of the Babe in the Manger. There are a few other examples of the use of Biblical subjects on stamps, but this stands alone as a representation of the Story of Christmas.

The contribution of the little Duchy of Luxembourg to the spirit of good-will is in the form of a miniature portrait gallery of the children of the Grand Duchess Charlotte and Prince Felix. The young heir, Prince Jean, was featured in 1926, and in the following years his sisters and brother were the appropriate subjects on behalf of less fortunate children. In six years the youngest member of the family was reached, and thereafter the commemoration of historical personages was employed.

Austria enriches the art by beautiful examples of printing, and has in various years produced series of national artists, poets, and musicians, besides views of the cities and countryside.

Even the small territory of the Saar has joined in the annual party, but it may be that this Christmas will mark the end of its individual participation in the good work. The necessity for a separate issue of stamps for so limited an area will in all probability have passed ere another Yuletide is with us. "The Widow's Mite" was one appropriate subject, and the spirit of St. Martin, who parted his long cloak to provide covering for the poor, has also been invoked.

## Belgian Designs

The Christmas stamps of Belgium are sold on behalf of the Anti-Tuberculosis Fund, and have provided an interesting variety of subjects. The three men in a boat on the 1927 issue do not appear to be having as amusing an experience as another party of that number better known to us. Allegorical designs have served for some issues, whilst a portrait of Queen Elisabeth, in the attire of a nurse, was exceedingly popular in 1931. Cathedrals, castles, and monuments have also been pictured, including that most remarkable and striking British memorial, the Menin Gate at Ypres.

Although not issued as Christmas charity stamps, mention must be made of the Czechoslovak series of 1929 to commemorate the millenary of the death of St. Wenceslas. To us at least the charitable works of the festive saint are recalled in the ever popular carol—"Good King Wenceslas." It is distressing to learn that his end was martyrdom, but the good that he did lived after him, to be an inspiration to many generations.

The present condition of international relations leaves much to be desired, but in the universal appeal of the Story of Bethlehem our hearts are in communion and our voices are in harmony in the chorus of "Peace on Earth, Good Will toward Men." And so we hope on.

H. R. C.

[We are grateful to the Editor of "The Stamp Magazine" for permission to reproduce stamps shown above.]



Luxembourg:  
Prince Jean



Belgium:  
Three men in a boat



IS WITHIN YOUR REACH

**EGYPT** offers you Sunshine and Health—now—during these dreary Winter months. Egypt's beauty is of both man's and nature's planning. Man made her temples and her tombs—Nature gave her glorious sunshine the whole day long and a delightful climate.

★  
**EGYPT** has something more to offer than her history—she has health for you. Long days of sunshine and invigorating desert air soon work wonders in regaining strength and fitness. Monuments of ancient grandeur—facilities for every sport—hotel life which is unsurpassed anywhere for splendour, comfort and variety.

★  
**EGYPT** the natural playground of Europe is now enjoying the golden rays of the sun. Kindly warmth and invigorating desert air combine to place Egypt at the forefront of all Winter health resorts. You can laze in lovely sunshine for hours on end each day, yet if you prefer the active life you will find your needs abundantly catered for.

★  
*Whether* you go to laze or play; whether you go to explore the marvels of an ancient civilization, or whether your visit is the means of regaining health and strength—Egypt has everything to offer you. The reasonable cost will come as a pleasant surprise to you.

\* Fully inclusive return tickets at reduced rates are available during JANUARY and FEBRUARY

Specimen Inclusive  
Tour  
35 days (11 days in  
Egypt) from  
**£59**  
London back to  
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Consult Steamship Companies, principal Tourist Agencies; or apply direct to

**EGYPT TRAVEL INFORMATION BUREAU (WAL),**  
29, Regent Street, London, S.W.1.

\* "WINTER IN EGYPT": Brochure with full details of Inclusive Tours and other informative literature, profusely illustrated, sent gratis and post free on application.

# The Benediction

DESPITE the fact that it was the middle of summer, a southerly storm was coming up. Already the southern sky was darkened with rapidly gathering clouds, and the freshening wind had an unmistakable feeling of rain. Fearing that he might be caught without his coat, old Sam hurried toward his whare. He was not making rapid progress, for he had long since seen the best years of his life; in fact he had been a shepherd on this Wairarapa sheep-station for ten, twenty, yes—nearly thirty years. He had seen it hewn from the bush; he had, indeed, helped and had cut and shaped from its timbers enough materials to build his own whare. Now he needed a stick to help him along, and his haste to reach shelter before the storm broke left him panting for breath.

Just before the door he paused, looked round, and whistled. "Here, boy!" he called, and an anxious pause followed. Round the side of the whare came trotting an old collie. The old shepherd leant down and patted the shaggy head, and together the two entered the rude shelter. They were part of one another's lives, these two, and both were growing old in the solitude of the back country. But Sam would not wish it otherwise, for he had grown to love the quietness and simplicity of the life. He had two great friends—his dog, Tim, and a radio set his employer had given him a year or so before.

Sam would have none of it at first, and it was hours before he could be persuaded even to touch the dials. However, curiosity eventually overcame his fear, and he cautiously advanced a timid hand. By a happy chance the first movement of the dials resulted in a burst of melody from the loudspeaker. After that Sam would not miss a minute when he was not out with the sheep.

His simple meal over, and his dog fed, the old shepherd settled down in front of the fire to enjoy the evening programme. ". . . Tomorrow night will be Christmas Eve, and we are presenting a special midnight church service. . ." Sam, with a guilty start, realised he had completely forgotten it was Christmas, and the thought of it revived haunting memories of the gay Christmases of his youth. Then he was young, happy, and surrounded by friends. He had no one now to wish him a merry Christmas—no one to care whether he lived or died, except Tim.

On the following afternoon grey clouds scudded overhead, driven by a strong wind. Occasional showers lashed the old shepherd's face as he knelt leaning over the bluff that rose steeply behind his whare. But Sam didn't notice the weather—didn't realise his clothes were sodden and his cap was gone. He was peering out of tear-dimmed eyes at a brown, huddled shape lying ominously still on a projecting ledge some fifty feet below. His face was working, and he was moaning piteously. His dog, his old companion and help-mate, lay down there crushed and broken. He couldn't believe it—it had happened so suddenly. Tim had been rushing along the cliff edge, intent on turning back a sheep that had left the flock. The rain-sodden brink had given way and the dog made one desperate jump for safety. Sam could see him now, half on his side, his four feet pawing madly against soil that wasn't there. The almost human wail that rose when he finally hurtled downward still rang in the old man's ears.

"Tim, Tim, old boy," he half-sobbed. There was a faint responding stir as a tail moved just slightly—just enough to kindle a wild hope.

Very cautiously, but without hesitation, Sam lowered himself over the cliff-edge, groping with his feet for holds. Infinitely slowly, and with an intense concentration on the rocky face before him, he worked his way toward the ledge where his dog lay. The exertion was almost too much for a man so old, but at last he reached it, shaking from the tremendous strain on his muscles and nerves. He crawled slowly along to the still form, and knelt beside it. His trembling hands moved over the shaggy coat, eagerly at first, but more slowly as no responsive tremor met his touch. He raised the limp head—there was just a movement of the eyes and a slight swish of the tail, then no more.

Tim was dead. His dog, his pal who had stuck to him, easing his labours, lessening his loneliness, had, after fifteen years of devoted service, left him.

Carefully, very carefully, his hands clutching the rock wall, Sam stood upright and looked

By A. EARL READ

over the brink. He shuddered, and at the movement sank back on the ledge, every nerve fluttering. Below him lay his whare. He looked again and felt dizzy and slightly sick. Curious, but he'd never noticed the shack's chimney was slanting so much. Perhaps it wasn't so noticeable from the ground. His mind was wandering, and with an effort he brought it back to his present terrible plight.

He was certain he couldn't climb up again, and now his dog's need was past, he wondered how he had ever been able to get down to the ledge. His eyes returned to the still, brown form at his side. No, he couldn't possibly take Tim. He'd have to leave him there.

He crept along to the end of his resting-place, and, after pausing a few seconds to steady his nerves, turned round and slowly lowered his body over the void. Gradually he worked his way lower. His muscles ached and his hands were cut and bleeding. Half-way down he rested awhile, panting heavily, and then cautiously lowered an exploring foot. He encountered nothing, and a dizzy nausea enveloped him, threatening to tear him from his hold to crash on the rocks beneath.

But the spasm passed, and with his hands clinging desperately to a niche, and his whole body pressed hard against the cliff face, he forced himself to look downward. About four feet below him, but a little to one side, lay a small ledge a few inches in width.

It was his one chance. He waited a few moments, and, with a coolness born of desperation, gradually lowered his body until he was crouching. His fingers sought eagerly for the crevice, found it, and clutched. His feet swung downward and to the side, groped, and touched the ledge. He'd done it, and in a rush of exhilaration unknowingly slackened his hold. It was his undoing. His fingers, grown careless, suddenly clutched in vain at crumbling, treacherous rock. . . .

It was dark, and the rain was still pouring down, beating cruelly on the unresponsive, crumpled body which lay at the foot of the black cliff walls. The old man had lain there over four hours, seemingly lifeless, but with just a flicker of life remaining within the pitiful, rain-sodden form. He moved feebly, and groaned with the pain that enveloped him as consciousness returned. He couldn't think

clearly, and his body was racked with an agony that threatened any moment to send him back into unconsciousness.

Very slowly, covering a few inches at a time and passing through a hell of pain at every movement, he crawled toward his shack. At last he reached it, and with a supreme effort raised his body high enough to fumble with the latch. The door swung back, and he half fell, half crawled into the hut. With his last ounce of strength he pushed the door shut and drew himself to his bunk, when again unconsciousness overtook him. . . .

It was approaching midnight. For hours he had lain there, motionless, and at last a long-drawn, shuddering sigh came from his lips. His eyelids flickered, and he once more became aware of the storm raging round his whare, which rattled and shook as though at any second it would be torn from its foundations. A groan sounded through the darkness. He was dying, he knew, and at the thought he became terribly frightened. To die like this, broken in body and with no one to be with him in his last moments, appalled him, and he moaned pitifully.

And then an inspiration forced its way into his clouded brain. The radio! With a rush he recalled the church service announcement he had heard the previous night. A trembling hand fumbled for the switch that would bring comfort and cheer in his dying moments.

Out of the darkness came the beautiful strains of the *Messiah*, the voices of the choir blending perfectly in the inspiring climax. The singing died away, and the organ swept the glorious harmony to a close.

In the rain-swept blackness outside a horse, bearing a crouching figure on its back, was stumbling and slipping along the path to old Sam's dwelling. The storm lashed furiously around rider and beast, as if indignant at their presumption in venturing from shelter on such a night. That morning a trapper had called at the station homestead, ten miles distant, and had been directed to Sam's shack as a place where he might spend the night on his way to the coast. Unfortunately, he had postponed his departure from the homestead until evening, and was now completely lost in the storm-swept darkness. It was useless for him to dismount to look for shelter. His only plan was to keep moving.

Slipping and sliding, the animal slowly climbed the rise, squelched through the mud on the flat for a few yards, and then stopped dead. His rider impatiently urged him on, gently at first and then with spurs, but after reluctantly moving a few paces the horse suddenly wheeled and went back. Sensing something amiss his rider dismounted stiffly, cursing the stubbornness of his mount. He stepped forward—and stumbled against a doorstep. Surprised, he fumbled for the latch, entered and then stood as if transfixed.

Out of the darkness came a voice, strong, yet strangely tender and comforting: ". . . May the blessing of God Almighty, the Father, Son, and Holy Ghost, be upon you and remain with you always." The voice stopped.

In bewilderment the stranger groped forward, one hand digging deep into an inner pocket of his oilskins. A light flared. His eyes fell on the still figure on the bunk, and a low exclamation escaped his lips. The match flickered and went out. Outside, the storm still roared, but on old Sam's face, a few minutes before so twisted with pain, was a look of ineffable peace.

He, too, had heard.

# The Return of Cæsar

By A. J. PETCH

THE Old Year had but two hours to live. Soon Big Ben, far-famed herald of the march of time, would boom out a benediction and a welcome, and his mellow voice would carry marvellously to the confines of the earth—to cities and hamlets, to the jungles, and the ice-bound wastes. But now, on this last ebb-tide of the Old Year, magic other than man's conquest of the ether was about to happen—and that under the very clock-face of Big Ben, shining so yellow in the murky drizzle.

From the direction of Blackfriars a strange figure came striding along the Embankment. Wrapped in a shapeless drugget cloak, head bared to the chill rain, and lean feet shod in sandals, he was sufficiently bizarre to arrest the bovine scrutiny of a policeman browsing in oil-skin cape by Cleopatra's Needle. But there were few others along the windy riverside to speculate upon the stranger's appearance and probable mission on that bleak night. So he strode on, with a peculiar, swift, and elastic gait, gazing anon with curious interest at the traffic which sped along the wet and glittering asphalt and at the river on his left. The latter was his chief delight, for the tide was full and the rippling waters of the ancient stream ran little lower than the Embankment pavement. On the Surrey side the lights along the terrace of the London County Council building made a brave display. But on this cheerless night not even the blunt nose of a tug clove the river's surface.

Nearing Westminster Bridge he slowed his pace, as if approaching the terminus of his journey. Before him arose the dark mass of statuary which represents Boadicea, Queen of the Iceni, petrified in the act of hurling her chariot, her daughters, and herself at the sleeping Mother of Parliaments. The stranger halted some twenty paces from it and stood gazing and waiting. Suddenly the roar of London slackened and stilled. With a receding whine a tram lumbered across the bridge. Then—miraculously—there was silence.

The stranger moved briskly up to the monument and stood before it. For a moment or two he gazed at the robust image of the Queen; then, in distinct and pedantic English, he spoke:—

"Greetings, Queen of the Iceni, from one who has long desired speech with you. There stands before you the first Cæsar, whom the gods have miraculously granted life and freedom for a brief space. Step down from your chariot and walk with me, for I have much to say to you."

At his first words the figure of the Queen turned to look down upon the speaker. In her eyes was anger and scorn, and proudly she answered: "If you be that Cæsar—as I now see you are from your image on a coin I once possessed—who first brought the legions of Rome to this isle, and with them brutality and unhappiness, I have nothing to say to you!"

Cæsar's voice took on a coaxing tone as he spoke once more. "Now touching the matter of your harsh treatment at Roman hands you cannot rightly bear me ill will for that. Suetonius was pro-consul of Britain at the time, and Nero was Cæsar. You cannot fairly hold me responsible for that which occurs a century after my death. Dismiss the matter from your mind and let us walk together and see the sights of this great city!"

So Boadicea, Queen of the Iceni, gave the reins of her fiery steeds to one of her daughters and gingerly stepped down from her chariot; but she was a tall, buxom matron, and would

perhaps have fallen if Julius Cæsar had not steadied her with a lean and muscular arm.

Now the two stood together on the wet pavement before the newly-vacated chariot and the Queen shivered a little as she drew her flowing garment more closely about her form. "I am ill-dressed for such a venture, Cæsar," she said, "and I am apprehensive not only of the cold but also of the curiosity of these modern country-women of mine, who change so swiftly from one manner of dress to another."

"We may perhaps excite some interest," replied Cæsar, taking her arm and conducting her across the street to the Scotland Yard side, "but as to that I am in like stead myself."

And now that the roar of London had of a sudden gathered itself together into full cry again the strange pair did certainly arouse some degree of curiosity amongst the passers-by, as they walked along towards Whitehall. The Queen was considerably taller than her companion, and very powerfully built for a woman. Down her back, reaching almost to her knees, fell her magnificent red-gold hair, and with her high colour and imperious-blue eyes she was not one whom one might pass without a second glance. However, this was New Year's Eve, when many strange people are abroad in peculiar disguise, and so they were not unduly molested by the curiosity of those who saw them go.

They crossed Whitehall and continued walking in the direction of Trafalgar Square, talking the while in animated fashion.

"This is a strange thing, Julius," said the Queen—now rid of any rankling ill-humour she may have entertained towards her companion, "that we two of all people should pace the streets of this great city together. How did you become free to seek me out?"

"That I may not answer you, Queen, for fear of betraying the confidence of the gods; but this I may tell you—that for many years I have stood as you see me now in a museum not far from here, where I have absorbed a knowledge of this language from those who came to gaze at me. From them I have also learned something of the marvels which have come to pass during the centuries since my day. And you, too, have no doubt seen and heard many strange things from your place by the river?"

Boadicea laughed. "Indeed I have, Julius! I could not have been situated to better advantage had I chosen the place myself. What with the highway of the river, the busy traffic, the talk of tourists, and the somnolent murmur which can be heard arising from the Seat of Government, my daughters and I have kept ourselves constantly amused."

The two crossed Trafalgar Square, made their way up Cockspur Street to Haymarket, and came to Piccadilly Circus. There they stood for a while, spell-bound, gazing with keen delight at the kaleidoscopic scene—above which winked and beamed the many-coloured lights of expensive publicity. But as they stood there they were continuously jostled by the surging, impatient crowds, so that finally Cæsar turned to his companion and proposed a hostelry.

Seeing a break in the stream of traffic, he guided her across to where the luminous sign of a restaurant spoke of warmth and hospitality. Not a little nervous, they entered the place.

Once within the brilliantly-lighted foyer, a suave person approached them, skilfully concealing his surprise at their unusual appearance. To him Cæsar confided their desire for food, drink, and privacy. The suave person smilingly bowed and preceded them up a stairway carpeted in crimson. Then, selecting a door on



the first landing, he ushered them into a richly-furnished apartment, explaining that by good luck the room was not to be used by those who had reserved it for the evening. Then he discreetly excused himself to go about their requirements.

The Queen and Cæsar stood by the cheerful fireside, thawing appreciably as they gazed at the comfort of the room and at the inviting display of napery and silver on the table.

"Ah, Queen," said Cæsar, "you and I will be the better for a little food and wine before we return to our appointed places."

Boadicea smilingly agreed, whilst busy about her hair before the gilt-framed mirror above the mantelpiece. Looking at her with admiration, Cæsar said: "You are a superbly handsome woman, Queen—fit to be the monarch of such a nation as this. Who knows but that matters may have had a different end had I been in the place of Suetonius!"

She gazed at him with merry eyes and a blush heightened the fresh colour of her face. "Strange words from such a one as you, Cæsar, for whom I have heard that women had little interest. Indeed I am content to have been a queen of this people, though in my day we held little promise for the fulfilment of that prophecy which a certain bard uttered and which has no doubt come to your ears."

"I know of what you speak," replied Cæsar, with some acerbity, "but let us not discuss anything which may mar our friendship this short while. Here comes the servitor—let us enjoy the banquet he brings us."

So the two sat down together and dined with great zest and enjoyment, conversing amiably and with much merriment as the good food and wine warmed their innermost beings. Cæsar compared the wine to his own good Falernian, and the dishes to the Lucullan delicacies of his own table; whilst the Queen on her part spoke of mead and ale and roast boar's head and other British favourites.

All too soon the excellent dinner came to an end, and then Cæsar ascertained to his dismay that the time lacked but twenty minutes till midnight. He immediately sent for the suave person who had received them so graciously, and when the latter came, Cæsar gave him one of the heavy gold medals from his ornamental breastplate, asking if the thing might pay for the banquet and the serving of it. The suave person was evidently not one whom one might easily surprise; he carefully examined the medal, and replied that it would amply cover their reckoning. So the Queen and Cæsar passed out of the place, magnificently escorted by a little procession of bowing waiters, marshalled and led by the suave person himself.

Outside the restaurant they were ushered into a waiting taxi, and upon the driver's

(Continued at foot of col. 3, page 877)

# A Christmas Tour



A holiday-maker in Switzerland

CHRISTMAS afternoon. Wireless stations all over the world are filling the ether with music, song, and Christmas wishes. We, in a cottage in the Home Counties, gather cosily round a bright log fire. Happily replete with turkey and plum pudding, we await the B.B.C.'s Christmas broadcast.

The link just now with other countries broadcasting Christmas fare is very strong. We would catch a glimpse of how they are celebrating the great festival. To get any real idea of how they do it in Germany, for instance, we must slip back to Christmas Eve.

It is five o'clock in the house of Herr Schmidt in a suburb of Berlin. The family have just finished a huge tea of *baumkuchen*—the iced cake which looks like a tree-trunk—*hönigkuchen*, and marzipan. Herr and Frau Schmidt have risen from the table and entered The Room, which has been kept locked since the arrival of the Christmas-tree two or three days ago. They light the tree whilst the little Schmidts, the guests, and servants form an excited procession in the hall.

"Fröhliche Weihnachten!" cries Papa Schmidt as the procession, wriggling with joy, enters; it ranges itself round the tree, so liberally decorated and lighted, and sings a Christmas carol. Then everyone disperses to his or her "place," a table or chair, with the owner's name pinned above it, on which are piled the presents. For the children, at all events, this is the best moment in the whole year. The Room is the scene of all the family's activities on Christmas Day and for several days afterwards, for the presents will probably remain in their places till New Year's Eve when the tree is lighted for the last time.

## Among the Swiss Mountains

The Swiss must surely feel that they live in the very heart of Christmas. Nearly every tree on their mountain-sides is a Christmas-tree, decked in purest white. The candles are the rays of the sun which, shining from a cloudless sky, touch the soft heaps of snow till they glitter in a thousand sparkling points.

Daybreak in the mountains is greeted with the

tinkling bells of all the little churches. The music rises from valley to mountain top, and German churches, French churches, and, in the larger winter sport centres, English churches, are filled to capacity. No "Sunday clothes" here. The congregations, leaving skis or luges in the porch, clatter in in sporting kit.

Later in the morning radio-gramophones play dance music on the ice-rinks; curlers fetch out their stones and brooms, whilst skiers of all nationalities race each other down the slopes. A fancy dress dance is the evening's entertainment in every hotel.

But we must leave them and see how they are spending Christmas in Italy.

## Roman Holiday

Rome is crowded with visitors, and sight-seeing is the popular pastime. All day long the great Basilica of St. Peter's is thronged with bands of pilgrims worshipping at the tomb of St. Peter, gazing with reverent awe upon the bronze statue of the saint, the toe of which has been kissed white by the lips of unnumbered pilgrims. Many make the pilgrimage to the Scala Sante—supposed to be the steps that Christ descended on His way from the Judgment Hall of Pilate. These steps may be mounted only on the knees. The chapel at the top is said to be the most sacred spot in the world, for beneath the altar are preserved the holiest relics. No woman may enter this chapel.

Others wander in the Forum, bathed now in bright sunshine. The ruined monuments live again for them, and the site of Julius Cæsar's burial seems much more than a rough pile of stones. From there they walk, through streets cheerfully noisy with the blare of motor-horns, to the Colosseum, or perhaps drive out to the Catacombs, those sixteen miles of subterranean passages lined tier upon tier with the tombs of the early Christians.

There is much more to see, but we must on—to Egypt.

Christmas on the banks of the Nile breathes romance, and Luxor is the centre of the festivities for Europeans and Egyptians alike.

You start your Christmas Day with a donkey or camel ride through fields of bean, onion, lupin, maize, and barley crops where the *sakieh* or water wheel, which is worked by a blindfold bullock or camel, groans an accompaniment to the song of the men working the *shadoof*—another method of drawing water to irrigate the land. Your fast little donkey rushes you through villages of mud houses each crowned with an untidy pile of dry bean and cotton stalk, fuel for the inhabitant's fires.

Later in the day you drive up the long, stony track into the mysterious hills where lie the



"From there they walk . . . to the Colosseum"

Tombs of the Kings. Some of you may visit the valley of the Tombs of the Queens and of the Nobles, for these tombs are, in most cases, better preserved.

You spend Christmas afternoon lying in long chairs under feathery palm trees in the hotel garden, lazily watching the gardeners playing their hose-pipes on grass and luxuriant foliage, which constant watering has produced in this desert region. The hour before dinner finds you on the hotel balcony overlooking the brown waters of the Nile, where a white-sailed felucca swims slowly with outspread sail, like a giant bird. The dust of the road beneath the balcony is stirred by countless feet; the feet of little herds of goats, of bustling donkeys, camels, and horses, of the water carriers and dragomans; by the naked feet of hurrying black-robed women, their cloaks drawn close to hide their faces.

Then comes the Christmas dinner and dance with music provided by a London band. And, perhaps, very late, a drive out to Karnak, to wander in the cold moonlight through the vast ruins.

## The Indian Scene

How are Europeans in India keeping Christmas? The answer comes:—It is the cold season here in the South; and yet how hot it is! As we lustily sing Christmas hymns in the garrison church we are thankful for the draught which the opening of all doors and windows induces.

The morning passes in a round of visits and much feasting on Christmas cake "sent us from home." On reaching our own bungalow a cry of: "Boy, dinner, please," brings the turkey whisking on to the table. Plum pudding and brandy sauce follow.

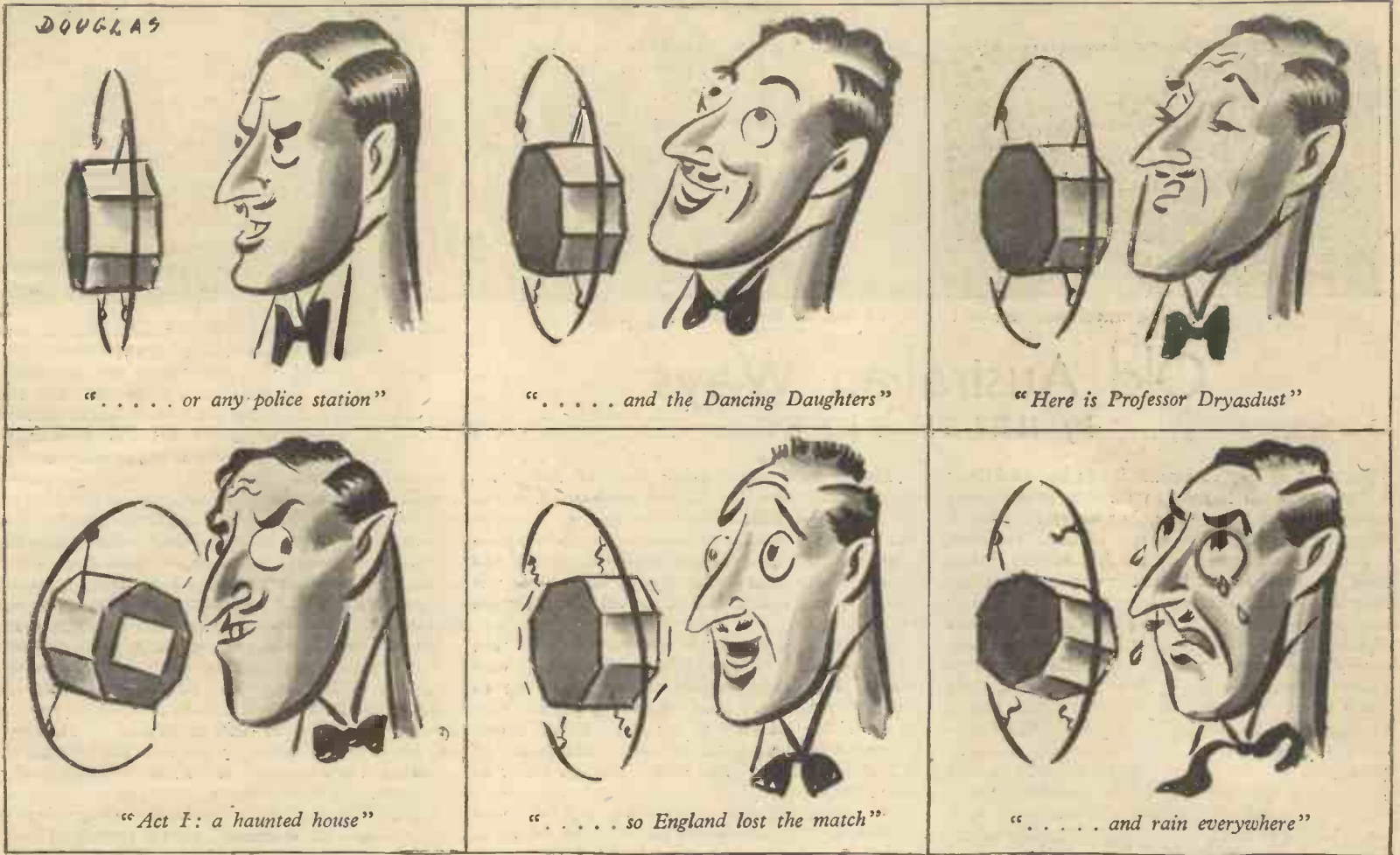
Hardly is the meal finished, than the first of the stream of Christmas visitors arrives. Hindu, Mohammedan, it does not matter what his religion, if he has a shop in the town, if you ever have, or are ever likely to, employ him in any way, he comes with garlands and presents "For the sahib; for the memsahib; for the missibaba." Presents of cake and fruit, even bottles of whisky. These, however, are politely refused, since their acceptance is taken as a promise of future patronage. Your guests depart, salaaming their way out and murmuring: "Happy Chreestmus." After tea the Christmas-tree is lighted. The mali, knowing nothing of Christmas-trees, has done his best with a pot and a few spiky leaves, and candles, and coloured balls help to create the right atmosphere. The native boys and their children come and stare at it open-mouthed and open-eyed. Only the mothers are absent. Betty and Peter fill the children's hands with sweets, annas, and oranges. Then ayah carries Betty and Peter off to bed. They sink to sleep under their mosquito nets, hugging the teddy bears which have travelled to them all the way from England.

We walk across the maidan to the mess to eat our second Christmas dinner that day. "Ladies and Gentlemen: The King—Emperor." Who can fail to thrill to that toast?

The evening passes in childish games and singing. The lusty roaring of Christmas carols drowns the cheeping of the tree-rats in the veranda roof and rouses the dogs in the cantonment, and the hunting jackal to a restless howling.

C. F.

+ + THE ANNOUNCER WHO FELT THINGS TOO DEEPLY + +



They Shall Have Music . . .

THE RETURN OF CÆSAR

(Continued from page 875)

Has it never struck you that the Christmas host is far more attentive to the early morning comfort of his guests than he used to be before he owned a wireless set?

A few years ago Boxing Day was an occasion for gritting your teeth and showing your powers of endurance. "If I only stay in bed a little longer," you felt, "somebody else will probably get up and distribute cups of tea to the numerous Christmas guests who, in improvised beds, are scattered about the house!" And the host, not having to endure the misery of an improvised bed, was rarely the loser in this endurance contest.

But nowadays it is almost a disaster to be forestalled by one of your guests in this morning service. For the early hours of Boxing Day provide the wireless owner with the sort of opportunity of which he often dreams, but rarely obtains. At his mercy there lies a houseful of people. Unhindered by their irritating desire to listen to the sorts of programmes that they enjoy hearing, he can make them endure sounds that at any other time they would not tolerate for two minutes.

"Endure" is, of course, a word which he himself would not apply to the treat which he hopes to give them. The radio or gramophone owner who inflicts unwelcome sounds on listeners always has a firm belief that, if these people could only be induced to stop chattering and to give their whole attention to his programme, their tastes would undergo a sudden radical change, and they would realise how mistaken they had been in the past in boycotting that sort of thing.

But, at normal times, people will rarely stop chattering. And, when occasionally they do, it is only because the sounds from the

loudspeaker have so seriously interfered with their conversation that they feel that something must be done about it. "I say, old man, there's usually a jolly good programme from Radio-Somewhere-or-Other at about this time!" they murmur, as they stroll across the room to take the control of the knobs politely but firmly out of their host's hands.

On Boxing Morning, however, this sort of disaster is unlikely to happen. Very few people have the audacity to stroll about in another man's house in their pyjamas, even when they want to interfere with his wireless set. Feminine interference has lost its sting, too. With your wife upstairs and you downstairs, her "Don't you think you'd better turn it down a bit, John?" will, probably be unheard.

If none of the early morning radio programmes appeals to you, you can use the pick-up to play those favourite records, which everyone, you know, would appreciate if people only would have the sense to listen to them properly. Having with great care left all the bedroom doors carelessly ajar after delivering the cups of tea, you have blissful thoughts of a houseful of happy folk, enraptured by the musical treat that you are giving them. "The man certainly has a fine taste in music!" must be the thought that is running through their heads, you feel.

Thus, radio has given a new Christmas pleasure to us all. If the other people are sleeping at your house, you have the joy of demonstrating your wireless set to an ideal audience; and, if you are sleeping at somebody else's house, you are certain of the luxury of a morning cup of tea—and you can usually escape from most of the unpleasant noises which follow if you entwine the bedclothes round your head skilfully enough!

R. A. S.

question, "Where for, sir?" Cæsar directed him to the Houses of Parliament.

Both the Queen and Cæsar enjoyed to the full that swift journey through the shimmering streets, although they were also conscious of the misery of impending parting. At the corner of Bridge Street the taxi stopped. Cæsar produced another medal from his breast-plate, and such was the force of his personality that the driver took it without a murmur.

Now the luminous face of Big Ben showed the time to be two minutes to the midnight hour. As the two crossed to the chariot there fell again that awesome stillness upon the metropolis. It was as if Time suspended his breathing for the space of several heart-beats. Cæsar helped the Queen into her chariot, and as she was settling into her appointed attitude, he spoke:

"Farewell, Queen! Our time is up. But have patience—I shall come again, perhaps, to . . ." The first mellow note from Big Ben broke in upon his words, and with it the roar of London rose to a crashing symphony of sound. There came the discordant yapping of a multitude of klaxons, and a tug hooted dismally from the river. But above all these sounds the voice of the famous clock spoke insistently—carrying the message of Time's death and birth to the ends of the earth.

And here it must be recorded that not even the ablest brains of Scotland Yard could have found any connexion between the disappearance of certain ornamentations on the statue of Julius Cæsar in the Holfern Collection and the two golden medals which eventually found their way into the crucibles of Hatton Garden bullion merchants.



A Government camel caravan crossing the desert in South Australia

## Old Australian Ways

By HELEN HENEY

FANCY eating Christmas dinner in the middle of a heat wave in August, with the temperature going up, and appetites going down! That is what the Australians do as part of their tradition.

English people jokingly ask Australians if they walk on their heads at home—in that respect they do, for the seasons are all round the other way, and Easter comes in the autumn, Christmas at midsummer. December in Australia is hot, too—days of burning sun, when the glare is so great that it hurts the eyes to open them, days when a coppery haze shuts out the light, but not the heat; birds shouting before dawn, to welcome another blazing day, and locusts at night to remind us that there will be another twelve hours' roast to-morrow. In the midst of all this, the shop windows suddenly come out with artificial holly and artificial snow, Christmas cards and presents; and tired and harassed housewives, in the rush of packing for the seaside, have to make cakes and puddings just as their English mothers and grandmothers did with the frost crackling on the evergreens and big fires roaring up the chimneys.

Christmas dinner is often eaten in bathing costume, with the surf roaring on the beach, the meal served on the veranda, and ice cream as an alternative pudding. But, as I remember it, it didn't seriously affect the appetite!

Such queerness might well lead people to ask what sort of a country is this, where the simplest things are upside down. Let us take a look, then, at Australia, through her roads; in print it will be an easier journey than in fact, but it may give some idea of the island-continent, where what is impossible elsewhere is the general rule.

First, there are the historical roads of the east, which, built while New South Wales was still a convict settlement, and Victoria, Queensland, and South Australia small colonies struggling for existence, linked the series of jails and inns which held the country. The varied life that flowed over them covers the history of the fifth continent.

### The Great Southern Road

Such a one is the Great Southern Road, built painfully by chained hands, by the labour of backs raw from the whip, so that manacled feet could straddle slowly down it with the special walk of the "lag" which marked the ex-convict from among other men his whole life. Along this highway flowed most of the life of the young colony, both good and bad. Along it went the soldiers, the indent men, the loose women and dishonest men who lived on them, and the carriages and horses which carried the privileged few from one to another of those fine stone houses with their wide porches and flagged verandas, their gardens and stables and ball-rooms, which set the Australian tradition of unstinted hospitality.

Those were the stirring days of the bush-ranger, who was the English highwayman, but grimmer and with little of his grace. He was the natural outcome of the cruel system which branded men and flogged them to death. In case of escape murder was lightly considered; it might mean safety and it could not increase punishment.

So bands of desperate men formed, to raid and loot and kill, masked, mounted, and well armed, with their confederates everywhere to give them news of gold convoys going through to the mint. A rush of hooves, a shout, shots, a glimpse of hats pulled low, and "Starlight" of "The Thunderer" had added another crime to his record.

So much for the grim past, but there is another phase, hardly less picturesque, which is giving way to aeroplanes and Ford cars—the age of the bullock cart, the era of leisure. There are many old people living now who remember trips of weeks in bullock carts, their household goods and children packed with them to start a new life out beyond the reach of civilisation, or journeys back after years in the wilds to establish contacts with a changing world. For this is one of the peculiarities of Australia—the short time into which her history is packed, and the speed at which life changes. The tales of our fathers are already things to wonder at, and those of our grandfathers are legendary.

### The Wayfarers

Another characteristic feature of the Australian road is the flock of sheep or cattle with its drover. Where great distances must be covered on foot, the station owner entrusts his animals to one or two men who set out on horseback with a pack-horse and dogs, and three or four months later arrive with the herd entire at the nearest railway station, perhaps a distance of hundreds of miles, put their flock in the train, pocket the cheque, and go off to repeat the process. It is a task calling for considerable judgment, as the weather is always uncertain, and the animals must feed as they go, keep within reasonable distance of water, and yet not injure the properties they pass through.

There are roads of the north, through tropical forest, past lakes of blue water lilies and over rivers set with mango swamps where the crocodiles wait for unwary travellers; roads for tourist traffic, where cars flash up hairpin bends and dizzy hills. There are places where the olive green "bush" divides, with breath-taking views of sheer drops where rivers, falling, are broken into wedding veils of spray; roads through the exquisite fruit-growing districts, through mists of spring blossom, or through orchards of orange and lemon which spread like the spokes of a wheel round squat bungalows overgrown with crudely bright

creepers such as Europe cultivates laboriously in greenhouses.

The wayfarers are as varied as the roads they use and the reasons for which they travel; some could be met with any-

where, but most of them have a distinctive stamp on them. Here are two or three bare-legged, sunburnt children, who would be blonde in England, but under a stronger sun have their hair bleached to dull grey-brown and their skins the colour of tobacco. They ride, possibly bareback, on a sturdy pony, and think nothing of going eight or nine miles to school. There is a shearer, who seems nothing but a shabby workman with a pack on his shoulders, but a skilled worker able to command a pound a day wages and his keep at least. A clergyman in a battered Ford scuttles by on the work of a parish as large as an English county; or an occasional black tracker with the keen scent and sight of an animal which makes him the only thing between an unwary "new chum" and the tragedy of being lost in the bush—an experience so awful in its monotony that a few days of it can send a normal man mad. Then a drove of calves being brought to market, a group of riders, or a travelling library—one meets them all.

But the best, the strangest, figure is the "tramp." He is something special, something to look for—the man who has decided never to work, and who avoids it at the cost of pains enough to make him rich in most professions. He and his fellows are recruited from all classes, and many countries, with the majority "remittance men." Often they are cultured, sometimes they are oddities, nearly always they are philosophers; a Bible and a Shakespeare among the bags and cans wrapped in a rug that makes their distinctive sign or "swag," a lean dog at their heels, the genial Australian climate enveloping them and a wide sky above, they journey, their lives through, from place to place, never completely at ease under a roof, availing themselves of the traditional hospitality of the country which makes it almost a crime to refuse a stranger such food as may be going, though with the right to demand payment in work. They chop the wood or bring the water grudgingly, and, when a permanent job is offered, edge away with a mutter of "looking for something over South Australia way" and escape back to the life they have chosen, to its usual end—death by drowning in some flooded river, or of thirst and the madness its agonies lead to in the desert, but never back to that civilisation for which they found no use.

Australian highways! Who once has travelled them will carry a memory of them back for ever: the sight of a gum tree, or the scent of eucalyptus, the scent of dust in the sun, and sweat on leather saddles, the glimmer of a mirage. Those who return from that far country will learn a little of the nostalgia for the open spaces that recalling them here on paper brings back to the writer of this article, and for some of them it will be strong enough to take them back to "Old Australian Ways."



# Ten Years Ago

A Continental Reminiscence

(From our Berlin Correspondent)

A DECADE or more ago, in spite of a strict *Verbote*, a small band of hardy amateurs regularly listened to the Königs Wusterhausen Sunday concerts arranged by the Post Office engineer there, Herr Schwartzkopf. These people were the first German listeners, but it took five years for War-time restrictions and regulations to be so altered as to permit of the opening of a German broadcasting station. On October 29, 1923, a company called the Berlin Funkstunde began transmissions. Its daily programmes were limited to one hour. The transmitter itself was situated on the roof of the offices of a well-known German gramophone company, the equipment being installed by the engineers of the German Post Office, who had had to assemble it entirely from existing material, as the Post Office did not, at the time, provide credits for the work.

From the listeners' point of view, broadcasting in Germany was an extremely expensive affair. The licence cost RM.60 per annum; these Marks were of the new Goldmark variety, and were very precious indeed. Receiving sets had to bear the stamp "RTV," meaning *Reichstelegraphen-verwaltung*, and the waveband was limited. The coils had to be so fixed that they could not be removed or interchanged.

Home constructors were sadly hampered. They had to obtain a special licence—an *Audion-Versucherlaubnis*—without which they were not permitted to build their own apparatus. This could be obtained only after entering a radio club, and after passing an examination

arranged by the local telegraph department of the Post Office. Ohm's law was one of the fundamental principles which candidates had to know, and great stress was laid upon such knowledge as would render impossible unintentional oscillation.

Nevertheless German broadcasting flourished. During 1924 a number of stations were erected, each governed by an independent company.



An early broadcast in a Königs Wusterhausen studio

Few people realised that it was only in 1925, with the organisation of the Reichs-Rundfunk-Gesellschaft, that the German Post Office actually issued concessions to the broadcasting stations.

The licence fee of RM.60 was reduced to RM.2 per month in 1924, and has remained so ever since.

At that time, as I discovered, the question of whether a foreigner, and at that one belonging to a former enemy country, could obtain a licence to build his own wireless set, caused the authorities gravely to deliberate. But the question

of reciprocity arose, and as undoubtedly a German residing in Britain could buy a licence and build as many sets as he wished, British persons living in Germany were granted permission to pay their annual RM. 24, and after passing the examination, to build sets of their own.

The actual position of broadcasting in Germany ten years ago is best shown by words which I take from an article written by the former Secretary of State, Dr. Hans Bredow, and published in the Berlin official paper on the day of the first anniversary of the Berlin Funkstunde transmitter. He says that one year ago—that is, on October 29, 1923—he had opened Germany's first broadcasting station and had handed it over to the Berlin Funkstunde for the dissemination of "instructing and entertaining news."

"It had to be proved to the public that broadcasting was not an experimental toy, but an earnest instrument for the dissemination of spiritual values. It was necessary to overcome distrust and to prove to the critic the efficacy of the German radio organisation."

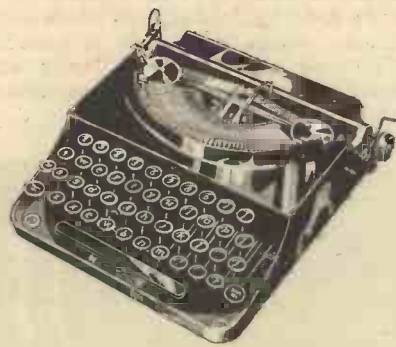
Dr. Bredow then writes that it had been possible to make the programmes more interesting, and that whole concerts and operas had been broadcast. On January 1, 1924, listeners numbered 1,500, on April 1, 8,000, and at the end of October, 350,000. In Berlin alone the number of listeners totalled 120,000 at the end of the first year. Bredow says that this development was unique in the whole of Europe, as London, with its very much wealthier public, had only 75,000 listeners after the first year.

The author did not recollect, however, that broadcasting in Great Britain began one year before it did in Germany; which had already been prepared for broadcasting by news of its success in Britain.

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# Christmas in the Balkans

IN the Balkan and adjacent countries Christmas and New Year celebrations are marked by a number of quaint customs. These show a queer blending of pagan and Christian associations. The origin of some of the rites has been traced to the twilight ages when gods and goddesses were believed to rule the destinies of the little race of men.

A striking similarity exists between many of the observances in Romania and Bulgaria, and to a smaller degree, in Greece. This is due, no doubt, to the common pagan yoke under which these history-steeped lands suffered for dark centuries, as well as to certain allied interests between the races. With the rapid spread of Western ideas and culture there is an ever-increasing tendency for these charming national customs to be relinquished.

Christmas Day has barely dawned before the stillness of the deserted Calea Victoriei and other usually animated boulevards of modern Bucharest is broken by the traditional ringing of bells from hundreds of cathedrals and churches, stately and quaint, heralding the birth of the Holy Child. In Sofia, the Rue Osvoboditel, the most popular evening "promenade" avenue, looks strangely desolate, but here again bells ring out.

In central streets of Athens, the Place de la Constitution and the Boulevard Omonia, instead of the usual echo of cosmopolitan feet, the bells send out their messages. And in Pera and Galata, the European quarter of Istanbul that stands sentinel over the Bosphorus, the Sea of Marmora, and the Golden Horn, the bells of the Christian churches peal out.

## In Children's Stockings

Our English Christmas tree is not uncommon in many Balkan homes, and, like Westerners, the children delight in their presents. Most Romanian and Bulgarian children find gifts in their stockings, as not even the severe frost and snow has debarred Mosh Craichun, or Uncle Christmas, from making his rounds. Even the bad children find their stockings filled—not with toys, sweets, and other good things, but with cornmeal (as popular here as castor oil is with English children), and convenient bundles of switches for vexed parents! Mosh Craichun has a sense of humour, though probably the victims do not appreciate it.

The spirit of Dickens is not absent at the tempting Eastern European festive board, and there is turkey, pork, and poultry—but no plum pudding! But Balkan youthful revellers are not dismayed. Their compensation is the New Year cake and apple tart paste, rolled to wafer-like thinness and arranged in numerous layers containing tiny rolls of paper. These slips are inscribed with prognostics in rhymed form for the New Year (at many parties they are composed by the guests), and cause as much merriment and excitement as our Christmas crackers. The postman, too, is as heavily laden as his London brother, and letter bags are crammed with La Multiani or Happy New Year cards.

From the Bucharest broadcasting station and the little amateur Rodno Radio station at Sofia cathedral services are relayed, and carols, both sung in the studio and in recorded form, are broadcast.

"Stars of Bethlehem" are carried from Christmas Eve until Epiphany by youthful carol singers through the towns and villages in Romania, Bulgaria, and parts of Greece.

Mumming plays, in which Biblical figures find representation, are produced in the larger centres. Other fascinating Balkan Yuletide customs still extant are those associated with

the fertility and success of the new harvests—which largely constitute the life blood of these essentially agricultural countries.

Paper flowers, also symbolic of fertility, are distributed in other districts by laughing boys. Sometimes the men and boys carry buhaiu "musical" instruments—a tightly-stretched skin or drum with horse hairs, which, when drawn, produce a cacophony designed to represent the majestic roaring of a bullock. A truly pagan touch is provided by "bogey dancers" in Romania and Bulgaria, who dress themselves in the skins of animals, or wear goats' and bulls' heads and long beaks, and perform rather weird antics.

## The Romanian "Hobby-Horse"

A pleasing Romanian ceremony (which the introduction of "Westernisation" is killing) is the hobby-horse dance. The Balkan performers, who constituted a kind of magical fraternity, were wont to meet in full regalia at cross-roads and boundaries, the leader being encased in a framework incorporating the head of a wooden horse. After preliminary incantations and mystical dances—rivalling the best efforts of Pacific Island "devil dancers" and "witch doctors"—the troupes would repair to the towns where their exhibitions were among the *pièces de résistance* of the celebrations.

A ceremony of outstanding interest in all the Balkan lands and also in western and southern

Russia is that of "The Blessing of the Waters" on St. John the Baptist's Day. In Romania this rite—known there as the "Boboteaza"—takes place on January 6, but the date varies slightly in the other countries. The Romanian and Bulgarian ceremonies are held in the River Danube, the natural frontier, and in the Black Sea, which also provides one of the venues for Russia and Turkey. The Greek observance is in the Ægean Sea, but the actual rite is conducted on largely similar lines in all the countries.

## An Icy Plunge

After an impressive benediction service by the river or sea, the archbishop or priest throws a wooden cross into the icy waters, and men, fully-clothed, plunge in to retrieve the sacred symbol. The successful man reaps a rich material harvest in the practical form of donations given by all to whom the cross is exhibited, and, according to belief, a spiritual harvest by the blessings attendant on the rescuer of the symbol.

In Turkey, of course, there is no national celebration among the Faithful of the Prophet corresponding in any degree to our Western creeds, and festive periods in the lands of Islam are those following fasts, such as Ramadan, the interval between new moons. In spite of Kipling's dictum, however, the Occident and the Orient have definitely merged, and, imitating the European population in Istanbul and Smyrna, the Western-minded Turkish families invariably have Christmas trees.

C. W. L.

# ... in Provence ...

You may have travelled in all parts of the world, you may have spent Christmas in the most out-of-the-way places and under the strangest conditions, but there is always one Christmas which remains unforgettable. Christmas in Provence, in the beautiful South of France!

In this part of the world Christmas is not looked upon as a festival, in the same way as the town-dweller does. Here it has retained all its inherent sacredness. For the Provençal it is a homage which he pays to the infant Jesus, a homage which makes the observer forget our modern times with all their technical progress and which takes the imagination back hundreds of years.



At a Christmas service in Provence

The small hamlet, Allauch, is situated among green olive-fields only half an hour's motor-ride from Marseilles. Like a fortress of the Holy Grail, it rises out of the wide, endless plain, and here in an old wooden church, the peasantry celebrates Mass. Shepherds with their flocks are coming down from the mountain, their path scantily lit up by torches that reflect curious shadows on the rocks. Clad in their national costumes—the men in their shepherd's-dress, the women in their beautiful Provençal peasant-costume—they walk in pairs. When reaching the priest, on whose knees rests the image of the infant Jesus, they lift up a little lamb and thus, following an old tradition, pay homage to the Saviour. These celebrations of a pious people holding fast to old traditions strike the imagination as a dream and vision of another world.

But there is another Provençal characteristic which is unique. It is the peasants' great love for the manger, as well as the centuries-old cultivation of the making of mangers. The family histories are engraved in wax on these Provençal mangers; they are the country's cultural documents. On the manger of a Provençal home will be found engraved the names of all those who have ever lived in the house. It is a record of past generations. The manger of the inn-keeper at Arles, for instance, is a cultural monument; twenty metres wide and ten metres deep, it contains no fewer than seventeen hundred figures.

On Christmas Eve the young shepherds of the province and their brides meet in the Jesuit church at Arles in order to offer a "bridal homage" before a living manger—even the donkey and the ox are alive. A stableman leads the procession. With a horse on his right and his bride to his left they proceed slowly to the church to the sounds of drums. They are followed by the engaged couples bringing bridal presents for the infant Jesus. In its piety, simplicity, and beauty, Christmas in Provence is unforgettable.

H. R.

# ... and along the Reef

ON every mine along the South African Reef from Randfontein to Springs the Christmas fever, like the Christmas pudding, begins to bubble in November.

Every day the native butcher boy, the grocer's boy, the milk boy, the boy who delivers the papers, the boys who call daily to collect the garbage, and every other "boy" who can think of a reason for opening the housewife's gate, roll their eyes, flash their teeth and remind her that they will be at her door bright and early on Christmas morning for their "Kissmas-bok-ies." And they are not in the least daunted by the scowls and muttered threats of the house "boy" who feels that all "Kissmas-bok-ies" should be kept "in the family."

Towards the end of November numbers of the mine police "boys," more than half of whom she has never set eyes on before, find any and every excuse to pop into her garden to assure her that they have been on duty ever so many nights guarding her property. And they plunge into a story of how only a few nights before they caught a "boy" creeping up to the veranda! A loud and unbelieving sniff from the house "boy" prompts her to inquire if that was so why was the household not aroused. Oh, for a little thing like that there was no need, not while he was on duty! And as for the "boy," there is no need to worry about him; he will never return, for, without a doubt, he is still running.

The "Kissmas-bok-ies" habit seems to be catching, and the housewife finds herself almost unconsciously greeting her Indian greengrocer, who, for some reason I have never been able to discover, is known as, and always addressed as, "Sammy," with an admonition: "Now, Sammy, don't forget my Christmas-box." Sammy is shocked at the mere suggestion of such a thing; he waves a book before her eyes and assures her that he has planned it all and written it down! And, true to his word, on Christmas Eve, Sammy drives round the mine, presenting each of his customers with a Christmas-box. A box of peaches, another of apricots or grapes. Three or four pawpaws, half a dozen grape-fruits, a bunch of bananas, and, to his specially good customers—those who pay their account regularly every month—he presents also a large box of chocolates. And even then he is not satisfied! For, as the embarrassed housewife is murmuring her thanks, Sammy dashes back to his cart for something extra. A few heads of lettuce, a basket of tomatoes, and a couple of cabbages which he insists are "sugar-lo."

And how, you will ask, can Sammy afford to ruin himself in this way? Save your tears; Sammy is not ruined—far from it! He has been busy preparing for all this since the previous January by adding twopence here and threepence there, so that by June he had quite enough in hand to pay for all the gifts he meant to give at Christmas. And after June? Well, Sammy just keeps on adding the extra pennies where he can, for, who knows? the next year may be a hard one.

By now the Christmas fever in the compounds has reached almost boiling point, and little except "Kissmas" and "Kissmas-bok-ies" is discussed. Each of the mine compounds house three or four thousand native workers of different tribes, and as Christmas draws near tribal feeling begins to run high. Quite early in December the Zulus have begun to sneer at the Xosas, and the Pondas at the Shanganas. Threats are shouted, challenges accepted, and

so begin the preparations for the battle royal that one and all are eagerly looking forward to. Knobkerries, assegais, knives, sticks of every description, and even large stones, are carefully hidden away. But a few days before Christmas Eve their high hopes are dashed by the arrival from the nearest town of two or three European police and their native assistants. These, in company with the compound manager and mine police "boys," search every nook and cranny, and, amid loud groans from the on-lookers, a motor lorry is loaded with the confiscated missiles and weapons. Each year the same thing happens, but the inmates of the compound never lose hope.

At last the great day dawns, and one is wakened by the sound of giggles, shuffles, and scuffles. Impossible to ignore it, for the giggling and shuffling not only continues, but increases in volume. You glance at the clock. Ten minutes to five! There is nothing for it but to get up, and, when dressed, arm yourself with some of the small silver coins that you have placed ready, then you step out on to the veranda. What a sight meets your eyes! The entire garden appears covered by members of the Bantu race in every style of dress and undress. They are squatting on the garden path, they are parked on the lawn, and some who have not been able to squeeze in are standing cooly, like storks, on one leg, just outside the gate.

Dazed by the overwhelming numbers, you stand and gape while a shout of joy that is at once followed by a bellow of "Kissmas-bok-ies" greets you. In vain you endeavour to sort out the half-dozen or so who have a right to a "bok-ies," but it is hopeless. In the end you scatter the coins and as they scramble you beat a retreat and firmly close the door.

To the compound manager Christmas Day is anything but a holiday, for on him rests the responsibility of keeping four thousand Bantu out of mischief, and that would tax the ingenuity of a wizard. Sports, which are entered into with zest, have been arranged; and for the Shanganas, who adore it, a dance, for which they will either visit another compound or receive members of their own tribe from a neighbouring mine. Great is the rivalry between the Shanganas, for each compound likes to boast that it possesses the best dancers.

And, of course, the costumes of the dancers call for much thought, for each "boy" burns with ambition to flatten out a rival with something really startling. Dawn on Christmas morning finds them rubbing themselves with the fat of an ox—lion and leopard being almost unobtainable on the Rand, where the police frown on witch-doctors. Next, their ankles and wrists are adorned with dozens of wire bracelets, while from their knees and upper arms swing furry tails. The Shanganas have an eye for colour, and their "skirts" (a yard and a half of cotton material wrapped round the waist and falling to either knee or ankle, according to taste) are of brilliant hue. A "skirt" with a bright green ground will have pink radio receivers scattered all over it, and a blue ground will be covered by yellow aeroplanes. Feather pom-poms, stuck at a rakish angle, serve as a head-dress, and some—they are greatly envied—will have a disused radio valve cooly hanging over one ear.

Now they are all set, and if they are visiting a neighbouring compound they are marshalled into line, while the musicians come on the run to load their "pianos" on to the waiting lorry. The "pianos" safe, they cling on themselves as best they can, and are driven off, leaving the dancers to follow on foot.

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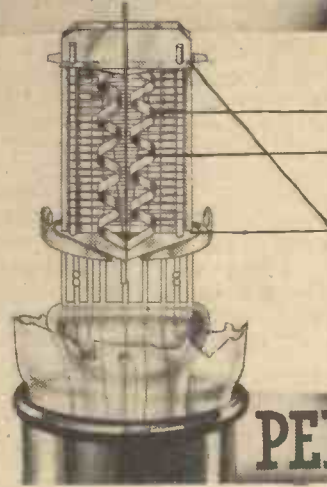
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# IN NEXT WEEK'S PROGRAMMES

## SUNDAY

### "Hänsel and Gretel"

7.0—9.0 p.m. BERLIN (356.7 m.); DEUTSCHLANDSENDER (1,571 m.) (excerpts) on Monday at 8.20 p.m.; HAMBURG (331.9 m.) on Monday at 6.0 p.m.; STUTTGART (522.6 m.); FRANKFURT (251 m.); MUNICH (405.4 m.) on Tuesday at 4 p.m.

### Bach's Christmas Oratorio

7.0—9.0 p.m. Breslau (315.8 m.); LEIPZIG (382.2 m.) at 11.0 p.m. on Monday; HUIZEN (1,875 m.) on Tuesday and Wednesday at 2.10 p.m.; RADIO-PARIS (1,648 m.) (excerpts) on Thursday at 8.45 p.m.

### Beethoven's "Missa Solennis"

7.55—9.40 p.m. HILVERSUM (301.5 m.), from the Concertgebouw, Mengelberg conducting.

## MONDAY

### Dickens in Belgium

8.10—9.5 p.m. BRUSSELS NO. 1 (483.9 m.). "Scrooge's Christmas."

### A French Christmas Programme

8.45—11.0 p.m. French Stations, Ropartz, Hahn, Debussy.

## TUESDAY

### A Künneke Operetta

7.0—9.0 p.m. HAMBURG (331.9 m.), relayed BREMEN, HANOVER, etc. "Little Dorrit."

### "A Night in Venice"

7.0—9.15 p.m. VIENNA (506.8 m.), relayed by GRAZ, INNSBRUCK, etc. A Johann Strauss operetta.

### "The Barber of Bagdad"

7.15 p.m. COLOGNE (455.9 m.). Cornelius' comic opera.

## WEDNESDAY

### A Dvořák Opera

6.30—9.0 p.m. PRAGUE (470.2 m.). "The Jacobin."

### A Jerome Kern Operetta

7.15—9.45 p.m. COPENHAGEN (255.1 m.), relayed by KALUNDBORG (1,261 m.). "Music in the Air."

### Monteverde's "Orfeo"

8.0 p.m. ROME (420.8 m.), relayed by Bari, Naples, etc., TURIN (263.2 m.), relayed by Milan, Trieste, etc.

## THURSDAY

### "Carmen"

7.0—10.10 p.m. STOCKHOLM (426.1 m.), relayed by Motala, etc. From the Opera House.

### "Tristan and Isolde"

7.40—9.0 p.m. MUNICH (405.4 m.), relayed by AUGSBURG, NÜRNBERG, etc. The second act.

### "Children at Bethlehem"

10.30 p.m. RADIO-PARIS (1,648 m.), STRASBOURG (349.2 m.). A Christmas Mystery with music by Pierné.

## FRIDAY

### In Merry Mood

7.15—8.0 p.m. LEIPZIG (382.2 m.), relayed by DRESDEN. Masters of Music make fun of their art.

### The Warsaw Philharmonic

7.15—9.30 p.m. WARSAW (1,339 m.), relayed by Lwów, Wilno, etc.

### Contemporary Music

8.0—9.0 p.m. DEUTSCHLANDSENDER (1,571 m.). The Berlin Philharmonic, conducted by Schuricht.

## SATURDAY

### Two Lehár Operettas

7.10—9.0 p.m. MUNICH (405.4 m.), relayed by Augsburg, Nürnberg, etc. "The Czarevitch." 7.40 p.m. SOTTENS (443.1 m.), relayed by Geneva. "The Merry Widow."

### French Musical Comedy

8.0—10.30 p.m. RADIO-PARIS (1,648 m.). "La petite chanson des hommes," by Clergue.

### Christmas Music

At all European stations, Christmas music, both sacred and lighthearted, makes up the bulk of the coming week's programmes. Several stations are again making use of the records which were collected and distributed last year by the International Union (Union Internationale de Radiodiffusion). Listeners will no doubt remember that records of the Christmas music of most of the European countries were specially made and distributed so that each might hear the traditional songs in which, from time immemorial, the others had celebrated the Festival. Many of those carols are closely bound up with mankind's history, and some of those which we still sing, belong to a very dim and distant past. Some, indeed, are so old that we can only guess at their origin, or say, like Topsy, that they "just grewed." The earliest ones no doubt grew very naturally out of the hymns of the church service in the age when Latin was dropping out of use as a language which all the world knew. Others, in almost every Christian country, had their roots in folk-songs, and there are some old melodies which have been wedded first to popular words, divorced and united to Nativity or kindred hymn-verses, and again separated and restored to their original partners. In England vicissitudes of a like kind can often be accounted for by politics. Thus the Reformation is usually blamed for suppressing many beautiful old carols in praise of the Virgin, and, indeed, for discouraging the singing of carols at all, as unbecomingly mirthful: even at the Restoration the carol hardly came back to the place it had enjoyed before, though many saw them-

selves in print for the first time then. But besides the carols of folk-song origin, some of them the common property of most European countries, there are many which were written by great composers; William Byrd, Orlando Gibbons, Henry Lawes, and other old English masters, for instance, composed carols. These are often more elaborate than the folk-song examples, written for the several voices of the church choir instead of the simple unison of earlier examples. They fall very naturally—folk-song and the more sophisticated alike—into pretty distinct groups: Nativity carols, including some very beautiful Cradle Songs, Annunciation, Shepherd, and Epiphany Carols, the picturesque element of the Magi usually inspiring the last. And there is, too, a group of frankly festive and merry songs which are known as the Wassail Carols.

### Hänsel and Gretel

This fairy tale opera by Humperdinck, to a story written by his sister, is to be heard from several stations in the coming week. Based mainly on German folk tunes, its melodies throughout are of the simplest and happiest order. The Overture begins with the melody of the Children's Evening Prayer. Then there breaks in the stirring music of the witch and her gingerbread house; the merrymaking of the children is heard, too, and the song of thanksgiving at their deliverance from the witch's spell; but the music of the Prayer dominates most of the Overture, and it is welded with the other tunes in the most cunning way. The two children begin the first act by

themselves, in their humble home; they are romping and singing when their mother returns to find them neglecting the tasks she had set them. She packs them off to the wood to gather berries, and no sooner have they gone than the father comes home; he has had a lucky day, selling his brooms. When he hears where the children are he is horrified, and soon makes his wife share in his terror; a witch, he tells her, lives in the wood, who eats little children. They rush off together in search of Hänsel and Gretel. Act II is in the wood where the children have lost their way. In answer to their prayer, as they lie down to sleep, angels come down from on high to guard them. In the third Act we meet the witch, and hear of her enchantments. But Hänsel's courage and Gretel's nimble wits are too much for her, and in the end she is baked in her own oven, and the story ends happily for everyone else.

### When Beethoven Lost a Penny

Besides the pieces to which Beethoven's admirers have given fanciful titles, like the "Moonlight" Sonata, there are several which he named himself. One of the best known is the Piano-forte Rondo of which the full title is "Die Wuth über den verlorren Groschen ausgetobt in einer Caprice," which means, "The fury over a lost penny, vented in a Caprice." "Ausgetobt" means that the fury has spent itself by thus giving vent to its feelings. The piece, a favourite with pianists and listeners alike, is included in a programme of merry music by the great masters; Leipzig relays it from Dresden on Friday evening, at 7.15.

# PROGRAMME STATIONS IN ALPHABETICAL ORDER

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

	kc/s	m.	kW		kc/s	m.	kW
Aberdeen .....	1285	233.5	1	Leipzig (Germany)..Relayed by Dresden.....	785	382.2	120
Algiers (North Africa).....	941	318.8	12	Linz (Austria)..Relays Vienna.....	1294	231.8	0.5
Athlone (Ireland)..Relayed by Dublin and Cork	565	531	60	London Regional (Gt. Britain).....	877	342.1	50
Augsburg (Germany)..Relays Munich.....	1267	236.8	0.25	London National (Gt. Britain).....	1149	261.1	50
Barcelona (Spain) EAJ1.....	795	377.4	5	Lwów (Poland)..Relays Warsaw.....	795	377.4	16
Bari (Italy)..Relays Rome.....	1059	283.3	20	Lyons (La Doua) (France).....	648	463	15
Basle (Switzerland)..Relayed by Beromünster...	1375	218.2	0.5	Madrid (Spain) EAJ7.....	1095	274	7
Belfast (N. Ireland).....	1122	267.4	1	Magdeburg (Germany)..Relays Hamburg.....	1330	225.6	1.5
Belgrade (Yugoslavia).....	686	437.3	2.5	Midland Regional (Gt. Britain).....	767	391.1	25
Berlin (Germany).....	841	356.7	100	Milan (No. 1) (Italy)..Relays Turin.....	814	368.6	50
Berne (Switzerland)..Relayed by Beromünster..	1375	218.2	0.5	Milan (No. 2) (Italy)..Relays Rome.....	1348	222.6	4
Beromünster (Switzerland) .. Relays Basle and				Monte Ceneri (Switzerland).....	1167	257.1	15
Berne .....	556	539.6	100	Moravská-Ostrava (Czechoslovakia).....	1113	269.5	11.2
Bordeaux Lafayette (France).....	1077	278.6	12	Moscow (No. 1) (Russia).....	174	1724	500
Bournemouth .....	1474	203.5	1	Motala (Sweden)..Relays Stockholm.....	216	1389	30
Bratislava (Czechoslovakia).....	1004	298.8	13.5	Munich (Germany) .. Relayed by Augsburg,			
Bremen (Germany)..Relays Hamburg.....	1330	225.6	1.5	Kaiserslautern, and Nürnberg.....	740	405.4	100
Breslau (Germany)..Relayed by Gleiwitz.....	950	315.8	17	Naples (Italy)..Relays Rome.....	1104	271.7	1.5
Brno (Czechoslovakia).....	922	325.4	32	North National (Gt. Britain).....	1013	296.2	50
Brussels (No. 1) (Belgium).....	620	483.9	15	North Regional (Gt. Britain).....	668	449.1	50
Brussels (No. 2) (Belgium).....	932	321.9	15	Notodden (Norway)..Relays Oslo.....	1357	221.1	0.15
Bucharest (Romania).....	823	364.5	12	Nürnberg (Germany)..Relays Munich.....	1267	236.8	2
Budapest (No. 1) (Hungary).....	546	549.5	120	Oslo (Norway)..Relayed by Fredrikstad, Hamar,			
Cassel (Germany)..Relays Frankfurt.....	1195	251	1.5	Notodden, Porsgrund, Rjukan, Stavanger, and			
Cologne (Germany).....	658	455.9	100	Trøndelag .....	260	1154	60
Copenhagen (Denmark) .. Relayed by Kalundborg	1176	255.1	10	Paris (Poste Parisien) (France).....	959	312.8	100
Cork (I.F.S.)..Relays Athlone.....	1240	241.9	1	Paris (PTT) (France).....	695	431.7	7
Danzig (Free City)..Relays Königsberg.....	1303	230.2	0.5	Paris (Radio-Paris) (France).....	182	1648	75
Deutschlandsender (Germany).....	191	1571	60	Porsgrund (Norway)..Relays Oslo.....	850	352.9	0.7
Dornbirn (Austria)..Relays Vienna.....	1294	231.8	0.5	Poznań (Poland)..Relays Warsaw.....	868	345.6	16
Dresden (Germany)..Relays Leipzig.....	1285	233.5	1.5	Prague (Czechoslovakia).....	638	470.2	120
Droitwich (Gt. Britain).....	200	1500	150	Radio-Normandie (France).....	1456	206	10
Dublin (Ireland)..Relays Athlone.....	1348	222.6	0.2	Reykjavik (Iceland).....	208	1442	16
Flensburg (Germany)..Relays Hamburg.....	1330	225.6	1.5	Riga (Latvia).....	583	514.6	15
Florence (Italy)..Relays Turin.....	609	492.6	20	Rjukan (Norway)..Relays Oslo.....	1348	222.6	0.15
Frankfurt-am-Main (Germany) .. Relayed by				Rome (Italy) .. Relayed by Naples, Milan			
Trier, Kaiserslautern, Cassel, and Freiberg	1195	251	17	(No. 2), Turin (No. 2), and Bari.....	713	420.8	50
Fredrikstad (Norway)..Relays Oslo.....	776	386.6	0.7	Salzburg (Austria)..Relays Vienna.....	1348	222.6	0.5
Freiburg (Germany) .. Relays Frankfurt and				Scottish National (Gt. Britain).....	1050	285.7	50
Stuttgart .....	1195	251	5	Scottish Regional (Gt. Britain).....	804	373.1	50
Geneva (Switzerland)..Relayed by Sottens.....	401	748	1.3	Sottens (Switzerland)..Relays Geneva.....	677	443.1	25
Genoa (Italy)..Relays Turin.....	986	304.3	10	Stavanger (Norway)..Relays Oslo.....	1276	235.1	0.5
Gleiwitz (Germany)..Relays Breslau.....	1231	243.7	5	Stettin (Germany)..Relays Hamburg.....	1330	225.6	1.5
Göteborg (Sweden)..Relays Stockholm.....	941	318.8	10	Stockholm (Sweden)..Relayed by Motala, Göte-			
Graz (Austria)..Relays Vienna.....	886	338.6	7	borg, and Hörby.....	704	426.1	55
Hamar (Norway)..Relays Oslo.....	510.5	587.7	0.7	Strasbourg (France).....	859	349.2	15
Hamburg (Germany) .. Relayed by Bremen,				Stuttgart (Germany)..Relayed by Freiburg.....	574	522.6	100
Flensburg, Hanover, Magdeburg, and Stettin	904	331.9	100	Toulouse (Radio-Toulouse) (France).....	913	328.6	60
Hanover (Germany) ..Relays Hamburg.....	1330	225.6	1.5	Trier (Germany)..Relays Frankfurt.....	1195	251	2
Heilsberg (Königsberg) (Germany)..Relayed by				Trieste (Italy)..Relays Turin.....	1222	245.5	10
Danzig .....	1031	291	60	Trøndelag (Norway)..Relays Oslo.....	629	476.9	20
Helsinki (Finland)..Relays Lahti.....	895	335.2	10	Turin (No. 1) (Italy)..Relayed by Milan, Genoa,			
Hilversum (Holland) .....	995	301.5	20	Florence, and Trieste.....	1140	263.2	7
Hörby (Sweden)..Relays Stockholm.....	1131	265.3	10	Turin (No. 2) (Italy)..Relays Rome.....	1357	221.1	0.2
Huizen (Holland).....	160	1875	7	Vienna (Bisamberg) (Austria)..Relayed by Graz,			
Innsbruck (Austria)..Relays Vienna.....	519	578	0.5	Innsbruck, Klagenfurt, Linz, Salzburg,			
Juan-les-Pins (Radio Côte d'Azur) (France).....	1249	240.2	2	and Dornbirn.....	592	506.8	120
Kaiserslautern (Germany)..Relays Munich and				Warsaw (No. 1) (Poland)..Relayed by Katowice,			
Frankfurt .....	1195	251	1.5	Lwów, Poznań, and Wilno.....	224	1339	120
Kalundborg (Denmark)..Relays Copenhagen...	238	1261	60	West National (Gt. Britain).....	1149	261.1	50
Katowice (Poland)..Relays Warsaw.....	758	395.8	12	West Regional (Gt. Britain).....	977	307.1	50
Kaunas (Lithuania).....	155	1935	7	Wilno (Poland)..Relays Warsaw.....	536	559.7	16
Klagenfurt (Austria)..Relays Vienna.....	1294	231.8	4.2				
Lahti (Finland) ..Relayed by Helsinki.....	166	1807	40				

**NATIONAL**

Time Signals : Big Ben.—12.30 p.m.—Greenwich.—10.30 a.m., 4.30 p.m., 9.0 p.m.  
 10.30-10.45 a.m. (Droitwich) — Weather Forecast, etc.  
 12.30 p.m. (Droitwich) — Christmas Concert. Western Studio Orchestra. Clifford Deri (Baritone).  
 1.30 (Droitwich)—Winifred Small (Violin): Suite in Olden Style (Zimbalist). By the Fountain (Schumann). Slav Dance in E minor (Dvořák-Kreisler). Apassionato (Suk).  
 2.0 (Droitwich)—Records : Opera.  
 2.45 (Droitwich)—B.B.C. Northern Orchestra.  
 3.45 (Droitwich)—The Bernard Crook Quintet. Turkish Rondo (Mozart). Love Song (Sammartini). Intrada (arr. Moffat). Dance of Fire and Water (The Blue Bird) (O'Neill). Water Wagtail (Scott). Pool of Narcissus (Fletcher). Farandole (Glazounov). Selection of Schubert's Music. Berceuse (Järnefelt). Humoresque (Tchaikovsky). Two Waltzes (Coleridge Taylor).  
 4.30—Service for Young People.  
 5.0 — "The New Christendom." "Sharing the Gospel: 1. By the Spoken Word." Rev. W. J. Noble.  
 5.15—"Question Time on Tower Hill"—6, Rev. D. O. Soper, Ph.D.  
 5.30—Griller String Quartet. Dora Labbette (Soprano).  
 6.45—"The History of the Hansom Cab."  
 7.5—Wilfred Miles (Tenor); Lamond (Pianoforte).  
 7.55—Service from St. Michael's, Chester Square.  
 8.45—An appeal on behalf of the Middlesex Hospital, by H.R.H. Prince Arthur of Connaught, K.G.  
 8.50—"The News."  
 9.0—The Celebrity Trio. Serenade (Schubert). Arabasque No. 2 (Debussy). Gavotte in E (Bach-Kreisler). Fairy Frolic (Quilter). Berceuse (Godard). Miniature Viennese March (Kreisler). Minuet (Beethoven). Passacaglia (Scott).  
 9.30—Part 1 of Handel's "Messiah." Stiles Allen (Soprano). Margaret Balfour (Contralto). Tom Pickering (Tenor). Keith Falkner (Bass). B.B.C. Chorus. B.B.C. Orchestra (Section D). Conductor, Adrian Boult.  
 10.45—Epilogue.

**REGIONAL**

Time Signals : Big Ben.—12.30 p.m.—Greenwich.—4.30 p.m., 9.0 p.m.  
 11.0 a.m.—12.15 p.m. (West)—Service.  
 12.30-4.30 (except Midland; Scottish till 4.0)—Droitwich.  
 4.0 (Scottish)—Children's Service.  
 4.30—The London Symphony Orchestra, conducted by Sir Hamilton Harty. Overture, Beatrice and Benedict (Berlioz). Variations on a Theme of Haydn (Brahms). The Walk to the Paradise Garden (Delius). Fantasy Scenes, from an Eastern Romance (Harty).  
 5.30 (ex. Midland and North)—The Wireless Military Band. Frederick Ranalow (Baritone).  
 5.30 (Midland)—Wisbech Male Choir. Lillian Niblette (Pianoforte).  
 5.30 (North)—Brighouse and Raistrick Brass Quartet and Colne Orpheus Male Choir.  
 6.30-7.45 (Scottish and West till 7.30)—B.B.C. Theatre Orchestra. Walter Glynne (Tenor).  
 7.30 (Scottish)—"How I spend my Sunday."  
 7.30 (West)—Children's Singing Festival.  
 7.55 (North)—Roman Catholic Service from St. Joseph's College, Mill Hill.  
 7.55 (Scottish)—Service from St. George's Parish Church, Edinburgh.  
 7.55 (West)—Congregationalist Service from Argyll Church, Bath.  
 7.55 (Belfast)—National Programme.  
 8.0 (London)—Baptist Service.  
 8.0 (Midland)—Carol Programme relayed from the Church of the Messiah, Birmingham. Midland Wireless Singers. Gilbert Mills (Organ).  
 8.45—National Programme.  
 8.50—"The News."  
 9.0—Melodies of Christendom—11. An Anthology of Sacred Music under the direction of Sir Walford Davies.  
 9.30 (London, West, Belfast)—The Gershom Parkington Quintet.  
 9.30 (Midland)—Band of H.M. Royal Air Force College. Percy Underwood (Baritone).  
 9.30 (North)—Northern Orchestra. Alfred Barker (Violin).  
 9.30 (Scottish)—Scottish Wireless Singers. W. Watt Jupp (Violin). Ian Whyte (Pianoforte).  
 10.15 (London, West, Belfast)—Albert Sammons (Violin).  
 10.45—Epilogue.

**Programmes: SUNDAY**

**PRINCIPAL EVENTS**

**SERVICES AND SACRED MUSIC**

A.M.  
 10.0 Italian stations : Mass from Florence  
 NOON  
 12.0 Radio-Paris : Religious address.  
 P.M.  
 1.40 Kalundborg : Buxtehude, Bach.  
 7.0 Breslau : Christmas Oratorio (Bach).  
 7.0 Königsberg : Advent Cantata (Besch).  
 7.50 Munich : "Das Jesukind in Flandern" (Karl Marx).  
 7.55 Hilversum : Missa Solennis (Beethoven).  
 8.0 Brussels No. 1 : Sacred concert.  
 9.0 Huizen : Christmas music.  
 9.20 Munich, etc. : Schütz church music.

**SYMPHONY CONCERTS**

A.M.  
 11.15 Warsaw : The Philharmonic.  
 11.30 Budapest : Franz Schmidt concert.  
 P.M.  
 3.0 Radio-Paris : Mozart, Ravel.  
 5.0 Paris (PTT), Strasbourg : Pacheloup.  
 7.0 Monte Ceneri : Bach concert.  
 7.35 Sottens : Conductor, Ansermet.  
 8.30 Strasbourg : Christmas music.

**LIGHT CONCERTS**

P.M.  
 2.30 Oslo : Relay from Chicago.  
 3.0 Leipzig : Choir and orchestra.  
 5.0 Brussels No. 2 : Orchestra, viola.  
 6.0 Hilversum : Operetta and light music.  
 7.0 Warsaw : Symphony orchestra.  
 7.15 Kalundborg : From German opera.  
 7.30 Bucharest : Romanian music.  
 8.0 Radio-Paris : Orchestra, songs.  
 8.15 Stockholm : Choir, Finnish music.  
 8.30 Paris (PTT) : Variety concert.  
 9.15 Oslo : Norwegian dances.  
 9.20 Budapest : Cigány band.

9.25 Cologne : Popular operatic.  
 9.30 Leipzig : Station Orchestra.  
**OPERAS**  
 P.M.  
 7.0 Berlin : "Hänsel und Gretel" (Humperdinck).  
 7.0 Beromünster : "Vakoula the Smith" (Tchaikovsky).  
 7.0 Leipzig : "Christelflein" (Pfitzner).  
 11.0 Frankfurt, Stuttgart : "The Merry Wives of Windsor" (Nicolai) (records).  
**OPERETTA**  
 P.M.  
 8.25 Kalundborg : "The Gipsy Baron" excerpts.  
**CHAMBER MUSIC**  
 P.M.  
 6.0 Brussels No. 2 : Quartets (Mozart, Beethoven, Jongen).  
 7.0 Vienna : Violin, pianoforte (Pfitzner).  
**RECITALS**  
 A.M.  
 11.30 Radio-Paris : Organ.  
 P.M.  
 2.10 Hilversum : Organ, song, trumpet.  
 6.0 Radio-Paris : Songs.  
**PLAYS**  
 P.M.  
 6.25 Breslau : Christmas play.  
 7.0 Radio-Paris : Bilboquet Play.  
 7.30 Stockholm : "Old Folk's Christmas."  
**DANCE MUSIC**  
 P.M.  
 5.0 Brussels No. 1; 7.0, Hamburg; 9.30, Breslau, Königsberg, Prague, Vienna, Warsaw; 10.5, Kalundborg; 10.10, Brussels Nos. 1, 2, Budapest; 10.30, Radio-Paris; 10.40, Strasbourg; 11.0, Paris (PTT), Cologne.

Hours of Transmission in Greenwich Mean Time

**5 a.m.**

BERLIN, BRESLAU, COLOGNE, DEUTSCHLANDSENDER, FRANKFURT, KÖNIGSBERG, LEIPZIG, MUNICH and STUTT-GART, 5.35—See Hamburg.  
 HAMBURG, 5.35—Bremen Harbour Concert.  
 MOSCOW (No. 1), 5.0 — Records. 5.10—Programme Review. 5.30—Concert.

**6 a.m.**

BERLIN, BRESLAU, COLOGNE, DEUTSCHLANDSENDER, FRANKFURT, KÖNIGSBERG, LEIPZIG, MUNICH and STUTT-GART, 6.0—See 5.35 Hamburg.  
 HAMBURG, 6.0—Bremen Harbour Concert (contd. from 5.35).  
 MOSCOW (No. 1), 6.0—Concert.  
 PRAGUE, 6.0—Music & News. 6.30—Karlbad Municipal Orchestra.

**7 a.m.**

BERLIN, 7.25—Motto. 7.30—"The Christmas Tree"—Legends and Poems. 7.55—Chimes.  
 BRESLAU, 7.0—See 5.35 Hamburg. 7.15—Motto. 7.25—Records.  
 COLOGNE, 7.0—Time; News. 7.10—For Farmers. 7.30—Sacred Music.  
 DEUTSCHLANDSENDER, 7.0—For Farmers. 7.55—The Spirit of Love—Sunday Programme.  
 FRANKFURT, 7.0—See 5.35 Hamburg. 7.15—Time; News. 7.25—Gym. 7.45—Wind Band.  
 HAMBURG, 7.0—Bremen Harbour Concert (contd. from 5.35). 7.15—Time; News. 7.30—Gym. 7.45—Wireless Notes.  
 KALUNDBORG, 7.0—Gym. 7.30—Weather.  
 KÖNIGSBERG, 7.0—See 5.35 Hamburg. 7.20—For Countrywomen.  
 LEIPZIG, 7.0—See 5.35 Hamburg. 7.20—Organ : German Christmas

Music. 7.50—Service from Halle. MOSCOW (No. 1), 7.15—For Children.  
 MUNICH, 7.0—See 5.35 Hamburg. 7.30—Pianoforte Sonata in A (Schubert), by Agnes Forell.  
 OSLO, 7.40—Gym.  
 PARIS (Radio-Paris), 7.0—Records. 7.15—Press Review. 7.45—Gym.  
 PRAGUE, 7.0—Karlbad Municipal Orchestra. 7.30—Bach Organ Music.  
 RADIO-NORMANDIE, 7.0—Records. 7.20—News. 7.45—Records. 7.48—Racing. 7.50—Record. 7.53—Cookery.  
 STUTT-GART, 7.0—See 5.35 Hamburg. 7.15—News. 7.25—Gym. 7.40—Announcements.  
 VIENNA, 7.15 — Announcements. 7.20—Gym. 7.40—Hints for the Week. 7.55—Records.

**8 a.m.**

BERLIN, 8.0—Service from Potsdam Garrison Church.  
 BRATISLAVA, 8.0—Roman Catholic Address. 8.15—Old Slovak Christmas Carols. 8.40—Talk : Slovak Christmas Customs. 8.50—Records.  
 BRESLAU, 8.0—Chimes. 8.5—Protestant Service.  
 BUDAPEST, 8.15—Announcements.  
 COLOGNE, 8.15—Surprise Programme.  
 DEUTSCHLANDSENDER, 8.0—The Spirit of Love (contd. from 7.55).  
 FRANKFURT, 8.0—Roman Catholic Service. 8.45—Bach and Handel Recital by Sophie Hoepfel (Soprano), Aennelle Stadler-Baumbaach (Contralto), Lorscheider (Tenor) and Members of the Station Orchestra.  
 HAMBURG, 8.0—Art Notes. 8.15—Records.  
 HILVERSUM, 8.40—Records. 8.45—Football Notes. 8.50—Gardening Talk.  
 HUIZEN, 8.10—Religious Programme.  
 KALUNDBORG, 8.15-8.45—Talk : Christmas Fare.  
 KÖNIGSBERG, 8.0—Protestant Service.  
 LEIPZIG, 8.0—Service (contd. from 7.50). 8.20—Advent Songs and Christmas Carols, from Berthelsdorf. The

Berthelsdorf Kurrende (Schoolboys' Street Singing Choir). Conductor : Meschwitz.  
 MUNICH, 8.0—Pianoforte Sonata (Schubert) (contd. from 7.30). 8.10—Wireless Notes. 8.30—Protestant Service.  
 OSLO, 8.30—Records.  
 PARIS (PTT), 8.0—News. 8.30—Organ from the Cavaille-Coll.  
 PARIS (Radio-Paris), 8.0—Records.  
 PRAGUE, 8.0—Talk. 8.15—Talk with Recitations : The Classical Ballad. 8.45—Conradina Mola (Harpisichord).  
 ROME, 8.40—Announcements.  
 STUTT-GART, 8.0—Roman Catholic Service from St. George's Church. 8.45—Chamber Music by Schmidt (Viola), Völker (Flute) and Heckmann (Harp). Passacaglia in G minor (Handel). Sonata (Debussy).  
 TURIN, 8.40—News.  
 VIENNA, 8.0—Records. 8.40—Service from the Franciscan Church.  
 WARSAW, 8.0—Hymn. 8.5—Record. 8.7—Gym. 8.22—Records. 8.30—News. 8.40—Records. 8.45—For Housewives. 8.50—Announcements.

**9 a.m.**

BERLIN, 9.0—Chimes. 9.5—Weather.  
 BEROMÜNSTER, 9.0—Roman Catholic Address. 9.45—Eighteenth Century Harpsichord Concertos and Trio Sonatas.  
 BRATISLAVA, 9.0—Records. 9.15—Christmas in Slovak Literature, with Recitations.  
 BRESLAU, 9.0—Talk and Readings : Christmas Letters. 9.30—Songs and Christmas Carols by the Beuthen Boys' Choir. Conductor : Kluss.  
 BUCHAREST, 9.30—Service. 9.45—Religious Address.  
 BUDAPEST, 9.0—High Mass.  
 COLOGNE, 9.0—Music Talk. 9.30—Talk : Westphalian Church Treasures—The Bible at Rödighausen. 9.45—Martin Plüddemann Ballads by Wilhelm Strienz (Bass).  
 FRANKFURT, 9.0—Bach and Handel Recital (contd. from 8.45). 9.15—Darmstadt "Frohinn-Harmonie," Male Voice Choir. Conductor : Simmermacher, Jun. Das Scheiden Wenzel. Abendglocke (Kampf).  
 Nach Hause (Niemyer). Ueber Nacht (Niemyer). Wie Gott will (Erk). Rose im Schnee (Grim). Der Jäger (Hummel). Abmarsch (Heinrichs).  
 HAMBURG, 9.30—Address.  
 HILVERSUM, 9.0—Gardening Talk. 9.20—Record. 9.25—Talk. 9.40—Protestant Service.  
 HUIZEN, 9.0—Religious Programme (contd. from 8.10). 9.10—Records : Sacred Music.  
 KALUNDBORG, 9.0—Service, from Aalborg Cathedral.  
 KÖNIGSBERG, 9.0—Russian Lesson. 9.40—For Children. 9.50—Weather; Programme Announcements.  
 LEIPZIG, 9.0—Talk : The German Reich. 9.30—Programme Announcements.  
 MOSCOW (No. 1), 9.15—Piatnitsky Choir ; Soloists.  
 MUNICH, 9.0—Protestant Service. 9.15—Reading. 9.40—String Quartet in C minor (Brahms) by the Paszhory Quartet.  
 OSLO, 9.0—Records. 9.20—Service.  
 PARIS (Poste Parisien), 9.0—Press Review. 9.20—Announcements. 9.30—Records : Marches. 9.50—Records : Opera Music.  
 PARIS (PTT), 9.0—Records : French Music.  
 PRAGUE, 9.0—Harpisichord (contd. from 8.45). 9.15—Talk. 9.40—An Appeal. 9.45—Octet for Two Violins, Viola, Cello, Double Bass, Clarinet, Horn and Bassoon (Zich).  
 ROME, 9.0—Rural Programme.  
 SOTTENS, 9.0—Protestant Service.  
 STOCKHOLM, 9.15—Records : String Quartet in F (Beethoven) by the Lener Quartet.  
 STRASBOURG, 9.30—Classical Records.  
 STUTT-GART, 9.5—"Willi Kagemacher, Adalbert Jakob and Karl Wüsteheld"—Sequence (arr. Elwenspoek). 9.20—Trio in E flat (Mozart) by Dreisbach (Clarinet), Köhler (Viola) and Sonnen (Pianoforte). 9.45—German Nation, German Heritage : "Wendenland"—Patriotic Play (Kanig).  
 TURIN, 9.0—Rural Programme.  
 VIENNA, 9.0—Service (contd. from 8.40).  
 WARSAW, 9.0—Service.

**10 a.m.**

BERLIN, 10.30—Christmas Music on Records.  
 BEROMÜNSTER, 10.0—Concertos and Sonatas (contd. from 9.45). 10.35—Cécile Lauber reads.  
 BRESLAU, 10.0—Songs (contd. from 9.30). 10.30—See Deutschlandsender.  
 BRUSSELS (No. 1), 10.0—Ludo Langlois' Band from the Century Hotel, Antwerp.  
 BRUSSELS (No. 2), 10.0—Request Concert. Orchestra. Conductor : Doulicz. Wigy (Violin). Ferari and Durand (Songs). Two Sketches (Fischer). Selection, "Le chemin du Paradis" (Heymann). Burlesque Variations for Violin and Strings : Le Carnaval de Venise (Paganini). Song, Ideale (Tosti). Parade of the Matchsticks (Wohle). Five Viennese Folk Songs (arr. Bass). Songs, "Viktoria and her Hussar" (Abraham). March Pot-pourri (Woitschbach).  
 BUCHAREST, 10.0—Choir : Sacred Songs. 10.30—Station Orchestra. Overture, "Lysistrata" (Lincke). Ballet, "La Juive" (Halévy). Selection, "White Horse Inn" (Benatzky). Souvenir (Karasteyanov). Intermezzo (Sessch). Melody (Rubenstein). Berceuse (Demare). Albumblatt (Gyldmark).  
 BUDAPEST, 10.0—Protestant Service.  
 COLOGNE, 10.0—Advent Music from the Christmas Oratorio (Bach). The Bach Choral Society, String Orchestra and Soloists. Conductor : Boell. 10.30—See Deutschlandsender.  
 DEUTSCHLANDSENDER, 10.0—Christmas Poems. 10.15—Weather. 10.30—Ludwig Holberg Programme, for the 25th Anniversary of his Birth. Pianoforte Solo by Hermann Hoppo : Holberg Suite (Grieg). Talk : Ludwig Holberg. Address by the Danish Ambassador.  
 FRANKFURT, 10.0—Jakob Kneip reads. 10.20—Pianoforte Duets of Diabelli, Mozart, Schubert, Schumann and Brahms by Merten and Rosbald.  
 HAMBURG, 10.20—A Visit to the Sugar Beet Factory at Ülzen.  
 HILVERSUM, 10.0—Service (co. itd. from 9.40).

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

## SUNDAY Dec. 23

## 10 a.m. (contd.)

HUIZEN, 10.0—Protestant Service from Amsterdam.

KALUNDBORG, 10.0—Service (contd. from 9.0). 10.20—Weather. 10.30—See Deutschlandsender.

KÖNIGSBERG, 10.0—Richard Trunk Lieder by Hanna Richtmeister (Soprano). 10.30—See Deutschlandsender.

LEIPZIG, 10.30—See Deutschlandsender.

MONTE CENERI, 10.30—Announcements; Bible Reading.

MOSCOW (No. 1), 10.15—Swedish Talk: Religion in Soviet Russia.

MUNICH, 10.0—String Quartet (Brahms) (contd. from 9.40). 10.10—"The Gate of Heaven"—Bavarian Christmas Legend (Weinberger). Station Chamber Choir. Conductor: Zengerle. The Munich Folk Song Trio. Eugenie Ebner (Harp).

OSLO, 10.0—Service (contd. from 9.20).

PARIS (Poste Parisien), 10.0—Records: Opera Music. 10.8—Extract, "Dix-neuf ans"—Operetta (on Records). 10.20-10.35—Station Orchestra. 10.40—Interlude.

PARIS (PTT), 10.0—Sports Review. 10.15—Records: Operatic Music.

PRAGUE, 10.0—Octet (Zich). 10.25—Introductory Talk to the following Transmission. 10.30—Joseph Bohuslav Foerster Concert for the Composer's Seventh-fifth Birthday. The Smetana Choral Society. Conductor: Spilka. To the Father. The Son. To the Mother. White Mount. The Peace. The Turtle. When we were parting. St. Wenceslas Choral.

RADIO-NORMANDIE, 10.0—Dance Music. 10.30—Records.

ROME, 10.0—See Turin.

SOTTENS, 10.0—Service (contd. from 9.0). 10.15—Records.

STOCKHOLM, 10.0—Service.

STRASBOURG, 10.0—Classical Records. 10.45—Protestant Service.

STUTTGART, 10.0—"Wendenland"—Play (contd. from 9.45). 10.30—Talk with Records: Christmas Shopping.

TURIN, 10.0—Mass from the Church of the Annunciation, Florence.

VIENNA, 10.0—Pianoforte Concerto in A minor (Schumann) by Grete Schöberl and the Vienna Symphony Orchestra. Conductor: Christoph. 10.35—Reading, 10.55—"The Star of Bethlehem"—Christmas Cantata (Rheinberger) by the "Dreizehnlinden" Choir and the Vienna Symphony Orchestra. Conductor: Habel. Christ Kern (Soprano), Emilie Rutschka (Contralto) and Elemer v. John (Baritone).

WARSAW, 10.0—Service; Records. 10.57—Time.

## 11 a.m.

BARCELONA, 11.15—Municipal Band, from the Palacio de Bellas Artes. Conductor: de Grignon.

BARI, 11.0—Religious Address.

BELGRADE, 11.0—Station Orchestra. 11.50—Announcements.

BERLIN, 11.0—See Hamburg. 11.55—Wilhelm Ehlers interviews a Parrot.

BEROMÜNSTER, 11.0—Berne Wind Instrument Ensemble. 11.30—Time; News. 11.40—Popular Music. The Mattenhof-Weissenbühl Male Voice Choir. Conductor: Hänni. Radio Orchestra. Conductor: Neppach.

BRATISLAVA, 11.15—Orchestra. Conductor: Dyk.

BRESLAU, 11.15—See Königsberg.

BRUSSELS (No. 1), 11.0—John Rutten Orchestra, from the Torenkelder Brasserie, Antwerp.

BRUSSELS (No. 2), 11.0—The Ludo Langlois Orchestra, from the Century Hotel, Antwerp. 11.55—Weather.

BUCHAREST, 11.0—Orchestra (contd. from 10.30). 11.30—Water Level; Amusement Guide; Records. 11.50—Light Music; Titi Botez (Entertainer).

BUDAPEST, 11.0—Protestant Service (contd. from 10.0). 11.20—News. 11.30—Franz Schmidt Concert, for the Composer's Sixtieth Birthday. The Opera House Orchestra. Conductor: Rajter. Introductory Talk. Third Symphony in A. Carnival and Entr'acte from "Notre Dame."

COLOGNE, 11.0—See 10.30 Deutschlandsender. 11.15—See 11.0 Munich.

DEUTSCHLANDSENDER, 11.0—Ludwig Hölberg Programme (contd. from 10.30). 11.15—Greetings. 11.30—See 11.15 Königsberg.

FRANKFURT, 11.0—See Munich.

HAMBURG, 11.0—Orchestra. Conductor: Rudolph. Overture, "Rienzi" (Wagner). Swedish Sketches (Jansen). Berceuse (Järnefelt). Selection, "Martha" (Flotow). Waltz, Bei uns zu Haus (Strauss). Strauss Operetta Potpourri (Schlogel). 11.55—Time; Weather.

HILVERSUM, 11.0—Service (contd. from 9.40). 11.40—Time; Talk.

HUIZEN, 11.0—Protestant Service (contd. from 10.0). 11.15 (approx.)—Loohys (Organ). 11.55—K.R.O. Orchestra. Conductor: Gerritsen. The Amazon (Peznick). Overture, Morning, Noon and Night (Suppé). Danse des matelots (Ebonet). Ein Melodientraum (Urbach). The Forge in the Forest (Michaelis). Spring Song (Mendelssohn). Bei uns zu Haus (Strauss).

KALUNDBORG, 11.0—See 10.30 Deutschlandsender. 11.15—News. 11.30—Light Music. Preil Instrumental Ensemble.

KÖNIGSBERG, 11.0—See 10.30 Deutschlandsender. 11.15—Opera House Orchestra. Conductor: Brückner. Overture, "Don Giovanni" (Mozart). Selection, "Prometheus" (Beethoven). Waltz, Künstlerleben (Strauss). The Moldau (Smetana). Overture, "The Merry Wives of Windsor" (Nicolaï). Selection, "Cavalleria rusticana" (Mascagni). Polonaise in E (Liszt).

LEIPZIG, 11.0—See 10.30 Deutschlandsender. 11.15—Concert.

MONTE CENERI, 11.0—Time; Weather. 11.5—Records: Organ Recital of Christmas Music. 11.30—Station Orchestra. Overture, "Paragraph III" (Suppé). Waltz (Strauss). Selection, "Tales of Hoffmann" (Offenbach). Selection "Die Puppenfee" (Bayer). Gallop (Millöcker). 11.55—News.

MOSCOW (No. 1), 11.0—Talk for Children, in English.

MUNICH, 11.0—Military Band, from the Feldherrnhalle. Conductor: Schiessl. Triumphant March and Chorus, "Aida" (Verdi). Overture, "Alessandro Stradella" (Flotow). Selection, "The Valkyrie" (Wagner). Waltz, Brüsseler Spitzen (Schmidt-Berka). Two Marches.

OSLO, 11.0—Service (contd. from 9.20). 11.45—News.

PARIS (Poste Parisien), 11.3—Station Orchestra. 11.18—Concert. 11.48—Records.

PARIS (PTT), 11.0—The Gosselin Orchestra. Bronstein (Pianoforte). Wiener Burger (Strauss). Berceuse (Gretchaninov). The Musical Box and Pianola (Antiga). Hungarian Czardas (Antiga). Hindu Song (Rimsky-Korsakov). Kleiner Wiener Marsch (Kreisler). Bunches of Roses (Chapi). Solveig's Song (Grieg). Donauwellen (Ivanovic). Chanson de la Esmeralda (de Mesquita). Piece (Fahrbach). Melody (Blanco).

PARIS (Radio-Paris), 11.30—Marthe Braquemond (Organ) from the from the Cavallée-Coll. Three Chorals (Bach). Noël (Daquin). Noël champenois (arr. Perillo). Noël languedocien (Guilmant). Variations on a Basque Carol (Dupré).

PRAGUE, 11.0—Chimes; News. 11.15—See Bratislava.

RADIO-NORMANDIE, 11.0—Christmas Carols. 11.15—Sacred Music. 11.30—Variety.

ROME, 11.0—Bible Reading. 11.30—Records.

SOTTENS, 11.0—Records. In the Interval at 11.30, News.

STOCKHOLM, 11.0—Service (contd. from 10.0). 11.45—Weather.

STRASBOURG, 11.0—Protestant Service (contd. from 10.45). 11.30—Roman Catholic Service in German.

STUTTGART, 11.0—See Hamburg.

TRIESTE, 11.0-11.15—Religious Address.

TURIN, 11.0—Bible Reading. 11.30—Records.

VIENNA, 11.0—"The Star of Bethlehem"—Cantata (Rheinberger) (contd. from 10.55). 11.40—The Tautenhayn Quartet, from the Exhibition Studio. Pompadour Gavotte. "Der Marquis von Rivoli" (Roth). Song, "Das Schwabennest" (Granichstaedten). Song, "Musik im Mai" (Berte). Waltz, "Der Lebemann" (Grünfeld). Polka, "Cagliostro in Wien" (Strauss). Folk Song, "Congress Dances" (Lafite). Song, "Der süsse Kavaliar" (Fall). Marching Song, "Madame Pompadour" (Fall). Songs, "Die sieben Schwaben" (Millöcker). "Das verwunschene Schloss" (Millöcker). Lagunen-Walzer (Strauss). March, "Der Teufel auf Erden" (Suppé).

WARSAW, 11.0—Fanfare; Weather. 11.5—Theatre Notes. 11.15—Philharmonic Orchestra and Soloists, from the Philharmonie.

## 12 noon

BELGRADE, 12.0—News. 12.15—Songs. 12.40—Press Review.

BERLIN, 12.0—Wilhelm Ehlers interviews a Parrot (contd. from 11.55). 12.5—See Hamburg.

BEROMÜNSTER, 12.0—Popular Music (contd. from 11.40). 12.30—Provincial Programme.

BRATISLAVA, 12.0—Orchestra (contd. from 11.15). 12.30—For Farmers.

BRESLAU, 12.0—See 11.15 Königsberg.

BRUSSELS (No. 1), 12.0—Radio Orchestra and Soloists. Conductor:



Beethoven, whose "Missa Solennis" forms the programme of the Concertgebouw Concert at Amsterdam this evening, with Mengelberg conducting. It is to be broadcast by Hilversum from 7.55-9.45 p.m.

André. Overture, "Masaniello" (Auber). Selection, "Manon Lescaut" (Puccini). Four Violins: Papillons (Meister). Selection, "The Miracle" (Humperdinck). Two Caprices (Paganini-André). Suite provençale (Jongen). In the Interval at 12.30 Monologues.

BRUSSELS (No. 2), 12.0—John Rutten Orchestra, from the Torenkelder Brasserie, Antwerp.

BUCHAREST, 12.0—Light Music (contd. from 11.50). 12.15—News. 12.40—Records.

BUDAPEST, 12.0—Franz Schmidt Concert (contd. from 11.30). 12.50—Records.

COLOGNE, 12.0—Greetings. 12.5—Records.

DEUTSCHLANDSENDER, 12.0—See 11.15 Königsberg.

FRANKFURT, 12.0—"Christmas at Home"—Reminiscences of a Worker. 12.15—See 12.5 Hamburg.

HAMBURG, 12.5—Barnabas von Gezy Orchestra.

HILVERSUM, 12.0—Talk. 12.10—Aeolian Orchestra. Conductor: Gerhartz.

HUIZEN, 12.0—Orchestra (contd. from 11.55). 12.40—Talk for Tourists.

JUAN-LES-PINS (Radio Côte d'Azur), 12.15—Concert.

KALUNDBORG, 12.0—Light Music (contd. from 11.30).

KÖNIGSBERG, 12.0—Orchestra (contd. from 11.15).

LEIPZIG, 12.0—Station Orchestra. Conductor: Blumer. Overture, "König Drosselbart" (Hummel). Selection, "The Miracle" (Humperdinck). Introduction to Act III, "Cinderella" (Strauss). Waltz, "The Arabian Nights" (Strauss). Three Pieces, "The Devil's Grandmother" (Nedbal). Gallop (Eilenberg).

MONTE CENERI, 12.0—Orchestra (contd. from 11.30). 12.25—Guessing Competition. 12.30—Record: Italian Operetta Music.

MUNICH, 12.10—See 11.15 Königsberg.

OSLO, 12.0—Mendelssohn Concert. Soloist: Solem (Organ). Organ Sonata in C minor. Psalms.

PARIS (Poste Parisien), 12.5—Records. 12.15—Records: Sound Film Music. 12.45—News. 12.50—Records.

PARIS (PTT), 12.0—Locatelli Orchestra. Russian Rhapsody (Glazunov). Sérénade florentine (Godard). Waltz (Strauss). Selection, "Le carnaval de Venise" (Thomas). Serenata morisca (Chapi). Chanson géorgienne (Rachmaninov). Révêrie du Soir (Saint-Saëns). Two

Italian Songs (Volpatti). German Dances (Schubert). Suite, En Bretagne (Rhené-Baton).

PARIS (Radio-Paris), 12.0—Religious Address. 12.20—Sacred Music on Records. 12.30—Bilboquet Programme. 12.45—Records.

PRAGUE, 12.0—See 11.15—Bratislava. 12.30—For Farmers.

RADIO-NORMANDIE, 12.0—Dramatic Programme. 12.40—Press Review. 12.45—Variety Concert.

REYKJAVIK, 12.0—Service.

ROME, 12.0—Time; News. 12.10—See Turin. 12.30—Records.

SOTTENS, 12.0—Records.

STRASBOURG, 12.0—News: Records. 12.15—Station Orchestra. Conductor: De Villers. Gustave Simon (Songs). Overture, "L'épave villageoise" (Grétry). Aria, "Le sylvain" (Grétry). Ballet Suite (Grétry-Mottl). Aria, "Les deux avarés" (Grétry). Orchestral Suite No. 1 (Guiraud).

STUTTGART, 12.0—Topical Programme. 12.15—See 12.5 Hamburg.

TOULOUSE (Radio-Toulouse), 12.0—Popular Songs; Light Music. 12.15—Opera Arias. 12.30—Roman Catholic Service. 12.45—Orchestra.

TURIN, 12.0—Time; News; Records. 12.10—Request Records. 12.40—Records.

VIENNA, 12.0—The Tautenhayn Quartet (contd. from 11.40). 12.40—Records of the "Comedy Harmonists."

WARSAW, 12.0—Talk. 12.15—Philharmonic Orchestra (contd. from 11.15).

## 1 p.m.

ATHLONE, 1.0—Records.

BARCELONA, 1.0—Records. 1.30—Theatre Notes; Amusement Guide; Records.

BELGRADE, 1.0—Records.

BERLIN, 1.0—Sports Notes. 1.15—Heinrich Steiner Pianoforte Recital by the Composer. Episode. Rondo.

BEROMÜNSTER, 1.0—Provincial Programme (contd. from 12.30).

BRATISLAVA, 1.15—Water-Level.

BRESLAU, 1.0—News. 1.10—For Women. 1.30—Greetings. 1.35—Christmas Cabaret on Records.

BRUSSELS (No. 1), 1.0—News. 1.10—Records.

BRUSSELS (No. 2), 1.0—News. 1.10—Orchestra. Conductor: Douliéz. Extracts, American Suite (Porret). Extracts, "La maison des poupées" (Engleman). Suite d'orchestre (Flament). Bruissement sous bois (Razigade). Gallop (Strauss). Achtung! Achtung! (Dostal).

COLOGNE, 1.0—Station Chamber Quintet. Baldomero Zapater (Guitar). Kiss Waltz (Arditi). Pieces (Schöneck): (a) Erwartung, (b) Entsaugung. Songs: (a) Wie reiten, denn die Herrenchen, (b) Unk, unk unk, (c) Marienwürmchen, setze dich. Die Bajadere (Lincke). Matinata (Leoncavallo). Songs: (a) Könt ihr nicht die sieben Sprung (b) Auf dem Berge Sinai, (c) Gutenacht-Liedchen. Die Spieluhr (Lindsay-Thiemer). Czardas (Michiels).

DEUTSCHLANDSENDER, 1.0—"A peep through the Keyhole"—Sequence for Children (Wolffmann). 1.45—Reading (Gunzinger).

FRANKFURT, 1.0—See Stuttgart.

HAMBURG, 1.0—For Children.

HILVERSUM, 1.0—Orchestra (contd. from 12.10). 1.10—New Records. 1.40—Book Talk.

HUIZEN, 1.0—K.R.O. Orchestra. Conductor: Gerritsen. La Feria (Lacôme). Lolita (Buzzi-Peccia). Selection, "Les Saltimbanques" (Ganne). A Day in Seville (Waldteufel). Selection, "The Gipsy Baron" (Strauss). 1.50—Talk by Anton van Duinkerken.

JUAN-LES-PINS (Radio Côte d'Azur), 1.0—News. 1.15—Cigány Music.

KALUNDBORG, 1.0—Records. 1.40—Christmas Music. Radio Chamber Orchestra and Members of the State Broadcasting Choir. Conductor: Mahler. Ingeborg Steffensen (Contralto), Madsen (Tenor) and Leicht (Bass). Part I "Das neugeborene Kindelein"—Cantata (Buxtehude). Part II, Christmas Oratorio (Bach). "Uns ist ein Kind geboren"—Cantata (Bach).

KÖNIGSBERG, 1.0—Chess Lesson. 1.30—Book Review. 1.45—Records.

LEIPZIG, 1.0—Weather; Time. 1.5—Records. 1.35—Talk: Christmas Customs.

MADRID (EAJ), 1.0—Light Music; Talk. 1.30—Sextet.

MONTE CENERI, 1.0—Waltzes, Marches and Polkas. Andriollo (Accordion).

MUNICH, 1.0—Announcements. 1.10—Dialogue: Christmas. 1.30—Talk with Records: Albert Lortzing.

PARIS (Poste-Parisien), 1.0-1.20—Records. 1.30—Concert.

PARIS (PTT), 1.0—News. 1.15—Report on the Grenoble-Nice Motor Race from Cannes. 1.30—Dramatic Programme "Les uns chez les autres"—One-Act Play (Giffery). "Théodore cherche des allumettes"—Play (Courtelme). "La peur des coups"—Play (Courtelme).

PARIS (Radio-Paris), 1.0—Victor Pascal's Orchestra. A Dream (Luciani). Fox Trot, Vive la France (Dubin). Come, Gipsy (Kálfán). Los banderillos (Volpatti). Die Forelle (Schubert). Piece (Schönberger). Melody (Heymann). Selection, "La Mascotte" (Audran). Piece (Sousa). Hungarian Dance (Brahms). Melody (Heymann). Aubade d'amour (Monti). Liebeslied (Schubert). Russian Patrol (Stones).

PRAGUE, 1.0—For Farmers. 1.15—1.25—Legal Talk.

ROME, 1.0—Records.

STRASBOURG, 1.0—News. 1.15—Orchestra. Conductor: De Villers. Symphonic Poem, Rédemption (Franck). Pastorale (Franck). Pieces (d'Indy): (a) Lied maritime, (b) Waltz and Serenade, (c) Sarabande and Minuet.

STUTTGART, 1.0—"Punch as the Devil"—Play for Children.

TOULOUSE (Radio-Toulouse), 1.0—Songs. 1.15—Sound Film Songs. 1.30—Opera Music. Prelude, "Cavalleria rusticana" (Mascagni). Carillon, "L'Arlesienne" (Bizet). Overture, "Manon" (Massenet). Overture, "La Traviata" (Verdi). 1.45—Protestant Service.

TURIN, 1.0—Records.

VIENNA, 1.50—News.

WARSAW, 1.0—Records; Light Music.



SUNDAY Dec. 23

2 p.m.

ATHLONE, 2.0—Records.  
 BARCELONA, 2.0—Film, Theatre and Music Notes.  
 BELGRADE, 2.0—Records. 2.30—Talk.  
 BERLIN, 2.0—"Das grosse Licht"—Advent Play (Keienburg-Leberecht). 2.45—Talk: Winter Work in the Forests.  
 DRESLAU, 2.0—Christmas Cabaret on Records. 2.30—"Wenn der alte Josef kimmt"—Play for Children, with Carols.  
 BUDAPEST, 2.0—Christmas Programme. 2.50—Male Voice Choir.  
 COLOGNE, 2.0—Talk: Lullabies. 2.20—Guessing Competition. 2.40—Talk: The Winter Solstice.  
 DEUTSCHLANDSENDER, 2.0—Reading (contd. from 1.45). 2.10—"The Christmas season in Oederbruch"—Sequence.  
 FRANKFURT, 2.0—"Christmas in the Village"—Two Radio Scenes. 2.30—See Munich.  
 HAMBURG, 2.0—Records. 2.35—A Christmas Legend (Scheffler).  
 HILVERSUM, 2.0—Book (Talk. 2.10)—Light Music. Pierre Palla (Organ), Topy Glerum (Songs), Eddy Meenk (Trumpet and Songs).  
 HUIZEN, 2.0—Talk (contd. from 1.50). 2.10—K.R.O. Orchestra. Conductor: Gerritsen. Overture, "Robespierre" (Litoff). Extract, "L'Arlesienne" (Bizet). Polonaise in E (Liszt). Rakoczy March (Liszt). 2.40—Missionary Programme. Papal March. Talk by the Rev. Father Dito, O.P. Records. Talk by Paul de Waart. Talk: The Mission. Records.  
 KALUNDBORG, 2.0—Christmas Music (contd. from 1.40). 2.40—Hvalso School Choir. Conductor: Kofod.  
 KÖNIGSBERG, 2.0—Records. 2.25—"Santa Claus visits Michel and Hanschen"—Play (Ilse Holler-Lutz).  
 LEIPZIG, 2.0—"Shock-headed Peter"—Humorous Songs for Voice and Pianoforte (Hoffmann-Schulze). 2.30—"Christmas" Sequence (Lieselotte Haase).  
 MADRID (EAJ7), 2.0—Amusement Guide; Light Music. 2.30—Sextet.  
 MOSCOW (No. 1), 2.15—For Children.  
 MUNICH, 2.0—Talk (contd. from 1.30). 2.30—Orchestra. Conductor: Böhm. Else Wolff (Soprano) and Sengelsteiner (Tenor). Overture, "The Magic Flute" (Mozart). Aria, "The Magic Flute" (Mozart). Märchen-Suite (Dressel). Air, "The Barber of Bagdad" (Cornelius). Fantasia on the Song, "So endet eine Liebe" (Kinder). Air, "Frederica" (Lehár). Potpourri (Hrubý). Air, "The Czarevitch" (Lehár). Waltz (Waldteufel). Flower Song, "Carmen" (Bizet). Overture, "The Merry Wives of Windsor" (Nicolaï).  
 OSLO, 2.30—NBC Christmas Programme from Chicago.  
 PARIS (Poste Parisien), 2.0-2.30—Records.  
 PARIS (PTT), 2.0—Dramatic Programme (contd. from 1.30). 2.30—Symphony Concert from the Salle des Fêtes.  
 PARIS (Radio-Paris), 2.0—Pascal's Orchestra (contd. from 1.0).  
 RADIO-NORMANDIE, 2.0—Running Commentary on the Stade Malherbe Cinnais v. the Havre Athletic Club Football Match.  
 SOTTENS, 2.0—Marches. Small Radio Lausanne Orchestra. Conductor: Moser. Paris-Belfort (Farigoul). Marche russe (Ganne). March, "The Count of Luxembourg" (Lehár). Sons of the Brave (Bidgood). 2.15—Village Music. 2.30—Song Records. 2.45—Two Overtures (Suppé): (a) "Die schöne Galathee," (b) "Banditenstreiche."  
 STOCKHOLM, 2.0—Light Music.  
 STRASBOURG, 2.0—Talk for Farmers in German. 2.30—See Paris (PTT).  
 STUTTGART, 2.0—Report: Christmas in a Forest Camp. 2.30—See Munich.  
 TOULOUSE (Radio-Toulouse), 2.0—Amusement Guide.  
 TURIN, 2.30—Records; Sports Notes.  
 VIENNA, 2.0—Talk: Christmas in the Country. 2.20—Book Review. 2.55—Military Band.  
 WARSAW, 2.0—For Farmers. 2.15—Records: Hawaiian Guitars. 2.25—For Farmers. 2.35—Records: Sketches by Walter. 2.45—For Farmers.

3 p.m.

BARCELONA, 3.0—For Invalids.  
 BELGRADE, 3.0—Military Band.  
 BERLIN, 3.0—Station Orchestra. Conductor: Steiner. Luise Gmeiner (Pianoforte). Allegretto, Tempo, Andante, and Allegro (Juon). Pianoforte and Orchestra: Variations on a Children's Song, "Morgen kommt der Weihnachtsmann" (Dohnányi). Selection, "Nussknacker und Mausekönig" (Schaub). Suite (d'Albert). Pianoforte Solos: Three Impromptus (Schubert). Three Pieces from the Christmas Oratorio (Wolffert).  
 BEROMÜNSTER, 3.0—Folk Songs. Huttwil Choir. Conductor: Rufer. Radio Orchestra. Conductor: Neppach. 3.50—Reading from "Hannanum" (Frieda Hauswirth).  
 BRATISLAVA, 3.45—Reading.  
 BRESLAU, 3.0—See Hamburg.  
 BRNO, 3.45—"For the President"—Play (Prucha). Music by Vácha.  
 BUCHAREST, 3.0—For Peasants.  
 BUDAPEST, 3.0—Male Voice Choir. 3.45—Talk.  
 COLOGNE, 3.0—See Königsberg.  
 DEUTSCHLANDSENDER, 3.0—See Königsberg.  
 FRANKFURT, 3.0—See 2.30 Munich.  
 HAMBURG, 3.0—Stettin Concert Orchestra. Conductor: Plato. Franz Koblitz (Tenor) and Herbert Hartmann (Cello). Overture, "Euryanthe" (Weber). "Cello: Andante from the Concerto in A minor (Goltermann). Minuet from the Symphony in E flat (Mozart). Tenor Aria from "The Seasons" (Haydn). The Nutcracker Suite (Tchaikovsky). "Cello: Scherzo (van Goens). Chorus, "Rienzi" (Wagner). Tenor: Prayer from "Rienzi" (Wagner). Waltz, "Hansel and Gretel" (Schumann). "Cello: Träumerei (Humperdinck). Overture, Friedensfeier (Reinecke). Tenor Solo: Aria, "The Mastersingers" (Wagner) Scene, "Der Evangelinmann" (Kienzl). The Frog King (Klein).  
 HILVERSUM, 3.0—Light Music (contd. from 2.10). 3.10—A.V.R.O. Orchestra. Conductor: Treep. Overture, "Die schöne Galathee" (Suppé). Variations in the Style of Famous Composers on "Es kommt ein Vogel geflogen" (Ochs). Moonlight on the Aister (Fétras). Records. Selection, "A Kiss in Spring" (Kálmán).  
 HUIZEN, 3.0—Missionary Programme (contd. from 2.40). 3.40—Religious Address. 3.55—Record.  
 KALUNDBORG, 3.0—Petersen Dance Band, from the Wivex.  
 KÖNIGSBERG, 3.0—Small Station Orchestra. Conductor: Wilken. Wiener Jubel-Ouverture (Suppé). Ballet Music, "Ritter Pasman" (Strauss). Raketten-Walzer (Mattei). Schwarzwälder Spieluhr (Richter). Du sollst der Kaiser meiner Seele sein (Stolz). Münchener Kindl (Kozak). Tanzausich (Schmalstich). Der Eremit (Schmalstich). Czardas (Michiels). Selection, "Das Fürstenkind" (Lehár). Two Gipsy Dances (Millocker). March, "Das verwunschene Schloss" (Heidingsfeld).  
 LAHTI, 3.0—Records.  
 LEIPZIG, 3.0—Christmas Concert-Station Orchestra. Conductor: Hilmar Weber. Ladies' and Children's Choirs. Conductor: Losse. Eily Opitz, Flory Jakohi, and Hans Müller.  
 MADRID (EAJ7), 3.0—Light Music. 3.30—Sextet.  
 MONTE CENERI, 3.30—Santa Cecilia Choir, from Bellinona. Conductor: Tosi. La fede (Rossini). Gesù in sogno (Paribeni). Tuscan Folk Song, Sole, sole, vieni! (Paribeni). Canzonetta per il santo Natale (Grifoni). Hymn to Night (Beethoven). Song (Rubinstein). Serenata (Sacchi). La partenza del soldato (Confalonieri).  
 MORAVSKÁ-OSTRAVA, 3.0—Station Orchestra. Conductor: Plichta. Selection, "The Bartered Bride" (Smetana). Orchestral Suite (Chaminado). Selection, "The Collier's Son" (Konvalinka). 3.45—Talk: The Christmas Folklore of Moravia.  
 MOSCOW (No. 1), 3.0—News. 3.30—Communist Party Programme.  
 MUNICH, 3.0—Orchestra (contd. from 2.30).  
 OSLO, 3.0—Reading. 3.20—Violin Concerto in A minor (Glazunov), on Records. 3.40—Records.  
 PARIS (PTT), 3.0—Symphony Concert (contd. from 2.30).  
 PARIS (Radio-Paris), 3.0—Conservatoire Concert. Conductor: Gaubert. Lili Laskine (Flute), Solange Delmas (Songs), and Marcel Moysse (Harp). Serenade (Mozart). Concerto for

Flute and Harp (Mozart). Songs (Mozart). Le tombeau de Couperin (Ravel). Daphnis et Chloé (Ravel).  
 PRAGUE, 3.0—See Moravská-Ostrava 3.45—Talk: The First Christmas Tree in Prague.  
 ROME, 3.15—Talk. 3.30—Sports Notes.  
 SOTTENS, 3.0—Records. 3.15—Two Waltzes (Naef). 3.30—Orchestra. 3.40—Jazz Music. 3.50—Lausanne Orphéon Choir. Conductor: Schmidli. Albert Perregaux (Baritone). Song (Hasler). May Song (Morley). Songs. Pastourelle (Pantillon). Jeune forgeron (Andrae). Songs. Voyage de découverte (Dénéreaz). Lilas blanc (Dénéreaz).  
 STOCKHOLM, 3.0—Reading. 3.30 Scandinavian Music. Sanger (Songs) and Märtha Ohlson (Pianoforte).  
 STRASBOURG, 3.0—See 2.30 Paris (PTT).  
 STUTTGART, 3.0—See 2.30 Munich.  
 VIENNA, 3.0—Military Band.  
 WARSAW, 3.0—Readings. 3.20—Mikuszewski (Violin). 3.45—For Children.

4 p.m.

BELGRADE, 4.0—Military Band.  
 BERLIN, 4.0—Sports Report. 4.15—Orchestra (contd. from 3.0).  
 BEROMÜNSTER, 4.0—Reading (contd. from 3.50). 4.20—Four Christmas Carols (Stein), by Maria Haas (Mezzo-Soprano) and Hertha Piel (Pianoforte). 4.35—Reading in Dialect. 4.45—Records for Children.  
 BRATISLAVA, 4.0—Talk: Christmas Customs.  
 BRESLAU, 4.0—See 3.0 Hamburg.  
 BRNO, 4.0—"For the President"—Play (contd. from 3.45). 4.45—Records. 4.55—German. Transmission: Talk: Christmas; "The Night before Christmas Eve"—Play (Hoting).  
 BUCHAREST, 4.0—Marcu Orchestra.  
 BUDAPEST, 4.0—Talk. 4.20—Trombone Recital.  
 COLOGNE, 4.0—See Königsberg. 4.30—"Sing, my People!"—Musical Sequence, with Poems by Anacker (Wintermeier). Paul van 't Oever (Songs). The Composer at the Pianoforte.  
 DEUTSCHLANDSENDER, 4.0—See Königsberg.  
 FRANKFURT, 4.0—See Stuttgart. 4.30—See Munich.  
 HAMBURG, 4.0—Orchestra (contd. from 3.0).  
 HILVERSUM, 4.0—Orchestra (contd. from 3.10). 4.10—Records. 4.25—Sports Results; Records. 4.40—Records.  
 HUIZEN, 4.0—Records. 4.10—For Invalids. 4.40—Protestant Service from Zaandam.  
 KALUNDBORG, 4.0—Service, from Christiansborg Castle Church.  
 KÖNIGSBERG, 4.0—Sports Notes. 4.10—Orchestra (contd. from 3.0).  
 LAHTI, 4.0—Records.  
 LEIPZIG, 4.0—Concert (contd. from 3.0).  
 MONTE CENERI, 4.0—Talk: Christmas Customs in the Ticino. 4.15—Records: Christmas Canticles. 4.30—Orchestra, from the Kursaal, Lugano. Overture, "Der Schauspiel-direktor" (Mozart). Two Dances. Ideale (Kern). Two Dances. Selection, "A Waltz Dream" (O. Strauss). Two Dances.  
 MORAVSKÁ-OSTRAVA, 4.0—"Moravian Folklore"—Sketch (Strnadl). 4.15—Brass Band. Conductor: Malik. In an Interval: Accordion Solos. 4.55—German Transmission: "Merry Christmas"—Play (Klar), by members of the German Theatre.  
 MOSCOW (No. 1), 4.0—Communist Party Programme.  
 MUNICH, 4.0—Orchestra (contd. from 2.30). 4.10—Talk for Children: Santa Claus. 4.30—"Moosbart und Sternkind"—Fairy Play (Engasser).  
 OSLO, 4.0—Records. 4.20—Talk. 4.50—Service.  
 PARIS (Poste Parisien), 4.30—Records.  
 PARIS (PTT), 4.0—Symphony Concert (contd. from 2.30).  
 PARIS (Radio-Paris), 4.0—Conservatoire Concert (contd. from 3.0).  
 PRAGUE, 4.0—Talk (contd. from 3.45). 4.30—Records. 4.40—

5 p.m.

BARCELONA, 5.0—Records.  
 BERLIN, 5.0—Chimes and Service from Potsdam Garrison Church. 5.20—Christmas Cantata (Knab). Station Orchestra, Mixed Choir and Soloists. Conductor: Weigel.  
 BEROMÜNSTER, 5.0—Talk with Gramophone Illustrations: Twelfth Night.  
 BRATISLAVA, 5.0—Hungarian Transmission: Christmas Customs; Sports Notes.  
 BRESLAU, 5.0—Report: Christmas Shopping. 5.30—Chopin Recital. Hans Johow (Pianoforte). Tarantella. Berceuse. Waltz in C minor. Waltz in A flat. Ballad in A flat.  
 BRNO, 5.0—German Transmission (contd. from 4.55).  
 BRUSSELS (No. 1), 5.0—Dance Music by the Ludo Langlois Band from the Century Hotel, Antwerp. In the interval, Football Results.  
 BRUSSELS (No. 2), 5.0—Symphony Orchestra. Kalkman (Viola). Overture, "The Merry Wives of Windsor" (Nicolaï). Selection, "Madame Butterfly" (Puccini). Meditation (Gounod). Extracts, "The Damnation of Faust" (Berlioz). Fantasia concertante (Rogister). Suite dans le style ancien (Thürmer). In the interval, Sports Notes.  
 BUCHAREST, 5.0—News. 5.15—Marcu Orchestra.  
 BUDAPEST, 5.0—Talk. 5.35—Harp Recital.  
 COLOGNE, 5.0—Musical Sequence (contd. from 4.30). 5.5—Talk: Marienthal Monastery. 5.30—Symphony No. 3 in D minor (Bruckner) by the Berlin Philharmonic Orchestra. Conductor: Hermann Abendroth (on Records).  
 DEUTSCHLANDSENDER, 5.0—Advent Programme. 5.40—"Parade of the Tin Soldiers"—Sequence (Eberhard Keineberg), with Music by Sobanski.  
 FRANKFURT, 5.0—See 4.30 Munich. 5.30—Records: Sacred Music and Songs (Beethoven, Mozart, Reger, Reichardt, Weber and Hugo Wolf).  
 HAMBURG, 5.0—Ludwig Holberg Programme for the 250th Anniversary of his Birth (on Records). Holberg Suite (Grieg). Talk: Ludwig Holberg. Address by the Danish Ambassador. 5.50—Eduard Nössler Concert. Conductor: The Composer. Bremen Cathedral Mixed Choir, and Instrumental Quartet. Friedel Huhn (Contralto). Fritz Iden (Tenor) and Erna Nössler-Twistemeyer (Pianoforte).  
 HILVERSUM, 5.0—Records. 5.40—Football Talk.  
 HUIZEN, 5.0—Protestant Service (contd. from 4.40).  
 KALUNDBORG, 5.0—Service (contd. from 4.0). 5.20—Talk: Christmas in Cuba. 5.50—Weather.  
 KÖNIGSBERG, 5.0—Review of Christmas Annuals. 5.20—"German Advent"—Radio Poem (Menzel), with Music by Henning. 5.45—Report from a Christmas Fair.  
 LAHTI, 5.0—Weather. 5.10—Talk. 5.40—Melartin Music. Helmi Liukkonen (Songs), Jouko Kunnas (Pianoforte) and Unto Kunnas (Cello).  
 LEIPZIG, 5.0—Records.  
 MADRID (EAJ7), 5.0—Light Music.  
 MONTE CENERI, 5.0—Records: Christmas Bells. 5.15—Christmas Presents—Musical Programme. Elisabetta Odone (Songs); Corinna Piazza (Pianoforte). Four traditional Songs (Odone). Suite, "The Christmas Tree" (Rebikov). Christ-

mas Songs: (a) Christmas (Holmes), (b) Chant de Noël (Hahn) (c) Vieille chanson de Noël (Pierne), (d) Maria Wiegenlied (Reger).  
 MORAVSKÁ-OSTRAVA, 5.0—Play (contd. from 4.55).  
 MOSCOW (No. 1), 5.30—Symphony Orchestra. Conductor: Fried. Barsaova (Songs) and Leschinsky (Violin).  
 MUNICH, 5.0—Moosbart und Sternkind (Engasser) (contd. from 4.30). 5.30—Talk.  
 OSLO, 5.0—Service (contd. from 4.50).  
 PARIS (PTT), 5.0—Pasdeloup Symphony Concert.  
 PARIS (Radio-Paris), 5.0—Variety Programme for Young People. Part I—Light Music. Part II—"La leçon d'astronomie"—Comedy in One Act (Blanc-Péridier).  
 PRAGUE, 5.0—German Transmission (contd. from 4.55); News.  
 RADIO-NORMANDIE, 5.0—Records 5.30—Variety.  
 ROME, 5.0—Mandoline Quartet. 5.15—Weather.  
 SOTTENS, 5.0—Records. 5.30—Roman Catholic Address.  
 STOCKHOLM, 5.0—Records. 5.30—Lecture Recital: Swedish Christmas Hymns.  
 STRASBOURG, 5.0—See Paris (PTT).  
 STUTTGART, 5.0—See 4.30 Munich. 5.30—A Visit to an Animal Home.  
 TURIN, 5.0—Dance Music. 5.15—Weather. 5.20—Sports Notes.  
 VIENNA, 5.5—Talk with Records: The Christmas Concerto (Corelli). 5.35—Reading for Boys (Felmayer).  
 WARSAW, 5.0—Extract, "Crito, the Tragedy of Socrates" (Plato). 5.45—Talk.

6 p.m.

ALGIERS, 6.0—Strauss Records. 6.15—Tramel Records. 6.30—Moysse (Flute). 6.45—Lemercier Records.  
 BARCELONA, 6.0—Opera, from the Gran Teatro del Liceo.  
 BELGRADE, 6.15—News. 6.30—National Programme.  
 BERLIN, 6.0—Christmas Cantata (contd. from 5.20). 6.10—"Die Nacht der Tiere"—Play (Billinger). 6.40—Sports Report.  
 BEROMÜNSTER, 6.0—Time; Weather; Sports Results. 6.10—Reading in Dialect. 6.40—Christmas Records. 6.50—Introductory Talk to the 7.0 Transmission.  
 BRATISLAVA, 6.5—Folklore.  
 BRESLAU, 6.0—Talk: Men around Pilsudski. 6.25—"Petermann makes Peace"—Christmas Play (Steguweit).  
 BRNO, 6.5—Records. 6.25—Carols by Sindler. 6.30—Records.  
 BRUSSELS (No. 1), 6.0—Opera Arias, on Records: "Manon" (Massenet). "Lohengrin" (Wagner). "Ariane et Barbe-bleue" (Dukas). 6.15—Orchestra. Conductor: Douliez. Auber Potpourri (Urbach). Hungarian Dance, Hej! Haj! (Drda). British Song, and Dance Potpourri, Britelodia (Humphries). Reverie and Serenade for Violin and Orchestra (Vandersmissen). Joseph Strauss Waltz Potpourri (Fahrbach). Marechiaro (Tosti). En badinant (d'Ambrósio). Potpourri of Negro Spirituals (Foulds).  
 BRUSSELS (No. 2), 6.0—Chamber Music. The Brussels Quartet. Quartet in D (Mozart). Quartet in E minor (Beethoven). Two Serenades (Jongen): (a) Sérénade tendre, (b) Sérénade dramatique.  
 BUCHAREST, 6.0—Talk: Christmas. 6.20—Records. 6.30—"Vicleimol" Legend.  
 BUDAPEST, 6.0—Harp Recital. 6.15—Radio Play (Bosin).  
 COLOGNE, 6.0—Symphony (Bruckner) (contd. from 5.30). 6.45—Sports Report.  
 DEUTSCHLANDSENDER, 6.0—"Parade of the Tin Soldiers"—Sequence (contd. from 5.40). 6.40—Sports Notes.  
 FRANKFURT, 6.0—"A Land without Tears"—Sequence (Schneck). 6.45—Talk: Christmas in the Mine.  
 HAMBURG, 6.0—Eduard Nössler Concert (contd. from 5.50). 6.20—"Hiltes Weihnachtsevangelium"—Story for Children (Wagener). 6.35—Sports Talk. 6.45—Sports Report. 6.55—Weather.  
 HILVERSUM, 6.0—V.A.R.A. Orchestra. Conductor: de Groot. Overture, "Poet and Peasant" (Suppé). Waltz (Nedbal). Romance

## SUNDAY Dec. 23

## 6 p.m. (contd.)

in F minor (Tchaikovsky). Hungarian Dances (Brahms). Norwegian Rhapsody (Svendens). 6.40—Song Recital by Marchand.

**HUIZEN**, 6.0—Protestant Service (contd. from 4.40). 6.20 (approx.)—Jan Zwart (Organ).

**KALUNDBORG**, 6.0—News; Sports Results. 6.30—Talk: Our Neighbour in the West—Great Britain.

**KÖNIGSBERG**, 6.0—Report (contd. from 5.45). 6.5—News. 6.15—Christmas Music, from the Lutheran Church, Insterburg. The Oratorio Society. Conductor: Gerhard Wiemer. Werner Buschnakowski (Organ). Prelude and Fugue in E flat (Bach). Choir: (a) Das Reis aus der Wurzel Jesse (Prätorius). (b) Das Christkind zieht zu Schiff ein (Weinreis). (c) Christkindlein Wiegenlied (Bach-Fuchs). (d) Christkindleins Bergfah (Riedel). Fantasia and Fugue, Wie schön leuchtet der Morgenstern (Regner).

**LAHTI**, 6.0—Melartin Music (contd. from 5.40). 6.40—Talk.

**LEIPZIG**, 6.0—Records: Christmas Customs and Carols of the Nations. 6.35—Humorous Reading.

**MADRID (EAJ7)**, 6.0—Literary and Art Review. 6.15 (approx.)—Sextet. Paso doble (Keppeler-Lais). Adagio, Pathetic Sonata (Beethoven). Selection, "La morenita" (Giménez). "Los papiros" (Luna). Andalusian Dance (Granados). March (Alonso).

**MONTE CENERI**, 6.0—Sports Notes. 6.5—Records: Dance Music and Songs. 6.45—News. 6.55—Sports Results.

**MORAVSKÁ-OSTRAVA**, 6.5—To be announced.

**MOSCOW (No. 1)**, 6.0—Symphony Orchestra (contd. from 5.30).

**MÜNICH**, 6.0—Pianoforte Sonata in A flat (Beethoven), by Merker. 6.30—Weather; Sports Report. 6.40—Report: Christmas in a crèche (on Records).

**OSLO**, 6.0—Service (contd. from 4.50). 6.15—News. 6.30—Time. 6.31—Review of Foreign Politics.

**PARIS (PTT)**, 6.0—Pasedeloup Symphony Concert (contd. from 5.0). 6.30—News.

**PARIS (Radio-Paris)**, 6.0—Cambon (Songs). Les semailles (Goublier). La charité (Faure). Les bies d'or (Doria). Le vallon (Gounod). 6.20 (approx.)—"L'Amulet"—Comedy (Leclos). 6.40 (approx.)—Song Recital, by Mme. Dominau-Blanc. Nanny (Paladilhe). Le fille aux cheveux de lin (Paladilhe). L'île heureuse (Chabrier). Pastourelle (Rabaud).

**PRAGUE**, 6.0—News. 6.5—Records. 6.15—Reading. 6.30—Records. 6.40—"Fidlovacka"—Opera (Skroup). Station Orchestra. Conductor: Hurt.

**RADIO-NORMANDIE**, 6.0—Records: Dance Music by Jack Payne and his Orchestra. 6.30—Godfrey (Violin). 6.45—Records.

**ROME**, 6.0—Announcements.

**SOTTENS**, 6.0—Mussorgsky Music. 6.30—Sports Notes. 6.59—Weather.

**STOCKHOLM**, 6.0—Lecture Recital (contd. from 5.30). 6.30—Military Band. Conductor: Widner. Piece (Widner). Scandinavian Rhapsody (Peterson-Berger). Japanese Lantern Dance (Yoshitomo). Selection, "La Traviata" (Verdi). Ballet russe (Luigini). The Fairest of the Fair (Sousa). Nigger's Dream (Myddleton).

**STRASBOURG**, 6.0—See 5.0 Paris (PTT). 6.45—Sports Talk.

**STUTTGART**, 6.0—"Christmas in the Mountains"—Variety Programme. 6.45—Sports Report.

**TOULOUSE (Radio-Toulouse)**, 6.0—News. 6.15—Cinema Organ. 6.30—Operetta Songs. 6.45—Viennese Orchestra.

**TURIN**, 6.30—Sports Results; Dopolavoro Notes: Records.

**VIENNA**, 6.0—Announcements. 6.10—"Christmas in an Alpine Village"—Sequence of Christmas Folk Music, with Introductory Talk. Trio: Es sungen drei Engel. Lied von der Reise nach Bethlehem. Hirtenspiel aus Tirol. Quartets: (a) Es ist sin Ros entsprungen. (b) Es blühen die Maie, (c) Steffi, du Schlafbaum. Die Anbetung der Hirten. 6.55—Motto.

**WARSAW**, 6.0—Station Orchestra. Conductor: Nawrot. Staniewicz

(Pianoforte). March, "The Prophet" (Meyerbeer). Hungarian Dance (Brahms). Pianoforte: (a) La Poule et le tambourin (Rameau). (b) Danse lente (Franck). (c) Wiegenlied (Schumann). Kazachok (Dargomizsky). Pianoforte: (a) Romance (Schumann). (b) Three Waltzes (Brahms). (c) Humoresque (Rachmaninoff). Piedmontese Dance (Sinigaglia). 6.45—Programme Announcements. 6.50—Topical Talk.

## 7 p.m.

**ALGIERS**, 7.0—Records. 7.15—Operetta Songs. 7.55—News.

**BARCELONA**, 7.0—Opera Relay (contd. from 6.0).

**BELGRADE**, 7.0—Debussy Pianoforte Recital. 7.40—Announcements. 7.50—Records.

**BERLIN**, 7.0—"Hänsel and Gretel"—Fairy Opera (Humperdinck), from the Opera House, Charlottenburg. Opera House Orchestra. Conductor: Rother. Choir. Conductor: Lüddecke.

**BEROMÜNSTER**, 7.0—"Vakoula the Smith"—Opera in Three Acts (Tchaikovsky). In the interval at 7.50: News.

**BORDEAUX-LAFAYETTE**, 7.45—Sports Notes.

**BRESLAU**, 7.0—"Christmas Oratorio" (Bach). Station Choir. Orchestra, Soloists. Conductor: Prade.

**BRUSSELS (No. 1)**, 7.0—Orchestra (contd. from 6.15). 7.15—Religious Address: The Hope of Eternity. 7.30—Music Review by Paul Gilson; Announcements.

**BRUSSELS (No. 2)**, 7.0—Chamber Music (contd. from 6.0). 7.15—Roman Catholic Address. 7.30—Music Review.

**BUCHAREST**, 7.0—"Vicleimol"—Legend (contd. from 6.30). 7.30—Romanian Music. Carmen Choir. Station Orchestra.

**BUDAPEST**, 7.0—Radio Play (contd. from 6.15). 7.10—Sports Notes. 7.30—See Vienna.

**COLOGNE**, 7.0—Dances and Songs of the Good Old Days. Small Station Orchestra. Conductor: Kühn. Die Frohe Sänger. German Dance (Schubert). Minuet (Boccherini). Songs: (a) Zum Tanze, da geht ein Mädlein, (b) Ich spiel euch eins auf. Styrian Dances (Lanner). Gavotte, Der Blumen Pracht (Klose). Songs: (a) Ständchen. (b) Das Huhn und der Karpfen. Mazurka, Vom Herzen zum Herzen (Kral). Gavotte (Czibulka). Songs: (a) Un i hab dir zu tief in die Augli' g'schaut, (b) Därf i's Dirndl lieben. Polka, Die Alpenpost (Eilenberg). Loin du bal (Theimer). "Theresen-Walzer (Faust). Die Frohe Sänger: (a) Schöne Mädchen, munt're Knaben. (b) Mei Mädle ist hübsch. Polka, Sänglerlust (Strauss). Champagner-Galopp (Lumbly).

**DEUTSCHLANDSENDER**, 7.0—"The Night of the Thousand Wishes"—Variety. Herbert Fröhlich Band, a Children's Choir, the Kosleksche Wind Band and Soloists. Conductor: Fricke.

**FRANKFURT**, 7.0—See Stuttgart. 7.50—See Munich.

**HAMBURG**, 7.0—Light Music and Dance Music. The Barnabas von Géczy Orchestra, the Station Male Voice Quartet, and Ladies' Trio.

**HILVERSUM**, 7.0—Orchestra (Conductor de Groot). Overture, "Masaniello" (Auber). Selection, "Naïfa" (Delibes). Selection, "Cavalleria rusticana" (Mascagni). Gavotte, "Mignon" (Thomas). Ballet Music, "Faust" (Gounod). 7.40—Time; News; Sports Results. 7.55—Missa Solennis (Beethoven), from the Concertgebouw, Amsterdam. Concertgebouw Choir and Orchestra. Conductor: Willem Mendelberg. Jo Vincent (Soprano), Suse Luger (Contralto), Louis v. Tulder (Tenor), Willem Ravelli (Bass).

**HUIZEN**, 7.0—Jan Zwart (Organ) (contd. from 6.20). 7.25—Football Results. 7.30—Talk by Joan Kat. 7.50—News. 7.55—K.R.O. Orchestra. Conductor: Gerritsen. The Washington Post (Sousa). Wiener Praterleben (Translateur). Offenbachiana (Conradi). Selection, "Cavalleria rusticana" (Mascagni).

**JUAN-LES-PINS (Radio Côte d'Azur)**, 7.15—Invitation to the Waltz (Weber); Film-Review. 7.30—Roman Catholic Address.

**KALUNDBORG**, 7.0—Chimes. 7.5—"The Hansen Family"—Sketch (Loher). 7.15—German Opera Music. Radio Orchestra. Conductor:

Mahler. Kirsten Flagstad (Songs). Overture, "Il Seraglio" (Mozart). Aria, "Der Freischütz" (Weber). Ballet, "Orpheus and Eurydice" (Gluck). Aria, "Fidelio" (Beethoven). Prelude, "Lohengrin" (Wagner). Elizabeth's Aria, "Tannhäuser" (Wagner). Overture, "Rienzi" (Wagner).

**KÖNIGSBERG**, 7.0—Advent Cantata (Agnes Miegel), Music by Besch. 7.45—Opera House Orchestra. Conductor: Seidler. Christia Kolessa (Cello). Overture, "Rübezahl" (Weber). "Cello Concerto in D (Boccherini). Hirtenmusik (Niemand). Ballet Suite (Bortkiewicz). Swedish Dances (Graener).

**LAHTI**, 7.0—Popular Music, by the Radio Orchestra. Conductor: Linko. 7.45—News.

**LEIPZIG**, 7.0—"Christelfein"—Opera in Two Acts (Pfitzner). Leipzig Symphony Orchestra. Conductor: Weisbach.

**MADRID (EAJ7)**, 7.0—Dance Music, from the Hotel Ritz. In the interval: Film Review; Talk.

**MONTE CENERI**, 7.0—Bach Concert-Station Orchestra. Conductor: Leopoldo Casella. Bertoni and De Signori (Violins), Italiani (Flute), Herschel (Pianoforte). Suite for Strings. Concerto in D minor for Strings. Sonata in A for Flute and Pianoforte. Suite in D for Strings.

**MÜNICH**, 7.0—See Stuttgart. 7.50—"Das Jesuskind in Flandern"—Christmas Cantata after Timmerman (Karl Marx).

**OSLO**, 7.0—Station Orchestra. Conductor: Kramm. Triumphant March, "Aida" (Verdi). Overture, "Euryanthe" (Weber). Suppé Potpourri (Morena). Berceuse de Jocelyn (Godard). Polish Dance (Wienawsky). By the Blue Hawaiian Waters (Ketelbey). Potpourri, Von Wien durch die Welt (Hrudy).

**PARIS (Poste Parisien)**, 7.0—News. 7.10—Sports Notes. 7.20—Records: Orchestras. 7.30—Amusement Guide. 7.35—Records: Violin and Flute (PTT). 7.45—Report on the Grenoble-Nice Motor Race from Digne.

**PARIS (Radio-Paris)**, 7.0—"On a volé le Père Noël" (Crozière), by Bilboquet and Company. In the interval: Punch and Judy Show. 7.30—Topical Talk.

**PRAGUE**, 7.0—"Fidlovacka"—Opera (contd. from 6.40).

**RADIO-NORMANDIE**, 7.0—Variety. 7.30—Concert.

**REYKJAVIK**, 7.45—For Children.

**ROME**, 7.30—Time; News; Records. 7.45—"L'Arlésienne"—Opera (Bizet).

**SOTTENS**, 7.0—Old Songs. Choir. Conductor: Pileur. 7.20—Report on the Opening of the Zermatt-Görnegratt Railway. 7.35—Radio-Susse Romande Orchestra. Conductor: Ansermet. Isabelle Nef (Harpischord). Petit Concert (Vuataz). Dances (Purcell). Harpischord Concerto (Bach). Gli uccelli (Respighi). Harpischord Concerto (Rieti). Sinfonietta (Larsen).

**STOCKHOLM**, 7.0—Military Band (contd. from 6.30). 7.30—"The Old People's Christmas Eve"—Play (Krag).

**STRASBOURG**, 7.0—For Children. 7.30—Announcements. 7.45—Records.

**STUTTGART**, 7.0—"Nicholas and Company"—Play with Music (Hofmeier). 7.50—See Munich.

**TOULOUSE (Radio-Toulouse)**, 7.0—Viennese Orchestra. 7.10—Sound Film. 7.15—Military Music. 7.30—News. 7.45—Light Music.

**TURIN**, 7.0—Announcements; Records. 7.30—Time; News; Records. 7.45—Gi-ta Gradova Concert.

**VIENNA**, 7.0—Sonata in E minor for Violin and Pianoforte (Pfitzner), by Christa Richter (Violin) and Schulhof (Pianoforte). 7.30—"Hoch vom Kahlenberg"—Radio Potpourri (arr. Riedinger), by a Mixed Choir, the Pepi Wichart Folk Music Quartet and the Vienna Symphony Orchestra. Conductor: Holzer. Lya Beyer (Soprano) and Borsos and Arnold (Tenors).

**WARSAW**, 7.0—Station Symphony Orchestra. Conductor: Oziminski. 7.45—News. 7.55—Talk: Work in Poland.

## 8 p.m.

**ALGIERS**, 8.0—Sports Notes. 8.15—Records. 8.25—News. 8.30—Station Orchestra. Ballet égyptien

(Luigini). Scènes pittoresques (Massenet). Melody (Saint-Saëns). March (Saint-Saëns). Schubert Potpourri (Foulds). Rondo (Beethoven) Selection, "Marouf" (Rabaud).

**ATHLONE**, 8.30—Time. 8.31—Station Orchestra.

**BARCELONA**, 8.0—Opera Relay (contd. from 6.0).

**BELGRADE**, 8.0—Play.

**BERLIN**, 8.0—"Hänsel and Gretel" (contd. from 7.0). 8.5—Light Music for Two Pianofortes. 8.20—"Hänsel and Gretel" (contd. from 7.0).

**BEROMÜNSTER**, 8.0—"Vakoula the Smith"—Opera (Tchaikovsky) (contd. from 7.0). In the interval at 8.45: Sports Report.

**BORDEAUX-LAFAYETTE**, 8.5—Records. 8.35—"Week-End"—Comedy (Coward).

**BRESLAU**, 8.0—Christmas Oratorio (Bach) (contd. from 7.0).

**BRUSSELS (No. 1)**, 8.0—Sacred Concert. Maurice Weynandt (Songs). (a) Alleluia (Handel), (b) Alleluia (Handel). Interlude from "Redemption" (Franck). Prologue, "The Beatitudes" (Franck). Carol (Blockx). Old Carols for Orchestra (Busser). Prelude, "L'enfant roi" (Bruneau). Songs: (a) Venez bergers, accourez tous, (b) Entre le boeuf et l'âne gris, (c) Nous sommes trois souverains princes, (d) Bonsoir voisine. Une veillée en Bresse (Pérlhou). Breton Rhapsody (Saint-Saëns). Religious Suite (Roels). Dance and Songs (Rousseau).

**BRUSSELS (No. 2)**, 8.0—Radio Orchestra. Conductor: André Béthune (Violin). Flemish Song Potpourri (Walpot). Potpourri of Walloon Airs (Wangermée). Three Hungarian Dances (Brahms). Spanish Dances (Sarasate). Four Slav Dances (Dvořák). 8.45—"The Matrimonial Bureau"—Sketch (Weisz).

**BUCHAREST**, 8.0—Romanian Music. Station Orchestra.

**BUDAPEST**, 8.0—See 7.30 Vienna.

**COLOGNE**, 8.0—Dances and Songs (contd. from 7.0). 8.15—"Christmas Eve on a North Sea Island"—Play (Lulu von Strauss-Thorney).

**DEUTSCHLANDSENDER**, 8.0—Variety (contd. from 7.0).

**FRANKFURT**, 8.0—See 7.50 Munich.

**HAMBURG**, 8.0—Light Music and Dance Music (contd. from 7.0).

**HILVERSUM**, 8.0—Missa solennis (Beethoven) (contd. from 7.55).

**HUIZEN**, 8.0—Orchestra (contd. from 7.55). 8.40—Records.

**JUAN-LES-PINS (Radio Côte d'Azur)**, 8.0—News. 8.5—Station Orchestra. Selection, "Il Seraglio" (Mozart). "Figaro" (Mozart). Intermezzo, "L'Amico Fritz" (Mascagni). Sketch. Songs.

**KALUNDBORG**, 8.5—Reading (Hans Andersen). 8.25—Extracts, "The Gipsy Baron"—Operetta (Strauss). Radio Orchestra. Conductor: Mahler.

**KÖNIGSBERG**, 8.0—Orchestra (contd. from 7.45).

**LAHTI**, 8.0—News in Swedish.

**LEIPZIG**, 8.0—"Christelfein"—Opera (Pfitzner) (contd. from 7.0).

**MADRID (EAJ7)**, 8.0—Dance Music (contd. from 7.0).

**MONTE CENERI**, 8.0—Talk: German Artists and the Ticino—A Visit to Dr. Frisch. 8.15—Mariotti Song Recital by the Composer, with the Station Orchestra. Selection, "White Horse Inn" (Stolz-Benatzky). Songs: (a) Se si potesse dir la verità (Mariotti-Neri), (b) Tango, O compagnola (Mariotti-Borella). Potpourri (Dostal). Songs: (a) Non so mentir (Mariotti-Borella), (b) Dimmi le tue parole (Mariotti-Martelli). (c) Ninita (Mariotti-Borella). Viennese Operetta Potpourri (Hrudy).

**MOSCOW (No. 1)**, 8.0—German Programme: (a) The December 1905 Insurrection, (b) Weekly Review 8.55—Chimes.

**MÜNICH**, 8.0—"Das Jesuskind in Flandern"—Christmas Play (contd. from 7.50).

**OSLO**, 8.0—Orchestra (contd. from 7.0). 8.10—Reading. 8.40—News.

**PARIS (Poste Parisien)**, 8.15—"Le Noël du contrebantier"—Play in One Act (Faremont-Allehaut).

**PARIS (PTT)**, 8.0—Records: Lecocq Music. Extracts, "La petite mariée", "Le coeuf et la main", "La fille de Madame Angot". 8.30—Variety. Georges Derveaux Jazz Band and Soloists. In the interval: Sketch.

**PARIS (Radio-Paris)**, 8.0—Light Music. Conductor: André Spadaro, Guy Berry, Amato, Caro Martel and Fanny Lancret (Songs).

Marche des petits matelots (Ganne). Spadaro in his Repertoire. Waltz. Le rossignol (Jullien). Songs: (a) Au fil de l'eau (Cambier), (b) Les oiseaux (Guillon), (c) Je m'attends plus rien (Caux), (d) Séparation (Cambier). Overture, "The Maid of Artois" (Balfé-Winter). Songs: (a) Console-moi (Soley), (b) O Magali (Alton), (c) Recordanza (Melfi). Piece for Violins: Die Biene (Schubert). Songs: (a) Nos dix-huit printemps (Leyel-Matis), (b) Premier desir (Dangry-Cambier), (c) Notre maison (François-Claret) (d) Vertige (Danury-Cambier). Selection, "La fille de Madame Angot" (Lecocq-Tavan). Songs. Petite Suite (Vlot). One-step, On me suit (Realy-Chagnon). Waltz, L'amour à Séville (Goublier). In the interval at 8.30: Press Review; Weather.

**PRAGUE**, 8.0—"Fidlovacka"—Opera (contd. from 6.40).

**RADIO-NORMANDIE**, 8.0—Accordion Recital. 8.30—Sports Notes; News. 8.35—Operetta Music.

**REYKJAVIK**, 8.0—For Children. 8.10—Weather. 8.25—Musical Programme. 8.50—Announcements.

**ROME**, 8.0—"L'Arlésienne" (Bizet) (contd. from 7.45).

**SOTTENS**, 8.0—Orchestra (contd. from 7.35). In the interval at 8.15: News.

**STOCKHOLM**, 8.0—Play (Krag) (contd. from 7.30). 8.15—Finnish Songs. Choir. Conductor: Graner. 8.45—News.

**STRASBOURG**, 8.0—News in German; Records. 8.30—Gala Christmas Concert by the Cathedral Choir and Station Orchestra, relayed from the Palais des Fêtes. Conductor: Abbé Hoch. Choral for Mixed Choir and Organ (Mendelssohn). "Adieu des bergers," for Mixed Choir and Orchestra (Berlioz). Suite in B minor for Flute and Strings (Bach). Male Voice Choir: (a) Ave Maria (Areadelt), (b) Confinetime (Palestrina). Eighteenth Century Songs for Tenor and Organ: (a) Evensong, (b) Lullaby. Concerto for Flute, Harp and Orchestra (Mozart). Part II: Christmas Oratorio, for Soloists, Chorus, Harp, Organ and Orchestra (Saint-Saëns).

**STUTTGART**, 8.0—See 7.50 Munich.

**TOULOUSE (Radio-Toulouse)**, 8.0—Light Music. 8.15—Là-Haut (Yvain). 8.30—Light Music.

**TURIN**, 8.0—Concert (contd. from 7.45).

**VIENNA**, 8.0—"Hoch vom Kahlenberg"—Radio Potpourri (contd. from 7.30).

**WARSAW**, 8.0—Variety. 8.30—Sports. 8.45—Letter-box.

## 9 p.m.

**ALGIERS**, 9.0—Station Orchestra (contd. from 8.30). In the interval at 9.10—News. 9.55—News.

**ATHLONE**, 9.0—Lemass (Baritone). 9.15—Doherty (Violin). 9.30—Sketch presented by the Emer Comedy Company.

**BARCELONA**, 9.0—Chimes; Records. 9.15—Vicente Diez de Tejada reads; Records.

**BELGRADE**, 9.0—Press Review; Sports Notes. 9.20—Station Orchestra.

**BERLIN**, 9.0—News; Sports Notes. 9.20—Talk: Finland. 9.35—Dance Music from Königsberg.

**BEROMÜNSTER**, 9.0—"Vakoula the Smith"—Opera (Tchaikovsky) (contd. from 7.0).

**BORDEAUX-LAFAYETTE**, 9.0—"Week-End"—Comedy (contd. from 8.35).

**BRATISLAVA**, 9.20—News; Sports Notes; Announcements in Hungarian. 9.35—Dance Music from Prague.

**BRESLAU**, 9.0—Time; News. 9.30—Station Dance Band from the Konzerthaus. Conductor: Ilgner.

**BRUSSELS (No. 1)**, 9.0—Symphony Concert (contd. from 8.0). In the interval at 9.10—Report from the Théâtre de la Monnaie.

**BRUSSELS (No. 2)**, 9.0—Radio Orchestra. Conductor: André Radio-Music (Poot). Neapolitan Rhapsody (Calotta). Prelude, Dance and March, "Hérodiade" (Massenet). Records: (a) Song, "Martha" (Flotow), (b) Drinking Song, "Der Freischütz" (Weber). Persian Dances (Mussorgsky). Slav Rhapsody in G (Dvořák). The Guildford Suite (Dunhill).

**BUCHAREST**, 9.0—News.

**BUDAPEST**, 9.0—News. 9.20—The Saray Cigány Band.

**COLOGNE**, 9.0—Time; News. 9.25—Opera Music. Station Chamber Orchestra. Kirsch (Bar tone)

9 p.m. (contd.)

Overture, "Martha" (Flotow).  
Waltz, "Faust" (Gounod). Ballet  
Music, "Czar and Carpenter"  
(Lortzing). Baritone Solo: "Da  
streiten sich die Leut' herum, from  
"Der Verschwender" (Kreutzer).  
Selection, "Rigoletto" (Verdi). Se-  
lection, "The Miracle" (Humper-  
dinck). Baritone Solo: "Auch ich  
war ein Jüngling, "Der Waffen-  
schmied" (Lortzing). Selection,  
"Le Postillon de Longjumeau"  
(Auber). Overture, "Fra Diavolo"  
(Adam). In the Interval: Reading.

**DEUTSCHLANDSENDER, 9.0** —  
News; Sports Notes. 9.45—Wea-  
ther.

**FRANKFURT, 9.0**—News. 9.10—  
Local News; Sports Report. 9.20  
—See Munich.

**HAMBURG, 9.0**—News. 9.30—  
Heinemann Dance Band.

**HILVERSUM, 9.0**—Missa solennis  
(Beethoven) (contd. from 7.55).  
9.40—News. 9.55—Light Music.  
Kovacs Lajos Orchestra.

**HUIZEN, 9.0**—K.R.O. Choir. Con-  
ductor: Vermeulen. Mmc. Jo  
Inmink (Contralto); Evert Haak  
(Organ). Die heilige Nacht (Gade).  
Organ Solo: Offertory (Guilmant).  
Het viel een Hemels dauwe (Mulder).  
Ons is ghebooren een Uitvercoren  
(Mulder). Transeamus. Ave verum  
(Mozart). Hodie Christus natus est  
(Sweelinck).

**JUAN-LES-PINS (Radio Côte d'Azur),**  
9.0—News; Dance Music. 9.30—  
Request Programme.

**KALUNDBORG, 9.5**—News. 9.15—  
Koppel (Violin). Fantasias Nos. 7  
and 9 (Telemann). 9.35—Italian  
Serenades. Bracony (Mandoline),  
Mortensen (Mandola) and Fischer  
(Pianoforte). Meditation (Calace).  
Old Serehade (Silvestri). Canzonetta  
(Pietrapertosa). Neapolitan Sere-  
nade (Munier). Invano (Munier).

**KÖNIGSBERG, 9.0**—News; Sports  
Report. 9.30—Börschel Dance  
Band.

**LEIPZIG, 9.0**—News; Sports Notes.  
9.30—Emde Orchestra. Selection,  
"Das Dorf ohne Glocke" (Kün-  
neke). Märchenzauber (Naef). Vor  
einer alten Spieluhr (Müller-Mel-  
born). Traumbilder (Lumbye).

Ein seliger Augenblick (Blumer).  
Overture, "Les quatre fils d'Ay-  
mon" (Balfe). Einzug des Schnee-  
königs (Noack). Wo die Zitronen  
blühen (Strauss). Selection, "Das  
süsse Mädel" (Reinhardt). Nixen-  
geflüster (Heykens). O Frühling  
wie bist du so schön (Lincke).

**MADRID (EAJ7), 9.0**—Josefina Ri-  
bera Sanchis (Violin). Piece (Corelli)  
Minuet (Porpora-Kreisler). Bohe-  
mian Airs (Sarasate). Chaconne  
(Bach). La fille aux cheveux de  
lin (Debussy). Rondo (Mozart-  
Kreisler).

**MONTE CENERI, 9.0**—See 7.0  
Beromünster. 9.45—Sports Notes.

**MOSCOW (No. 1), 9.0**—Chimes.  
9.5—English Talk: Living Con-  
ditions of Wood-workers in Soviet  
Russia.

**MUNICH, 9.0**—News. 9.20—Hein-  
rich Schütz Concert. Station Choir,  
Orchestra and Soloists. Conductor:  
Orff. Soprano, Contralto, Choir  
and Instruments: Sei gegrüsst  
Maria, Höltselige, Historia von der  
Geburt Jesu Christi.

**OSLO, 9.0**—Topical Talk. 9.15—  
Norwegian National Dances—And-  
ersen Orchestra.

**PARIS (Poste Parisien), 9.0-9.45**—  
Variety.

**PARIS (PTT), 9.0**—Variety (contd.  
from 8.30).

**PARIS (Radio-Paris), 9.0**—Light Music  
(contd. from 8.0). In the Interval  
at 9.15: News.

**PRAGUE, 9.0**—News. 9.20—Records.  
9.25—News in German. 9.30—  
Dance Music, by Jaroslav' Cech's  
Jazz Band.

**RADIO-NORMANDIE, 9.5**—Opera  
Arias. 9.30—Selection, "The  
Merry Widow" (Lehár). 9.45—  
Dance Music.

**REYKJAVIK, 9.0**—News. 9.30—  
Reading.

**ROME, 9.0**—"L'Arlésienne" (Bizet)  
(contd. from 7.45). 9.15—Variety.

**SOTTENS, 9.0**—Orchestra (contd.  
from 7.35). 9.10-9.20—Sports  
Notes.

**STOCKHOLM, 9.0**—Ender Orches-  
tra. Overture on a Kreuzer Etude  
(May). Waltz, "Die Puppenfee"  
(Bayer). Cupid (Ottoson). Bizet  
Potpourri. Russian Song (Lalo).

Piece (Moszkowski). Christmas  
Potpourri (Sandell).

**STRASBOURG, 9.0**—Gala Christmas  
Concert (contd. from 8.30).

**STUTTGART, 9.0**—News. 9.20—  
See Munich.

**TOULOUSE (Radio-Toulouse), 9.0**—  
Extracts, "Hérodiade"—Opera  
(Massenet).

**TURIN, 9.0**—Concert (contd. from  
7.45).

**VIENNA, 9.0**—"Hoch vom Kahlen-  
berg"—Radio Potpourri (contd.  
from 7.30). 9.30—Dance Music  
and Songs.

**WARSAW, 9.0**—Light Music; An-  
nouncements. 9.15—Dramatic Pro-  
gramme. 9.30—Dance Music.

10 p.m.

**ATHLONE, 10.0**—Sports Talk by  
S. O'Ceallachain. 10.10—Phillips  
(Soprano). 10.25—Station Orches-  
tra.

**BARCELONA, 10.45**—Chess.

**BELGRADE, 10.0**—Station Orchestra.

**BERLIN, 10.0**—See Königsberg.

**BRESLAU, 10.0**—Dance Music.

**BRUSSELS (No. 1), 10.0**—News.  
10.10—Dance Music, by John  
Rutten's Orchestra, from the Toren-  
kelder Brasserie, Antwerp.

**BRUSSELS (No. 2), 10.0**—News.  
10.10—See Brussels (No. 1).

**BUDAPEST, 10.0**—The Sáray Cigány  
Band. 10.10—Dance Music.

**COLOGNE, 10.0**—Opera Music  
(contd. from 9.25).

**DEUTSCHLANDSENDER, 10.0**—  
See Hamburg.

**FRANKFURT, 10.0**—See 9.20 Mun-  
ich. 10.10—Station Orchestra.  
Conductor: Rosbaud. Overture,  
"Sankt Hubertus" (Füčík). Waltz  
(Dellinger). March (Kraft-Lort-  
zing). Overture, "Morning, Noon  
and Night" (Suppé). Banditen-  
Galopp (Strauss). Waltz, Morgen  
blätter (Strauss). Victoria March  
(Blon).

**HAMBURG, 10.0**—Heinemann Dance  
Band.

**HILVERSUM, 10.0**—Light Music  
(contd. from 9.55). 10.40—News.  
10.50—Records. 10.55—Light Music  
(contd. from 9.55).

**HUIZEN, 10.0**—Choir (contd. from

9.0). 10.10—News. 10.15—Re-  
cords. 10.20—Epilogue. Small  
Choir. Conductor: Pickkers.

**JUAN-LES-PINS (Radio Côte  
d'Azur), 10.0**—Request Pro-  
gramme. 10.30—Variety.

**KALUNDBORG, 10.5**—Wary Dance  
Band.

**KÖNIGSBERG, 10.0**—Börschel Dance  
Band.

**LEIPZIG, 10.0**—Orchestra (contd.  
from 9.30).

**MADRID (EAJ7), 10.0**—Talk; Flem-  
ish Songs, with Guitar Accom-  
paniment; Hermelinda de Montesa  
(Songs).

**MOSCOW (No. 1), 10.5**—German  
Talk, by a Factory Worker: Trades-  
Unions in Factories.

**MUNICH, 10.0**—Heinrich Schütz  
Concert (contd. from 9.20). 10.10  
—See Frankfurt.

**PARIS (Poste Parisien), 10.0**—  
Vincent Hyspa and Dominique  
Bonnaud Programme. 10.30—  
Records.

**PARIS (PTT), 10.0**—Variety (contd.  
from 8.30). 10.55—News.

**PARIS (Radio-Paris), 10.0**—Light  
Music (contd. from 8.0). 10.30—  
Dance Music.

**RADIO-NORMANDIE, 10.0**—Or-  
chestra. 10.30—Light Music.

**REYKJAVIK, 10.0**—Symphonie  
fantastique (Berlioz), on Records;  
Dance Music.

**ROME, 10.0**—News.

**STRASBOURG, 10.0**—Gala Christ-  
mas Concert (contd. from 8.30).  
10.30—Sports Notes. 10.40—  
Dance Music.

**STUTTGART, 10.0**—See 9.20  
Munich. 10.10—See Frankfurt.

**TOULOUSE (Radio-Toulouse), 10.0**  
—"Au Caveau de Dix Heures"—  
Fantasy. 10.15—North African  
News. 10.30—Operetta Music.

**VIENNA, 10.0**—Dance Music and  
Songs.

**WARSAW, 10.0**—Weather. 10.5—  
Dance Music.

11 p.m.

**ATHLONE, 11.0**—Time; News.

**BRESLAU, 11.0**—Dance Music

**BRUSSELS (No. 1), 11.0**—Dance  
Music (contd. from 10.10).

**BRUSSELS (No. 2), 11.0**—See  
10.10 Brussels (No. 2).

**BUDAPEST, 11.0**—The Sáray Cigány  
Band.

SUNDAY Dec. 23

**COLOGNE, 11.0**—Dance Records.

**FRANKFURT, 11.0**—Concert Version,  
"The Merry Wives of Windsor"—  
Opera (Nicolaï) (on Records).

**HILVERSUM, 11.0**—Light Music  
(contd. from 9.55).

**KALUNDBORG, 11.0**—Chimes. 11.2  
—Christmas Greetings to the Faroe  
Islands.

**MADRID (EAJ7), 11.0**—Songs (contd.  
from 10.0). 11.30—Dance Music.

**PARIS (Poste Parisien), 11.0**—Re-  
cords.

**PARIS (PTT), 11.0**—Pascal's Dance  
Band.

**PARIS (Radio-Paris), 11.0**—Dance  
Music.

**RADIO-NORMANDIE, 11.0**—Con-  
cert. 11.15—Celebrity Concert.  
11.30—Dance Music.

**REYKJAVIK, 11.0**—Dance Music.

**STRASBOURG, 11.0**—Dance Music.

**STUTTGART, 11.0**—See Frankfurt.

**TOULOUSE (Radio-Toulouse), 11.0**  
—Operetta Music (contd. from  
10.30). 11.15—Songs. 11.30—  
Orchestra. 11.50—Opera Arias.  
"La Traviata" (Verdi). "Romco  
and Juliet" (Gounod). "Manon"  
(Massenet).

**VIENNA, 11.0**—Schrammel Music, on  
Records.

12 midnight

**FRANKFURT, 12.0 (approx.)**—  
"Invitation to the Dance"—  
Records.

**RADIO-NORMANDIE, 12.0**—Re-  
cords. 12.30—Dance Music.

**REYKJAVIK, 12.0**—Dance Music.

**STUTTGART, 12.0**—See Frank-  
furt.

**TOULOUSE (Radio-Toulouse), 12.0**  
—News. 12.5—Sound-Film Songs.  
12.15—Opera Music. Selection,  
"Orpheus" (Gluck). Selection,  
"Mignon" (Thomas). Passepied,  
"La basoche" (Messenger).

1 a.m. (Monday)

**RADIO-NORMANDIE, 1.0**—News.  
1.10—Dance Music.

Armchair  
Ammunition

A thirsty day of watching for very  
small birds against a very large  
sky! And now to re-live it—in a  
deep, soft chair—over the brisk,  
winking bubbles of Tonic by



Schweppes

BY APPOINTMENT TO HIS MAJESTY THE KING

# MONDAY December 24

## PRINCIPAL EVENTS

### SERVICES AND SACRED MUSIC

- P.M.  
 3.0 Königsberg: Cathedral service.  
 3.30 Kalundborg: Christmas Eve service.  
 5.10 Warsaw: Christmas Oratorio (Saint-Saëns).  
 7.0 Berlin, Cologne: "Christmas Eve."  
 7.0 Bucharest: Europe's Christmas music.  
 7.30 Sottens: Bach programme.  
 8.5 Vienna: Europe's Christmas music.  
 8.20 Munich: "Heilige Nacht" (Fr. Adam).  
 9.15 Vienna: Boys' choir and organ.  
 10.40 Huizen: Service and music.  
 10.40 Sottens: Choral service.  
 10.45 Strasbourg: Christmas Eve service.  
 10.50 Beromünster: Cathedral service.  
 10.50 Vienna: Mass from an Alpine church.  
 11.0 Stuttgart, Berlin, etc.: Mass.  
 11.0 Budapest: Midnight Service.  
 11.0 Leipzig, etc.: Christmas Oratorio, Bach, II.

- 11.0 Warsaw: Mass.  
 11.50 Strasbourg, etc.: Mass.

### SYMPHONY CONCERTS

- P.M.  
 8.0 Brussels No. 2: Dvořák 'cello concerto, etc.  
 8.45 Paris (PTT), Radio-Paris: Ropartz, Hahn, Debussy.  
 9.5 Hilversum: Symphony No. 5 (Tchaikovsky), etc.

### LIGHT CONCERTS

#### NOON

- 12 Brussels No. 1: European Christmas music on records.

#### P.M.

- 1.30 Kalundborg: Radio orchestra.  
 3.0 Cologne, Deutschlandsender: Popular orchestral.  
 3.45 Budapest: Christmas music.

- 6.30 Stockholm: Christmas programme.  
 7.35 Königsberg: Corelli concerto.  
 8.10 Beromünster: Christmas music.  
 9.0 Hamburg: Band concert.  
 9.50 Poste Parisien: Music Hall programme.  
 10.30 Radio-Paris: Christmas Eve programme.  
 10.55 Budapest: Carillon.

### OPERA

- P.M.  
 6.0 Hamburg: "Hänsel und Gretel" (Humperdinck).

### RECITALS

- P.M.  
 5.0 Leipzig: Chorals, brass quartet.  
 5.0 Oslo: Carols, children's choir.  
 6.40 Brussels No. 2: Pianoforte, violin.  
 8.20 Frankfurt: Old-time carols.  
 9.10 Huizen: Carillon.  
 9.40 Leipzig: Günther Ramin, organ.

### PLAYS

- P.M.  
 5.0 Beromünster: Fairy-tale play.  
 6.0 Breslau: Nativity play.  
 6.0 Königsberg: Nativity play (van Dyck).  
 7.35 Prague: "Czech Bethlehem."  
 8.10 Brussels No. 1: "Scrooge's Christmas."

### DANCE MUSIC

- P.M.  
 5.0 Brussels No. 1; 5.30, Stockholm; 10.10, Brussels Nos. 1, 2; 12 midnight (till 2.0 a.m.), Poste Parisien; 12.30 a.m., Radio-Paris.

### MISCELLANEOUS

- P.M.  
 3.0 Budapest: The City's Christmas tree.  
 7.10 Leipzig: Germany's Christmas bells.  
 8.0 All German stations: Greetings to Germans abroad.  
 8.15 Kalundborg: Danish chimes.

### NATIONAL

- Time Signals: Big Ben.—10.15 a.m., 5.15 p.m., 6.30 p.m., 12 midnight.  
 Greenwich—10.30 a.m., 2.0 p.m., 6.0 p.m., at the beginning of the Second News (normally 9.30 p.m.), 11.30 p.m.  
 10.15 a.m. (Droitwich)—Service.  
 10.30 (Droitwich)—Weather Forecast.  
 10.45—Records.  
 11.0—Organ Recital.  
 11.45—Records: "Pagliacci" (Leoncavallo).  
 1.0 p.m.—Arthur Salisbury and his Orchestra.  
 2.0—Dance Records.  
 2.30—Western Studio Orchestra.  
 3.25—Festival of Nine Lessons and Carols in King's College Chapel, Cambridge.  
 4.45—The Alfredo Campoli Trio.  
 5.15—The B.B.C. Dance Orchestra.  
 6.0—"The First News."  
 6.30—"Science in the Making." Gerald Heard.  
 6.45—"The Theatre." Desmond MacCarthy.  
 7.5—"From Plainsong to Purcell." The Foundations of English Music.  
 7.30—Betty Humby (Pianoforte).  
 8.0—Stainless Stephen's Pantomime, by Arthur Clifford and Mac Desmond. Characters: Cinderella, The Ugly Sister, The Fairy Godmother, Sinbad, Friday, Crusoe, all played by Stainless Stephen.  
 8.10—Arthur Marshall (Monologues).  
 8.20—Harold Ramsay and his Rhythm Symphony.  
 9.0—A Carol Service. The Wireless Chorus (Section C). Members of the Wireless Military Band, conducted by Leslie Woodgate, relayed from St. Mary's, Whitechapel.  
 9.30—"The Second News."  
 10.0—B.B.C. Orchestra (Section E), conducted by Julian Clifford. Garda Hall (Soprano). Orchestra: Overture, The Two Blind Men (Méhul); Pavane (Faure). Garda Hall and Orchestra: Scene and Air d'Ophélie (Hamlet) (Thomas). Orchestra: Suite, Mother Goose (Ravel). Garda Hall: If my songs were winged (Hahn); Mignonette, Picconille (Weckerlin). Orchestra: The Accursed Hunter (Franck).  
 11.10—Four Sonnets by Shakespeare, read by Hubert Gregg.  
 11.15-12.0 (Droitwich)—Dance Music. Roy Fox and his Band.

### REGIONAL

- Time Signals: Big Ben.—10.15 a.m., 5.15 p.m., 6.30 p.m., 12 midnight.  
 Greenwich—10.30 a.m., 2.0 p.m., 6.0 p.m., before the Second News (normally 10.0), 11.30 p.m.  
 10.15-10.45 a.m. (except Midland)—Droitwich.  
 10.45—Cinema Organ.  
 11.15—Scottish Studio Orchestra. Mary Ferrer (Soprano).  
 12.30 p.m.—Haydn Heard's Band.  
 1.30—Records.  
 1.55—Belfast Wireless Orchestra. A. V. Froggatt (Baritone). Harry Dyson (Flute).  
 3.30—The Hungaria Gypsy Band.  
 4.15—B.B.C. Midland Orchestra. Dorothy Richards (Contralto).  
 5.15—"The Children's Hour."  
 6.0—"The First News."  
 6.30 (ex. West)—Fred Hartley and his Novelty Quintet.  
 6.30 (West)—Town Hill Senior School Choir. Ernest Worsfold (Trebble). Tommy Rees (Flute and Piccolo). Harold Rubens (Pianoforte).  
 7.15 (London, Belfast)—Wireless Vocal Octet.  
 7.15 (Midland)—Records.  
 7.15 (North)—Hull Anlaby Road Methodist Choir. Woodroyd Handbell Ringers.  
 7.15 (Scottish)—"A Bairn was Born."  
 7.15 (West)—Regional Almanack.  
 7.30 (West)—City of Bristol Police Band. Hilda Blake (Soprano). Purcell Attwood ('Cello).  
 7.45 (London, Scottish, Belfast)—B.B.C. Orchestra (Section D). Arthur Fear (Baritone).  
 8.0 (Midland)—"Scrooge" (Dickens).  
 8.10 (North)—A Nativity Play.  
 8.30 (Midland)—Carol Contrasts.  
 8.45 (West)—"Ysbrydion Afan"—a hair-raising drama.  
 9.0 (London)—Sarah Bernhardt in America. Marcelle Bague.  
 9.0 (Midland, North, Scottish)—"I want to abolish—broadcasting."  
 9.0 (Belfast)—"Christmas Pie."  
 9.15 (London, West)—Georgian Trio.  
 9.25 (Midland)—"The Microphone at large."  
 9.25 (North)—Organ Recital.  
 9.25 (Scottish)—Fellows Quartet.  
 10.0—News Summary.  
 10.10 (Scottish from 10.30)—Roy Fox and his Band.  
 10.40—Dance Records.  
 11.0-12.0 (Midland till 11.15)—Roy Fox and his Band.

Hours of Transmission in Greenwich Mean Time

### 6 a.m.

- BERLIN, 6.0—News. 6.10—See Leipzig.  
 BRESLAU, 6.0—News. 6.15—See Cologne.  
 BUDAPEST, 6.0—Records.  
 COLOGNE, 6.0—Hymn; News; Talk. 6.15—Düsseldorf Concert Orchestra.  
 DEUTSCHLANDSENDER, 6.0—News. 6.15—Records.  
 FRANKFURT, 6.0—Military Band.  
 HAMBURG, 6.0—News. 6.25—See 6.10 Leipzig.  
 KALUNDBORG, 6.0—Gym.  
 KÖNIGSBERG, 6.0—News. 6.10—See Leipzig.  
 LEIPZIG, 6.0—News. 6.10—Orchestra.  
 MUNICH, 6.0—See Frankfurt.  
 PARIS (Radio-Paris), 6.45—Gym.  
 FRAGUE, 6.0-6.30—Music; News.  
 STUTTGART, 6.0—See Frankfurt.  
 WARSAW, 6.7—Records. 6.15—News. 6.25—Records. 6.35—Announcements. 6.50—Light Music.

### 7 a.m.

- BERLIN, 7.0-7.20—Gym. 7.30—Records.  
 BRESLAU, 7.0—See Cologne. 7.40—Gym.  
 COLOGNE, 7.0—Water Level. 7.30—Weather. 7.35—Gym. 7.50—Cookery Talk.  
 DEUTSCHLANDSENDER, 7.45—Gym.  
 ERANKFURT, 7.0—Military Band. 7.15-7.30—Gym.  
 HAMBURG, 7.0—Talk: The Christmas Tree. 7.10-7.45—Announcements; Records.  
 HILVERSUM, 7.40—Records; Religious Programme.  
 HUIZEN, 7.40—Bible Reading; Prayer. 7.55—Records.  
 KALUNDBORG, 7.30—Service.  
 KÖNIGSBERG, 7.0-7.10—Prayers. 7.30—Gym.  
 LEIPZIG, 7.0-7.20—Gym.  
 MOSCOW (No. 1), 7.15—For Children.

MUNICH, 7.0—See Frankfurt. 7.15—Gym.

- PARIS (Poste Parisien), 7.10—Records. In the Interval: News.  
 PARIS (Radio-Paris), 7.0—Records. 7.15—Press Review; Weather. 7.45—Gym.  
 STUTTGART, 7.15—Gym. 7.30—Weather; For Housewives.

### 8 a.m.

- BERLIN, 8.0—Records. 8.45—Cookery Notes.  
 BRESLAU, 8.10—News. 8.15—Records.  
 DEUTSCHLANDSENDER, 8.40—Cookery Notes.  
 FRANKFURT, 8.15—Talks and Music.  
 HILVERSUM, 8.0—Records.  
 HUIZEN, 8.0—Records.  
 PARIS (Poste Parisien), 8.5—Music. 8.20—Press Review. 8.45—Cookery Hints.  
 PARIS (PTT), 8.0—News.  
 PARIS (Radio-Paris), 8.0—Records.

### 9 a.m.

- BERLIN, 9.0-9.20—News; Markets.  
 COLOGNE, 9.0—News. 9.10—Three Topical Talks.  
 DEUTSCHLANDSENDER, 9.0—News.  
 FRANKFURT, 9.0—News. 9.45—For Housewives.  
 HAMBURG, 9.50—News.  
 HILVERSUM, 9.0—Records. 9.55—Recitations.  
 HUIZEN, 9.0—Records. 9.10—Religious Programme.  
 KÖNIGSBERG, 9.40—News.  
 LEIPZIG, 9.0-9.15—Announcements.  
 MOSCOW (No. 1), 9.0—News.  
 PRAGUE, 9.5—News in German. 9.10—Record. 9.15—Prague Symphony Orchestra.  
 STUTTGART, 9.0—News. 9.15—Papillons (Schumann), by Hede Eisenbruch (Pianoforte). 9.30—Christmas Music. String Quartet, Käthe Ivers (Soprano), and Kurt Albrecht (Organ).

### 10 a.m.

- BERLIN, 10.25-10.30—Exchange.  
 BRESLAU, 10.30-10.45—News.  
 COLOGNE, 10.0—Armin Knab Recital. Gerta Bleckmann (Soprano) and Egbert Grape (Pianoforte). 10.30—Concert.  
 DEUTSCHLANDSENDER, 10.15—Weather. 10.30—A Christmas Fairy Play (Elsa Rentrop). 10.45—Greetings.  
 FRANKFURT, 10.0—Concert. 10.30—Announcements; Exchange.  
 HAMBURG, 10.0—Records: Opera Potpourris. 10.30—Symphony Orchestra, from Hanover Castle. Conductor: von Sosen. Schönherr (Violin). Selection, "Tannhäuser" (Wagner). Overture, "Die Feen" (Wagner). Selection, "Das Rheingold" (Wagner). Christmas Pastorale and Gavotte (Niemann). Selection, "Mona Lisa" (v. Schilling). Violin Solo, from "The Violin-maker of Cremona" (Hubay). Die Schönbanner (Lanner). March (Dostal).  
 HILVERSUM, 10.0—Recitations. 10.15—Trio. 10.40—Recitations.  
 HUIZEN, 10.0—Religious Programme. 10.40—Bible Reading.  
 KÖNIGSBERG, 10.30—Records.  
 LEIPZIG, 10.50—News.  
 MUNICH, 10.5—Markets; News.  
 OSLO, 10.15—Service. 10.50—Exchange.  
 PRAGUE, 10.0—Record. 10.5—Orchestra. 10.55—For Farmers.  
 STUTTGART, 10.0—Old Harpsichord Music, by Alfred Kreutz. 10.15—Concert. 10.45—For Farmers.  
 TURIN, 10.30—Trio.  
 VIENNA, 10.30—Folk Music Records.

### 11 a.m.

- BERLIN, 11.0—Announcements. 11.15—See 10.30 Hamburg.  
 BEROMÜNSTER, 11.0—Military Band Records. 11.30—News. 11.40—Records.  
 BRESLAU, 11.0—Station Orchestra. Conductor: Koschinsky.  
 BUDAPEST, 11.5—Berend Orchestra. In the Interval at 11.20: News.

### 12 noon

- BERLIN, 12.0—Talk: Christmas. 12.15—Records for Children.  
 BRESLAU, 12.0—Orchestra (contd. from 11.0). In the Interval at 12.15: News.  
 BRUSSELS (No. 1), 12.0—Christmas Music of Europe (on Records).

- BRUSSELS (No. 2), 12.0—Orchestra. Conductor: Walpot.  
 BUDAPEST, 12.0—Berend Orchestra 12.30—Pianoforte.  
 COLOGNE, 12.0—News; Greetings. 12.10—Orchestra (contd. from 11.0).  
 DEUTSCHLANDSENDER, 12.0—"Peace on Earth"—Carols of Many Lands (on Records). 12.40—News.  
 FRANKFURT, 12.10—News. 12.15—See Stuttgart.  
 HAMBURG, 12.0—Exchange. 12.20—Light Music.  
 HILVERSUM, 12.0—Records. 12.10—Orchestra. Conductor: Wallis. 12.40—Records. 12.50—Orchestra. Conductor: Horst.  
 HUIZEN, 12.0—Records. 12.10—Zwart (Organ). Paraphrase (Zwart). Variations on O Sanctissima (Chipp). Carol (d'Ancon). Concert Fantasia on O Sanctissima (Lux). Preludia on O Sanctissima (Lux). (a) In dulci jubilo (Bach). (b) Vom Himmel Hoch (Fuchelbel). (c) Wie schön leuchtet der Morgenstern (Buxtehude). Suite, Fête de Noël (Zwart). Musette (v. Durme). Hosannah (Dubois). Carillon (de Lange). Finale (Zwart).  
 KALUNDBORG, 12.0—Bendix String Ensemble.  
 KÖNIGSBERG, 12.0—Records.  
 LEIPZIG, 12.0—News. 12.10—Records.  
 MONTE CENERI, 12.5—Dance Records. 12.15—Cookery Hints.  
 MUNICH, 12.0—Records. 12.15—News. 12.25—Rosenberger Chamber Quartet.  
 OSLO, 12.0—Records. In the Interval: For Farmers; Exchange.  
 PARIS (Poste Parisien), 12.0—Exchange. 12.5—Orchestra. 12.25—News. 12.35—Orchestra.  
 PARIS (PTT), 12.0—Tourist Notes. 12.15—Light Music. Orchestra. Conductor: Rosenthal. Mlle. Guionie (Songs).  
 PARIS (Radio-Paris), 12.0—Light Music—Pascal Orchestra.  
 PRAGUE, 12.0—Orchestra (contd. from 11.35).  
 RADIO-NORMANDIE, 12.0—Military Music. 12.30—Press Review. 12.45—Request Programme.  
 ROME, 12.0—Announcements. 12.10—Gemmy Orchestra. In the Interval at 12.35: News; Exchan-

12 noon (contd.)

SOTTENS, 12.0—Records.
STUTTGART, 12.5—News. 12.15—
Karlsruhe Philharmonic Orchestra.
Conductor: Froehlich.
TURIN, 12.0—Announcements. 12.5
—For Housewives. 12.10—Orchestra.
In the Interval at 12.35:
Records.
VIENNA, 12.0—News. 12.10—
Women's Symphony Orchestra
(contd. from 11.30). Prelude and
Fugue for Strings, Pianoforte and
Kettledrum (Estherhazy). Sarabande
and Elegy for Cello and Strings
(Bachrich). Serenade, "In the Far
West" (Bantock). Austrian Suite
(Bortkiewicz).

1 p.m.

ATHLONE, 1.30—Weather; Records
BERLIN, 1.0—News. 1.15-1.30—
Records of the Regensburg Cathed-
rals Boys' Choir.
BRESLAU, 1.5—Exchange. 1.10—
Announcements; Records. 1.40—
Markets.
BRUSSELS (No. 1), 1.0—News.
1.10—Orchestra. Conductor: Wal-
pot. Durand (Tenor). Overture, Le
carillonneur (Gauwin). Invitation
to the Waltz (Weber). Selection,
"Les dragons de Villars" (Maillart).
Amina (Lincke). Songs: (a) Si
petite (Claret), (b) Pour un sou
d'amour (Chantrier). Ballet, "Coc-
pelia" (Delibes).

3 p.m.

BEROMÜNSTER, 2.30—Johann
Strauss Concert. Station Orchestra.
Conductor: Neppach.
BRESLAU, 2.0—Markets. 2.10—
Book Review. 2.30—"Christmas in
Upper Silesia"—Play (Maria Kup-
fer).
BUDAPEST, 2.30—Children's Songs.
COLOGNE, 2.0—Fairy Tales for
Children. 2.30—Christmas Visits
with the Microphone. 2.50—
Topical Talk.
DEUTSCHLANDSENDER, 2.0—
Announcements. 2.15—Punch and
Judy Show with Music for Children.
FRANKFURT, 2.0—Christmas Guess-
ing Competition Prize Distribution.
HAMBURG, 2.0—Records for Chil-
dren. 2.30—Two Sacred Legends:
(a) Maria Biensegen (Carl Welter-
hausen), (b) Leontopolis (Strind-
berg).
HILVERSUM, 2.0—Walis' Orchestra
2.10—Saxophone and Pianoforte.
Suite, Campestre (Scassola). 2.20
—Walis' Orchestra. 2.40—For
Women.
HUIZEN, 2.0—Records. 2.15—
Gardening Talk. 2.55—Dress-
making.
KALUNDBORG, 2.0—Orchestra
(contd. from 1.30).
KÖNIGSBERG, 2.0—Christmas
Music by Girls. 2.30—Music Talk:
Johann Daniel Falk.
LEIPZIG, 2.15—Talk: Olav Aaste-
son's Dream Song. 2.30—Variety
for Young People.
MOSCOW (No. 1), 2.15—For
Children.
MUNICH, 2.0—Christmas Music by
Children. 2.10—Chamber Music.
Lenore Bernd (Contralto), Schaeette
(Violin), Weymar (Viola), Pabst
(Cello) and Staab (Pianoforte).
2.30—Kuni Tremel-Eggert reads
from her book, "Sonnie Heimat."
OSLO, 2.0—For Children.
PARIS (Poste Parisien), 2.0—Ex-
change.
PARIS (PTT), 2.0—Records: Italian
Opera Arias.
PRAGUE, 2.0—Talk: Christmas in
Prague. 2.15—A Report from
Moravská-Ostrava. 2.30—Carols
for Children.
STOCKHOLM, 2.0—Hylbom Or-
chestra.
STUTTGART, 2.0—See Frankfurt.
VIENNA, 2.0—Exchange. 2.20—
"Prinzessin Husewind"—Fairy
Play (Fritz Busch). After the
Play, Distribution of Prizes for the
Fairy Tale Competition.

4 p.m.

BEROMÜNSTER, 4.0—Station Or-
chestra. Conductor: Hofmann.
BRESLAU, 4.0—Military Band (contd.
from 3.0). 4.30—Markets. 4.35—
Poem: Der Christbaum (Bernhard
Wilm).
BUCHAREST, 4.0—Light Music.
Station Orchestra.
BUDAPEST, 4.0—Christmas Con-
cert (contd. from 3.45).
COLOGNE, 4.0—Reading in Dialect.
4.15—Cologne Symphony Orchestra.
Conductor: Gillesen.
DEUTSCHLANDSENDER, 4.0—
Evensong from St. Matthew's
Church.
FRANKFURT, 4.0—Christmas Music
on Records.
HAMBURG, 4.0—See 3.0 Berlin.
4.30—Variety.
HILVERSUM, 4.0—Records. 4.10—

5 p.m.

BERLIN, 5.0—"The Candles Burn"
—Christmas Concert by Fried-
rich Kayssler and Franziska King
(Recitations), the Schwarzmeier
Children's Choir, and a Trombone
Quartet. Conductor: Klauk.
BEROMÜNSTER, 5.0—"Hans im
Glück"—Fairy Tale Play for
Children (Koreny-Scheck).
BRATISLAVA, 5.0—Hungarian
Transmission: Talk: The Divine
Mystery of Bethlehem; Children's
Choir.
BRESLAU, 5.0—"Carols of Many
Nations"—Records.
BRUSSELS (No. 1), 5.0—Dance
Music.
BRUSSELS (No. 2), 5.0—Records:
Light Music. 5.45—For Children.



Scrooge's
Christmas,
to be
presented
in dramtic
form by
Brussels
No. 1 at
8.10 p.m.

For Children. 4.40—Orchestra.
Conductor: Steyn. Frühling in
der Heimat (Krome). Negro
Serenade (Pryor). Karavanzenguz
(Rey). Du bist mein Traum (Korn-
gold). Von Lenz und Liebe (Korner).
HUIZEN, 4.0—de Jager (Songs) and
Jurjaanz (Organ). 4.40—Concert.
Conductor: v. d. Hurk. Blaauw
(Organ). Romance in F (Beethoven).
Flute, Cello and Organ: Se-
renade (Titl). Melody (Nicolai).
Schumann Fantasia. Trio on a
Bavarian Theme (Donjon-Sabon).
Serenade (Widor). Trio (Cui).
KALUNDBORG, 4.0—Service (contd.
from 3.30). 4.30—Reading.
KÖNIGSBERG, 4.0—Talk: Lonell-
ness. 4.15—Christmas Carols
(Cornelius), by Lotte Rosenov
(Contralto). 4.40—Talk: Chris-
tmas Church Services in Finland.
LEIPZIG, 4.0—"Christmas in the
Erzgebirge"—Radio Report. 4.20
—"The Birth of Christ"—Nativity
Play with Music (Roelsing).
MONTE CENERI, 4.0—See Beromün-
ster.
MORAVSKÁ-OSTRAVA, 4.15—
Christmas Concert.
MUNICH, 4.0—See Frankfurt.
OSLO, 4.0—For Young People
4.15—Reading. 4.45—Chimes.
PARIS (Poste Parisien), 4.50—Ex-
change.
PARIS (Radio-Paris), 4.0—Exchange.
PRAGUE, 4.0—Talk. 4.15—Ger-
man Carols. 4.45-4.50—News in
German.
RADIO-NORMANDIE, 4.0—Classi-
cal Music. 4.30—For Children.
4.45—Dance Music.
ROME, 4.30—Recital, from the
Royal Philharmonic Academy.
Luciana Gabrici and Giovanni
dell'Agnola (Pianofortes),
Margherita Gabrici (Violin).
SOTTENS, 4.0—See Beromünster.
STOCKHOLM, 4.5—Service.
STUTTGART, 4.0—See Frankfurt.

BUCHAREST, 5.0—News. 5.15—
Light Orchestral Music.
BUDAPEST, 5.0—Kerpely (Cello).
Sonata in G minor (Ariosti).
Sarabande and Loure (Bach). Se-
renade (Forsberg). Two Hungarian
Songs (Polgar). 5.35—Talk.
COLOGNE, 5.0—Christmas Music by
Bells, Organs, and Choirs.
DEUTSCHLANDSENDER, 5.0—
Soloists, "Merry Christmas!"
The Fehse Quartet, The Leipzig
"Thomaner," the Barfüss Church
School Choir of Augsburg, the
Station Chamber Choir, the German
Oratorio Choir, and the Augmented
Station Orchestra. Conductors:
Görner and Kirstein. Address by
the Station Director.
FRANKFURT, 5.0—"Heilige Nacht"
(Ludwig Thoma). 5.30—Christmas
Carols by a Blind Choir. Con-
ductor: Burkard.
HAMBURG, 5.0—Christmas Eve Ser-
vice. 5.30—A Children's Choir.
HILVERSUM, 5.0—Orchestra (contd.
from 4.40). 5.10—Orchestra. Con-
ductor: Horst. Selection, "Fre-
derica" (Lehár). Blumengefüstter
(Blon). Czardas (Michiels). Teddy-
Bear's Picnic Party (Bratton). 5.40
—Orchestra. Conductor: Walis.
Alles Schlager (Kirstein). Zuschau'n
kann ich nicht (Benatzky). Der
verliebte Hampelmann (Rust). Rus-
sian Potpourri. Lady of Spain
(Evans).
HUIZEN, 5.0—Concert (contd. from
4.40).
KALUNDBORG, 5.0—Chimes. 5.15
—Illustrated Talk: The Story of
a Tune. 5.45—Weather.
KÖNIGSBERG, 5.0—"Christmas
Celebrations here, there and every-
where"—Radio Reports. 5.30—
Christmas Carols.
LEIPZIG, 5.0—Christmas Carols,
Leipzig Trumpet Band and a Brass
Quartet. 5.45—"Christmas Eve"
—Station Orchestra. Conductor:
Blumer (Pianoforte). Henriette
Lehne (Contralto), Carl Viermann

6 p.m.

ATHLONE, 6.0—For Children. 6.45
—News.
BARI, 6.15—News in Foreign Lan-
guages; Records.
BELGRADE, 6.30—National Pro-
gramme.
BERLIN, 6.0—"The Candles burn"
—Christmas Concert (contd. from
5.0).
BEROMÜNSTER, 6.0—Christmas
Carols of Many Lands (on Records).
6.30—Soloists and Orchestral Con-
cert by the Station Orchestra.
Conductor: Hofmann. Maria
Stader (Soprano). Marcel Salliet
(Oboe).
BORDEAUX-LAFAYETTE, 6.30
News.
BRATISLAVA, 6.48—Slovak Carols.
Zdenek Ruth-Markov (Bass).
BRESLAU, 6.0—"The Böhmervald
Nativity Play" (arr. Jaksch), from
a Church in the Riesengebirge.
BRUSSELS (No. 1), 6.0—Talk: The
Belgian Anti-Tuberculosis Cam-
paign. 6.15—Records. Three Pieces
(Gevaert). Overture, "Le roi l'a
dit" (Delibes). 6.30—French Music.
Conductor: Walpot. Overture,
"The Black Domino" (Auber).
Etoile polaire (Waldteufel). Oboe:
Scènes écossaises (Godard). Extase
(Ganne). Selection, "Véronique"
(Messager). La lettre de Manon
(Gillet). Cello: Elégie (Massenet).
Ballet, "The Queen of Sheba"
(Gounod).

2 p.m.

ATHLONE, 2.0-2.30—Records.
BERLIN, 2.25—Variety.

## MONDAY Dec. 24

## 6 p.m. (contd.)

BRUSSELS (No. 2), 6.0—For Children 6.30—Records: Four German Dances (Mozart). 6.40—Mlle. Bauwens (Pianoforte); Spatz (Violin). Andalusian Romance (Sarasate). Fantasia appassionata (Vieuxtemps). Lesghinka (Liapunow). Polonaise brillante (Wieniawski).

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

BUDAPEST, 6.0—Carillon from the University Church.

COLOGNE, 6.0—See Breslau.

DEUTSCHLANDSENDER, 6.0—“Merry Christmas”—Musical Programme (contd. from 5.0).

FRANKFURT, 6.0—“A Christmas Carol”—Play after Charles Dickens (Lehner-Sander). 6.45—Organ.

HAMBURG, 6.0—“Hänsel and Gretel”—Fairy Opera (Humperdinck).

HILVERSUM, 6.0—Orchestra (contd. from 5.40). 6.10—Music Talk; Records. 6.40—Wins (Pianoforte).

HUIZEN, 6.0—Concert (contd. from 4.40). 6.10—To be announced. 6.40—Police Messages; Religious Notes. 6.55—Records.

KALUNDBORG, 6.0—News. 6.15—Christmas Greetings from European Countries. 6.40—Greetings to Danish Sailors at Sea.

KÖNIGSBERG, 6.0—Nativity Play (van Dyck). 6.45—Christmas Chimes from East Prussian Churches; Readings (Agnes Miegel); Organ Music.

LAHTI, 6.10—Roundelays. 6.30—Talk. 6.45—Station Orchestra. Conductor: Linko.

LEIPZIG, 6.0—Christmas Eve Concert (contd. from 5.45).

MONTE CENERI, 6.15—Reading (Zoppi). 6.30—Records: Christmas Music. 6.45—News.

MOSCOW (No. 1), 6.0—Symphony Concert.

MUNICH, 6.0—Christmas Music (contd. from 5.0). 6.15—“Christmas in a Mountain Hut”—Report from the Wendelstein.

OSLO, 6.0—Christmas Carols (contd. from 5.0). 6.15—News. 6.30—Christmas Carols and Reading.

PARIS (Poste Parisien), 6.25—Exchange. 6.30—Guignol Lyonnais.

PARIS (PTT), 6.0—Economics—Review and Talks. 6.30—News.

PARIS (Radio-Paris), 6.10—For Farmers; Market Prices. 6.30—Christmas through the Ages—Talks.

PRAGUE, 6.0—Record: “A Christmas Poem. 6.5—International Relay: “Peace to Men of Good Will.” Part I. 6.40 (approx.)—Record. 6.45—Chimes; Christmas Greetings. 6.48—See Bratislava.

RADIO-NORMANDIE, 6.0—For Children. 6.30—Art and Literary Review. 6.50—News.

ROME, 6.0—Announcements. 6.15—News in Foreign Languages. 6.50—Dance Music.

STOCKHOLM, 6.0—Roundelays (contd. from 5.30). 6.15—News. 6.30—“Christmas in the Studio and the City.” Overture (Ek). Report from a Hospital. Pieces (Westberg): (a) Miniature, (b) Dance, (c) Scherzo. Reading: Folk Melody (Wiklund). Dance: Folk Melody (Center). Report from a Fire Station. Carols. Report from a Railway Station. Christmas Potpourri (Sköld). Old Christmas Carol (arr. Sköld).

STRASBOURG, 6.0—Talk: Sir Walter Scott’s “Rob Roy.” 6.15—Weekly Review in German. 6.30—Records.

STUTTGART, 6.0—Christmas Music (contd. from 5.0).

TOULOUSE (Radio-Toulouse), 6.0—News. 6.15—Symphony Orchestra. 6.30—Opera Arias. 6.45—Soloists.

TURIN, 6.5—Italian Lesson; News in Foreign Languages.

VIENNA, 6.0—News. 6.10—Vienna Chamber Orchestra. Conductor: Oskar Jascha.

WARSAW, 6.0—Christmas Oratorio (Saint-Saëns) (contd. from 5.10). 6.10—Christmas Eve Programme for Soldiers. 6.35—Talk. 6.50—Christmas Carols (Swierzynski).

## 7 p.m.

ATHLONE, 7.0—Irish. 7.15—Christmas Poems by Teresa Brayton. 7.30—Time. 7.31—The St. Francis Xavier Church Choir.

BARI, 7.45—Programme for Greece.

BELGRADE, 7.0—Christmas Music of the Nations (on Records).

BERLIN, 7.0—“Christmas Eve”—Gala Variety Concert by Soloists, the German Folk Song Trio, the Bruinier Quartet, the Station Choir, the Station Orchestra, and Soloists. Conductors: Frickhoeffer, Steiner and Weigel.

BORDEAUX-LAFAYETTE, 7.45—Talk: Bordeaux a Hundred Years Ago.

BRESLAU, 7.0—Nativity Play (contd. from 6.0). 7.10—See Leipzig.

BRNO, 7.10—Christmas Eve Programme.

BRUSSELS (No. 1), 7.0—French Music (contd. from 6.30). 7.30—Film and Theatre Review.

BRUSSELS (No. 2), 7.0—Christmas Stories. 7.15—Dance Records. 7.30—Theatre Review.

BUCHAREST, 7.0—Christmas Music of the Nations (on Records).

COLOGNE, 7.0—“Christmas Eve” Christmas Music in the Home. Carols. Christmas Roses—a Legend. Carols of Germans outside Germany.

DEUTSCHLANDSENDER, 7.10—“Merry Christmas”—Musical Programme (contd. from 5.0).

FRANKFURT, 7.0—Organ. 7.10—See Leipzig.

HAMBURG, 7.0—“In Praise of Mothers”—Christmas Concert by the Station Choir, the Station Orchestra and Soloists.

HILVERSUM, 7.0—Judi Barnowski (Violin). 7.20—Art Talk. 7.40—SOS Messages. 7.43—Orchestra. Conductor: Renes. Andante religioso (Kwast). Carol (Adam). Carol (Renes). 7.55—Ensemble Music.

HUIZEN, 7.0—Records. 7.10—Letter-Box. 7.40—News. 7.45—Christmas Concert from the Ande Kerk, Amsterdam. Choirs, Trumpet Quartet, Engels (Organ).

KALUNDBORG, 7.0—Chimes. 7.2—Christmas Concert. Organ Fantasia (Buxtehude). Carol for Soprano, Organ and Cello. Largo in G minor for Two Violins, Cello and Organ (Handel). Pastoral, Christmas Concerto for Two Violins, Cello and Organ (Corelli). Christmas Cantata for Soprano, Two Violins, Cello and Organ (Buxtehude). Adagio for Cello and Organ (Locatelli). Christmas Poems. Ring the Bells, for Soprano, Two Violins, Cello and Organ (Rung). Andante religioso (Henriques). Carol for Soprano, Two Violins, Cello and Organ. (Berggreen). Organ Fantasia (Klaebel).

KÖNIGSBERG, 7.0—Chimes, Readings and Organ Music (contd. from 6.45). 7.35—Christmas Concerto (Corelli) by the Small Station Orchestra. Conductor: Firchow.

LAHTI, 7.0—Orchestra (contd. from 6.45). 7.35—Play (Loistilla).

LEIPZIG, 7.0—Christmas Eve Concert (contd. from 5.45). 7.10—Thirty German Cathedrals ring Christmas in—Chimes with Commentary.

MADRID (EAJ7), 7.0—News. 7.15—Sextet. Conchita Aguillo (Soprano).

MONTE CENERI, 7.0—Children’s Choir. Conductor: Filippello. 7.30—“Unto us a Child is Born”—Nativity Play.

MORAVSKÁ-OSTRAVA, 7.0—Folklore Programme.

MUNICH, 7.0—Report (contd. from 6.15). 7.10—See Leipzig.

OSLO, 7.0—Christmas Carols.

PARIS (Poste Parisien), 7.0—Legal Notes. 7.7—News. 7.33—Records: Extracts, “Ma non”—Opera (Masset). 7.48—Song Records.

PARIS (PTT), 7.45—Talk on Aviation. 7.53—Assurance Societies Report.

PARIS (Radio-Paris), 7.0—Talks (contd. from 6.30). 7.30—Topical Talk.

PRAGUE, 7.0—See Moravská-Ostrava. 7.10—See Brno. 7.35—“Czech Bethlehem”—Play (Kares). Music by Kricka.

RADIO-NORMANDIE, 7.0—Request Programme.

REYKJAVIK, 7.0—Service.

ROME, 7.0—News. 7.10—Records. 7.30—Announcements; Talk. 7.45.

SOTTENS, 7.0—Dance Music. In the Interval: Talk. 7.15—Talk on the following Transmission. 7.30—Bach Concert from the Victoria Hall, Geneva. Choir; Radio-Suisse Romande Orchestra; Conductor: Barbian. Organ: Advent Choral. Choir, Soloist and Organ: Magnificat. Orchestra: Pastorale. Choral for Organ, Orchestra and Choir. Cantata, Nun ist das Heil.

STOCKHOLM, 7.0—“Christmas in the Studio and the City” (contd. from 6.30).

STRASBOURG, 7.0—Records. 7.30—News. 7.45—Records.

STUTTGART, 7.10—See Leipzig.

TOULOUSE (Radio-Toulouse), 7.0—Talk: Economics. 7.10—Christmas Music. 7.30—News. 7.40—Children’s Choir: Sacred Music.

TURIN, 7.0—News; Records. 7.30—Announcements; Talk. 7.45—See Rome.

VIENNA, 7.0—Vienna Chamber Orchestra (contd. from 6.10). 7.40—Recitation.

WARSAW, 7.0—Christmas Carols (Swierzynski). 7.20—Christmas Carols. Municipal Choir. Conductor: Czudowski. 7.35—Mountain Songs and Dances (arr. Serejski). Wesola Piatka Choir and String Quartet.

## 8 p.m.

ALGIERS, 8.0—Request Records. 8.25—News. 8.30—Station Orchestra.

ATHLONE, 8.0—Christmas Stories and Verse, by P. J. O’Conner Duffy. 8.20—Station Orchestra. 8.50—Sacred Songs. Joseph O’Reilly (Tenor).



Bach, whose Christmas Oratorio is to be heard from several stations in the course of the week

BARI, 8.0-8.15—Programme for Greece.

BELGRADE, 8.0—Records (contd. from 7.0).

BERLIN, 8.0—See Munich. 8.20—“Christmas Eve”—Gala Variety (contd. from 7.0).

BEROMÜNSTER, 8.0—News. 8.10—Christmas Concert. Station Orchestra. Conductor: Hofmann. Maria Stader (Songs).

BORDEAUX-LAFAYETTE, 8.0—See Paris (PTT). 8.10—News. 8.30—Christmas Programme.

BRATISLAVA, 8.15—Christmas Programme.

BRESLAU, 8.0—See Munich. 8.20—Old German Carols.

BRNO, 8.35—Station Orchestra. Conductor: Bakala. Holub (Violin).

BRUSSELS (No. 1), 8.0—Hungarian Overture (Kéler-Béla). 8.10—“Scrooge’s Christmas”—Play, after Charles Dickens (Schmidt).

BRUSSELS (No. 2), 8.0—Symphony Orchestra. Léon Roy (Cello). Overture, “A Life for the Czar” (Glinka). Cello Concerto (Dvořák). 8.45—Records.

BUCHAREST, 8.0—Christmas Programme (contd. from 7.0).

COLOGNE, 8.0—See Munich. 8.20—“Christmas Eve Programme.” Extracts, “Christmas Oratorio” (Bach) by Soloists, the Bach Society Choir and the String Orchestra of the Municipal Academy of Music. Conductor: Boell. Reading: An Exile’s Christmas Letter Home (Kneip). Prelude and Fugue in C (Bach), by Willy Poschadel (Organ). Carols (Cornelius), by Elfriede Kemmann (Contralto): (a) Christbaum, (b) Die Hirten, (c) Die Könige, (d) Simeon, (e) Christus, der Kinderfreund, (f) Christkind. Records: Serenades (Haydn, Mozart, Wolf, Brahms).

DEUTSCHLANDSENDER, 8.0—See Munich. 8.20—Extracts, “Hänsel and Gretel”—Fairy Opera (Humperdinck). Station Orchestra and Soloists. Conductor: Kirsten.

FRANKFURT, 8.0—See Munich. 8.20—Old Christmas Carols by the Station Choir. Conductor: Belker. Es ist ein Rosent genjun

(Praetorius). Dies Sanctificatus (Palestrina). Vom Himmel hoch, da komm ich her (Eccard). In natali Domini (Praetorius). Psallita (Praetorius). Josef ist das neue Kindlein g’boren? Es müssen sich freuden und fröhlich sein (Niedt). Auf dem Berge, da gehet der Wind (Woyrsch). Jesulein gart (arr. Fuchs). Uns ist ein Kindlein geboren (Liebhold). Hodie Christus natus est (Sweelick). Kindelwiegen (arr. Othegraven).

HAMBURG, 8.0—See Munich. 8.20—“In Praise of Motherhood” (contd. from 7.0).

HILVERSUM, 8.0—Ensemble Music. 8.25—String Orchestra. Conductor: Walis. Suite of English Folk Tunes (Foster). Liebessehnsucht (Friedemann). St. Paul’s Suite (Holst). 8.55—Press Review.

HUIZEN, 8.0—Christmas Concert (contd. from 7.45).

JUAN-LES-PINS (Radio Côte d’Azur), 8.0—Announcements; Exchange. 8.10—Station Orchestra. 8.30—Dramatic Programme.

KALUNDBORG, 8.0—Christmas Concert (contd. from 7.2). 8.15—Chimes, with Commentary.

KÖNIGSBERG, 8.0—See Munich. 8.20—“The Königsberg Station Greet its Listeners.” Small Station Orchestra and Choir. Conductor: Wilcken.

LAHTI, 8.0—Play (contd. from 7.35). 8.25—Organ, from the Church of St. John. 8.45—Christmas Greetings, in Finnish and Swedish. 8.55—Christmas Carol.

LEIPZIG, 8.0—See Munich. 8.30—Records.

LYONS (La Doua), 8.0—For Poultry Farmers. 8.10—Music Review. 8.20—Topical Talk 8.30—Christmas Music.

MADRID (EAJ7), 8.0—Sextet (contd. from 7.15). 8.15—News. 8.30—Christmas Carols of European Countries.

MONTE CENERI, 8.0—Christmas Concert. Station Orchestra.

MORAVSKÁ-OSTRAVA, 8.15—Christmas Programme.

MOSCOW (No. 1), 8.0—German Talk: Christmas Eve in Soviet Russia. 8.55—Chimes.

MUNICH, 8.0—Transmission for all German Stations: Christmas Address by Reichsminister Rudolf Hess to Germans Abroad and at Sea. 8.20—“Heilige Nacht”—Sequence (Ludwig Thoma), Music by Franz Adam.

OSLO, 8.0—Christmas Carols 8.40—Weather.

PARIS (Poste Parisien), 8.10—Exchange. 8.15—Humorous Programme by Max Régner. 8.55—Exchange.

PARIS (PTT), 8.0—Talk: The True Frenchwoman. 8.10—Records: Carols. 8.45—Symphony Concert. National Orchestra; Choirs: Soloists. Conductor: Inghelbrecht. Le miracle de St. Nicolas (Ropartz). Pastorale de Noël (Hahn). La boîte à joujou (Debussy).

PARIS (Radio-Paris), 8.0—Christmas Stories. 8.30—Press Review; Weather. 8.45—See Paris (PTT).

PRAGUE, 8.0—“Czech Bethlehem”—Play (Kares) (contd. from 7.35). 8.10—A Christmas Message, by Karel Capek. 8.15—Christmas Programme, from Kosice. 8.35—See Brno.

RADIO-NORMANDIE, 8.0—Request Programme. 8.15—Duets 8.30—Talk. 8.45—Light Music.

ROME, 8.0—Greetings from America. 8.30—Christmas Concert. (Music by Manfredini, Carnevali and Perosi).

SOTTENS, 8.0—Bach Concert (contd. from 7.30). News in the Interval.

STOCKHOLM, 8.0—“Christmas in Studio and the City” (contd. from 6.30). 8.45—News.

STRASBOURG, 8.0—News in German; Records. 8.30—Christmas Variety.

STUTTGART, 8.0—See Munich.

TOULOUSE (Radio-Toulouse), 8.0—Children’s Choir: Sacred Music. 8.15—Light Music.

TURIN, 8.0—See Rome.

VIENNA, 8.5—“Peace on Earth and Good Will to all Men”—Christmas Carols of Many Lands, on Records.

WARSAW, 8.0—Mountain Songs and Dances (contd. from 7.35). 8.10—Talk: The First Christmas Eve

in the Trenches. 8.25—Illustrated Talk: Christmas Carol Singers in Silesia.

## 9 p.m.

ALGIERS, 9.0—Station Orchestra 9.15—“Ma non”—Opera (Masset), on Records.

ATHLONE, 9.0—Joseph O’Reilly (Tenor). 9.5—Station Orchestra. 9.25—John Lynskey (Baritone). 9.45—Station Orchestra.

BARCELONA, 9.0—Chimes; Exchange. 9.10—Art Notes. 9.40—Consuelo Serrats (Soprano).

BERLIN, 9.0—“Christmas Eve”—Gala Variety (contd. from 7.0).

BEROMÜNSTER, 9.0-9.15—Christmas Concert (contd. from 8.10).

BORDEAUX-LAFAYETTE, 9.0—Christmas Programme.

BRESLAU, 9.0—Records.

BRNO, 9.0—Orchestra (contd. from 8.35).

BRUSSELS (No. 1), 9.0—“Scrooge’s Christmas”—Play (contd. from 8.10). 9.15—Orchestra. Conductor: Walpot. Durand (Songs) and Gilman (Flute). March, Stars and Stripes (Sousa). Waltz, Wiener Bonbons (Strauss). Overture, “Light Cavalry” (Suppé). Japanese Dance (Yoshitomo). Songs: (a) Melody (James Hanley). (b) Une petite bise (Stravsky). Flute and Orchestra: Les échos des bois (Damaré). Selection, “Mam’zelle Nitouche” (Hervé).

BRUSSELS (No. 2), 9.0—Symphony Orchestra. Mme. Maelfeyt-Rovies (Songs). Petit air de danse (Soudan). Cantabile (Soudan). Joie (Soudan). Songs (Beethoven): (a) May Song. (b) Adelaide, (c) Neue Liebe. Fantasia for Orchestra (Daneau). Three Songs (Meulemans). Scènes florentines (Godard).

BUDAPEST, 9.30—Records.

COLOGNE, 9.0—“Christmas Eve Programme” (contd. from 8.20).

DEUTSCHLANDSENDER, 9.0—Extracts, “Hänsel and Gretel” (Humperdinck) (contd. from 8.20). 9.15—Christmas Music. 9.45—Weather.

FRANKFURT, 9.0—“Christmas in the Mountains”—Station Orchestra, with Commentary. Conductor: Rosbaud. Anita Franz (Soprano). Anton Maria Topitz (Tenor). 9.30—Christmas Concert (on Records).

HAMBURG, 9.0—Military Band. March, Frohe Weihnachtszeit (Roick). Christmas Festival Overture (Neh). Eine Muh—eine Mäh (Lindemann). Waltz, Golden Rain (Waldteufel). Petersburger Schlittenfahrt (Eilenberg). Overture, “Nakiris Hochzeit” (Lincke). Pesther Walzer (Lanner). March (Keil).

HILVERSUM, 9.5—Residentie Orchestra. Conductor: Gebert. Symphony No. 5 in E minor (Tchaikovsky). Printemps (Debussy). Extracts, “Lohengrin” (Wagner). In the Interval at 9.50: Dramatic Programme.

HUIZEN, 9.0—Christmas Concert (contd. from 7.45). 9.10—Vincent (Carillon), from the Royal Palace, Amsterdam. 9.40—News; Records.

JUAN-LES-PINS (Radio Côte d’Azur), 9.0—Dramatic Programme.

KÖNIGSBERG, 9.0—“The Königsberg Station greets its Listeners” (contd. from 8.20).

LEIPZIG, 9.0—“Praise Good Things”—A Musical Sequence for Young and Old (Scheitler-Sammler). 9.40—Günther Ramin, Organ Recital from St. Thomas’. Improvisations on the Carol, “Vom Himmel hoch” (Ramin). Fantasia and Fugue on “Wie schön leucht uns der Morgenstern” (Reger).

LYONS (La Doua), 9.0—Christmas Music.

MADRID (EAJ7), 9.0—Christmas Carols (contd. from 8.30).

MOSCOW (No. 1), 9.0—Chimes. 9.5—English Programme: (a) Talk: A Journey through the Caucasus, (b) Letter-box.

MUNICH, 9.0—“Heilige Nacht” (Ludwig Thoma) (contd. from 8.20). 9.10—See 9.0 Frankfurt. 9.30—See Frankfurt.

PARIS (Poste Parisien), 9.5-9.35—Concert. 9.50—Music Hall.

PARIS (PTT), 9.0—Symphony Concert (contd. from 8.45).

PARIS (Radio-Paris), 9.0—See 8.45 Paris (PTT).

PRAGUE, 9.0—See 8.35 Brno. 9.10—Talk on the following Transmission. 9.15—International Relay: “Peace to Men of Good Will”—Part II.

9 p.m. (contd.)

RADIO - NORMANDIE, 9.0—Christmas Music. 9.15—Lottery Results.
ROME, 9.0—Concert (contd. from 8.30). 9.15—Bach, Beethoven and Adam Concert.
SOTTENS, 9.0—Bach Concert (contd. from 7.30). 9.15—"Guibour, a Miracle of Our Lady" (adapted by Goudal).
STOCKHOLM, 9.0—Request Records.
STRASBOURG, 9.0—Christmas Variety (contd. from 8.30).
STUTTART, 9.0—See Frankfurt.
TOULOUSE (Radio-Toulouse), 9.0—Chimes. 9.5—Concert Version, "Un soir de reveillon" (Moretti).
TURIN, 9.0—See 8.30 Rome. 9.15—Christmas Fantasia.
VIENNA, 9.0—Christmas Carols of Many Lands (contd. from 8.5). 9.15—Christmas Concert. Choirs. Conductor: Grossmann. Raab Soprano and Wendt (Trumpet). Pastoral Music, "The Messiah" (Handel). A-Capella Choir: (a) Laudate Dominum (Bonamico), (b) Motet, Mich wundert, dass du darfst den Tag so sehr verlangen (Kraft). Folk Songs for Boys' A-Capella Choir (arr. Scholtys): (a) Es blühen drei Rosen, (b) O Jesulein zart. Folk Songs for A-Capella Choir (arr. Scholtys): (a) Dort oben vom Berge, (b) Dort unten auf grüner Heiden. Christmas Carols for Mixed Choir, Guitar and Solo Instruments (arr. Rebay). Cantata No. 51, "Jauchzet Gott in allen Landen," for Soprano Boys' Choir, Orchestra Organ and Continuo (Bach).
WARSAW, 9.5—Records.

10 p.m.

ALGIERS, 10.0—"Manon"—Opera (contd. from 9.15).
ATHLONE, 10.0—Variety. 10.30—News. 10.40—Irish Songs, by Stan O'Brien.
BARCELONA, 10.0—News. 10.5—Monreal (Pianoforte). 10.30—Partayas (Tenor).
BERLIN, 10.0—Christmas Eve—Gala Variety (contd. from 7.0).

BEROMÜNSTER, 10.30—Readings. 10.50—Midnight Mass, from Coire Cathedral.
BORDEAUX-LAFAYETTE, 10.0—Christmas Programme.
BRESLAU, 10.0—See Stuttgart.
BRNO, 10.25—Orchestra. Conductor: Hanousek.
BRUSSELS (No. 1), 10.0—News. 10.10—Dance Music.
BRUSSELS (No. 2), 10.0—News. 10.10—Dance Records.
BUDAPEST, 10.0—Records. 10.55—Carillon, from the Pálos Monastery.
COLOGNE, 10.0—"Christmas Eve Programme" (contd. from 8.20).
DEUTSCHLANDSENDER, 10.0—Christmas Music (contd. from 9.15).
FRANKFURT, 10.0—Christmas Concert (on Records).
HAMBURG, 10.0—See Stuttgart.
HILVERSUM, 10.0—Residentie Orchestra (contd. from 9.5). 10.40—Records.
HUIZEN, 10.0—Records. 10.40—Christmas Service from Amsterdam.
KÖNIGSBERG, 10.0—See Stuttgart. 10.50—Light Music.
LEIPZIG, 10.0—"The Dream Song of Olav Aasteson"—Norwegian Folk Legend, with Old Music. 10.40—"Winter in the Mountains"—Report, from the Erzgebirge.
MOSCOW (No. 1), 10.5—Hungarian Talk: Winter on a Collective Farm.
MUNICH, 10.0—See Stuttgart.
PARIS (Poste Parisien), 10.0—Variety.
PARIS (PTT), 10.0—Symphony Concert (contd. from 8.45).
PARIS (Radio-Paris), 10.0—See 8.45 Paris (PTT). 10.30—Christmas Eve Programme.
PRAGUE, 10.0—Orchestra. Conductor: J. Hradky. Overture, "Nebuchadnezzar" (Verdi). Lullaby (Handel). Ave Maria (Schubert). Coronation March, "The Prophet" (Meyerbeer). 10.25—See Brno. 10.55—Chimes.
SOTTENS, 10.5—Old Spanish Christmas Carols. Mme. Nelly Crestilat. 10.15—Records: Christmas Carols. 10.25—Records. 10.35—Reading: The Nativity. 10.40—Vespers from St. Joseph's Church, Geneva.
STRASBOURG, 10.0—Christmas Variety (contd. from 8.30). 10.45—

Christmas Eve Service from the Temple Neuf.
STUTTART, 10.0—"A Family Christmas"—Play (Hofmeier). 10.50—"Listen, a Step in the Snow I"—Christmas Eve Programme.
TOULOUSE (Radio-Toulouse), 10.0—Christmas Programme for Children. 10.15—News. 10.30—"La Fête des Cloches"—Fantasy.
TURIN, 10.0—News. 10.10—News in Spanish. 10.15—Christmas Carols. 10.50—Midnight Mass.
VIENNA, 10.0—News. 10.20—Organ Recital by Franz Schütz. Prelude and Fugue in A (Franz Schmidt). Kommst du nun, Jesus, vom Himmel herunter (Bach). Weihnachten (Reger). Nun danket alle Gott (Franz Schmidt). 10.40—Fanfare from St. Stephen's Cathedral. 10.50—Part Relay of Midnight Mass from the Tauern (Alpine Church).
WARSAW, 10.0—Records. 10.30—For Poles Abroad.

11 p.m.

ALGIERS, 11.0—"Manon"—Opera (contd. from 9.15). 11.45—Midnight Mass from St. Augustine's Church.
BARCELONA, 11.0—Dance Music.
BERLIN, 11.0—See Stuttgart.
BEROMÜNSTER, 11.0—Midnight Mass (contd. from 10.50).
BORDEAUX-LAFAYETTE, 11.0—Christmas Programme 11.50—See Strasbourg.
BRATISLAVA, 11.0—Midnight Mass from the Cathedral.
BRESLAU, 11.0—See Stuttgart.
BRUSSELS (No. 1), 11.0—Dance Music.
BRUSSELS (No. 2), 11.0—See Brussels (No. 1).
BUDAPEST, 11.0—Midnight Mass from the Regnum Marianum Chapel.
COLOGNE, 11.0—Midnight Mass from the Franciscan Church, Münster.
DEUTSCHLANDSENDER, 11.0—See Stuttgart.
FRANKFURT, 11.0—See Stuttgart.
HAMBURG, 11.0—See Leipzig.

12 midnight

HILVERSUM, 11.0—Records. 11.10—11.40—Talk by Mlle. N. A. Bruining: "The Meaning of Christmas. Annie Woud (Contralto) and Horst (Pianoforte).
HUIZEN, 11.0—Service (contd. from 10.40).
KÖNIGSBERG, 11.0—See Leipzig.
LEIPZIG, 11.0—"Und es waren Hirten auf dem Felde"—Part II of the Christmas Oratorio (Bach), relayed from St. Thomas's Church. The Gewandhaus Choir and Leipzig Municipal Orchestra. Conductor: Günther Ramin. Helene Kunze (Soprano), Henriette Lehne (Contralto), Hoffmann (Tenor), Göpel (Bass), Heintze (Harpischord) and Fest (Organ).
MUNICH, 11.0—See Stuttgart.
PARIS (PTT), 11.0—Dramatic Programme, Act III, "Le chemin de la Richepin"; Christmas Stories. 11.50—See Strasbourg.
PARIS (Radio-Paris), 11.0—Christmas Eve Programme.
PRAGUE, 11.0—See Bratislava.
RADIO-NORMANDIE, 11.0—Records. 11.15—Midnight Mass relayed from the Cathedral, Rouen.
SOTTENS, 11.0—Midnight Mass from St. Joseph's Church, Geneva.
STRASBOURG, 11.0—Service (contd. from 10.45). 11.50—Midnight Mass relayed from the Cathedral.
STUTTART, 11.0—Midnight Mass from the Benedictine Abbey, Beuron.
TOULOUSE (Radio-Toulouse), 11.0—"La Fête des Cloches"—Fantasy (contd. from 10.30). 11.15—Orchestra. 11.30—Christmas Carols. 11.55—News.
TURIN, 11.0—Midnight Mass (contd. from 10.50).
VIENNA, 11.0-11.30—Midnight Mass (contd. from 10.50).
WARSAW, 11.0—Midnight Mass from Jasna Jora Monastery, Czestochowa.

MONDAY Dec. 24

BERLIN, 12.0-12.30—See 11.0 Stuttgart.
BORDEAUX-LAFAYETTE, 12.0—See 11.50 Strasbourg.
BRATISLAVA, 12.0—Midnight Mass (contd. from 11.0).
BRESLAU, 12.0-12.30—See Stuttgart.
COLOGNE, 12.0—Midnight Mass (contd. from 11.0).
DEUTSCHLANDSENDER, 12.0—See 11.0 Stuttgart.
KÖNIGSBERG, 12.0-12.35—See 11.0 Leipzig.
LEIPZIG, 12.0-12.35—"The Christmas Oratorio" (Bach) (contd. from 11.0).
MUNICH, 12.0-12.30—See 11.0 Stuttgart.
PARIS (Poste Parisien), 12.0—Dance Records.
PARIS (PTT), 12.0—See 11.0 Strasbourg.
PARIS (Radio-Paris), 12.0—Christmas Eve Programme. 12.30—Derouve Dance Band.
PRAGUE, 12.0—See 11.0 Bratislava. 12.15-12.17—Christmas Greeting (on Records).
SOTTENS, 12.0-12.30—Midnight Mass (contd. from 11.0).
STRASBOURG, 12.0—Midnight Mass (contd. from 11.50).
STUTTART, 12.0—Midnight Mass (contd. from 11.0).
TOULOUSE (Radio-Toulouse), 12.0—Midnight Mass from St. Sernin. 12.45—Dance Music. Guttinguer, Martinez and Quentin Dance Bands.

1 a.m. (Tuesday)

BUDAPEST, 1.0—Philharmonic Orchestra (on Records).
PARIS (Poste Parisien), 1.0—Dance Records.
PARIS (Radio-Paris), 1.0—Derouve Dance Band.
TOULOUSE (Radio-Toulouse), 1.0—Dance Music.

NATIONAL

For Time Signals, see Monday
10.30 a.m. (Droitwich)—Weather Forecast for Farmers, etc.
10.45 (Droitwich)—Christmas Morning Service relayed from St. George's Chapel, Windsor.
11.30—Scottish Studio Orchestra.
12.30 p.m.—Cinema Organ (Sydney Torch).
1.0—Joseph Muscant and Troxy Grand Orchestra. March Medley (arr. Muscant). Waltz Pot-pourri (arr. Muscant). Three Bears (Coates). A Local Train Journey (Rathke). Pot-pourri of Kotelbey's Music (arr. Muscant).
1.55—Empire Exchange. Prologue: The Bells of Bethlehem echoed by Bells of the British Commonwealth. 2.0—Greetings and Sound-pictures depicting Christmas in all parts of the British Commonwealth.
3.0—A Message from H.M. the King relayed from Sandringham. God Save the King.
3.15—Eugene Pini and his Tango Orchestra.
3.55—John Armstrong (Tenor).
4.15—B.B.C. Northern Orchestra.
5.15—Ambrose and his Embassy Club Orchestra.
6.0—Sports Bulletin.
6.10—Cinema Organ (Harold Ramsay).
6.30—Amers' Military Band. Sumner Austin (Baritone).
7.30—A Christmas Party! Comedians, Dance Music, Ghost Stories, Chorus Songs, Charades and Musical Games, etc., etc.
9.30—News Summary.
9.40—Wireless for the Blind. A Voice from the Dark: an appeal on behalf of the British "Wireless for the Blind" Fund by an Unknown Blind Man.
9.50—The Boyd Neel Orchestra. Conductor, Boyd Neel. Music for Christmas Night. Concerto for Cantata No. 142, Unto us a Child is Born (Bach). Concerto for Christmas Night (Corelli). Alleluia Symphony (No. 30 in C) (Haydn). Concerto for Christmas Night (Manfredini). The Flight into Egypt (The Childhood of Christ) (Berlioz).
10.55—"Christmas with Sir Roger," by Joseph Addison. Read by Hubert Gregg.
10.12.0 (Droitwich)—Billy Cotton and his Band.

REGIONAL

For Time Signals, see Monday
10.30-11.30 a.m. (except Midland; Scottish till 10.45)—Droitwich; 11.0 (Scottish)—Service from Peebles Old Parish Church.
11.30 (Scottish from 11.45)—Records: Act II of "La Bohème" (Puccini).
12.15 p.m.—Amington Band. Michael North (Entertainer).
1.15—The John MacArthur Quintet. 1.55-3.15—National Programme.
3.15—Torquay Municipal Orchestra. Henry Wendon (Tenor). Orchestra: Selection of Traditional Melodies, The Rose (Myddleton); A Dream of Christmas (Ketelbey). Henry Wendon and Orchestra: Lohengrin's Farewell (Wagner). Orchestra: Fantasy, Cinderella (Coates). Henry Wendon: An English Rose (Merrie England) (Edward German). Orchestra: A Dream Fantasy, Christmas Memories (Finck).
4.15—Variety Records.
4.45—Vario Trio.
5.15—The Children's Hour.
6.0 (ex. North)—Reginald King and his Orchestra.
6.0 (North)—Cinema Organ.
6.45—"All at Sea." A burlesque by The Melluish Brothers.
7.30 (ex. Scottish)—B.B.C. Orchestra (Section E), conducted by Warwick Braithwaite. Douglas Cameron (Cello). Orchestra: Prelude, Children of the King (Humperdinck). Douglas Cameron and Orchestra: Variations Symphoniques, Op. 23 (Boëllmann). Orchestra: Suite, Wand of Youth, No. 2 (Elgar). Douglas Cameron: The Holy Boy (Carol of the Nativity) (arr. Ireland); Piece in the form of a Habanera (Ravel); Andaluzza, Granadina (Nin); Orchestra: Suite, Christmas Night (Rimsky-Korsakov).
7.30 (Scottish)—Excerpts from "Rip Van Winkle," relayed from the Theatre Royal, Edinburgh.
8.30 (Scottish)—Records.
8.45—"The Christmas Journey." A Masque of the Nativity compiled and arranged by M. H. Allen and C. Denis Freeman. Music chosen and composed by Fredrick Stevens.
9.30—News Summary.
9.40—National Programme.
9.50—Lew Stone and his Band.
10.50-12.0 (Midland till 11.0)—Billy Cotton and his Band.

TUESDAY December 25

PRINCIPAL EVENTS

SERVICES AND SACRED MUSIC

A.M.
10.30 Leipzig, etc.: Christmas Cantata (Bach).
P.M.
2.10 Huizen: Christmas Oratorio (Bach).
5.0 Oslo: Organ, choir, orchestra.
8.0 Brussels, No. 2: Christmas Cantata (Peeters).
8.0 Warsaw: Carols of Europe.

SYMPHONY CONCERTS

P.M.
7.0 Frankfurt: Mozart programme.
7.0 Leipzig: Bach, Haydn, etc.
7.0 Stockholm: Swedish programme.
8.0 Brussels No. 1: Christmas music.
9.55 Hilversum: Beethoven violin concerto.

OPERETTAS

P.M.
7.0 Hamburg: "Little Dorrit" (Künneke).
7.0 Vienna: "A Night in Venice" (Strauss).

CHAMBER MUSIC

P.M.
1.0 Stockholm: Chamber orchestra.
2.35 Vienna: Quartet (Franz Schmidt).
9.30 Kalundborg: Quintet (Mozart).

RÉCITAUX

P.M.
1.10 Hilversum: Jo Vincent, French carols.
2.30 Budapest: Violin, guitar.
4.0 Prague: Carols.
6.20 Vienna: Jaro Prohaska (Baritone).
7.5 Bucharest: Carols.
8.45 Radio-Paris: Opera excerpts.
9.0 Budapest: Liszt, Christmas music.

PLAYS

P.M.
3.50 Hamburg: Nativity play.
7.0 Beromünster: A play with music.
7.0 Breslau: Silesian Christmas play.
7.0 Budapest: A Dickens adaptation.
7.0 Oslo: "The Prodigal's Return" (Gide).
7.30 Sottens: Nativity play.
7.55 Hilversum: Christmas play with music.

DANCE MUSIC

P.M.
3.40 Vienna; 4.0, Warsaw; 5.15, Budapest; 7.10, Königsberg; 9.30, Hamburg, etc., Warsaw; 10.30, Paris (PTT), Radio-Paris; 11.0, Frankfurt, Stuttgart; 11.30, Vienna: B.B.C. records.

MISCELLANEOUS

P.M.
5.0 German stations exchange greetings.
6.30 Kalundborg: Europe's Christmas greetings.
7.0 Radio-Paris: Circus.
8.10 Czech stations: Christmas programme.

TUESDAY Dec. 25

Hours of Transmission in Greenwich Mean Time

Monte Ceneri is not transmitting today.

6 a.m.

BERLIN, BRESLAU, DEUTSCHLANDSENDER, FRANKFURT, KÖNIGSBERG, LEIPZIG, MUNICH and STUTTGART, 6.0—See Hamburg. COLOGNE, 6.0—Protestant Service. 6.40—"Christnacht"—Cantata (Wolf). Station Chamber Choir, Orchestra and Soloists. HAMBURG, 6.0—Harbour Concert from s.s. "New York." PRAGUE, 6.0—Music; News. STOCKHOLM, 6.0—Service.

7 a.m.

BERLIN, 7.0-7.15—See Hamburg. 7.25—Hymn. 7.30—"Au die Freude"—Sequence. 7.55—Christmas Day Service. Carillon from the Garrison Church, Potsdam; Bach Music; Sermon; Carillon from Berlin Cathedral. BRESLAU, 7.0—See 6.0 Hamburg. 7.15—Greetings. 7.25—Organ. COLOGNE, 7.0—Records. DEUTSCHLANDSENDER, 7.0—See 6.0 Hamburg. 7.15—Records. 7.55—Festival Programme. FRANKFURT, 7.0—See 6.0 Hamburg. 7.15—"Weihnachtsmysterium" (René Wirtz). 7.45—Fanfare. HAMBURG, 7.0—Harbour Concert (contd. from 6.0). 7.15—News; Gym. 7.45—Carols. HILVERSUM, 7.40—Records. HUIZEN, 7.10—Service. KALUNDBORG, 7.25—Sacred Music. KÖNIGSBERG, 7.0-7.15—See 6.0 Hamburg. LEIPZIG, 7.0—See 6.0 Hamburg. 7.30—Chimes. 7.35—Service. MUNICH, 7.0-7.15—See Hamburg. 7.30—Chamber Orchestra and Soloists. PARIS (Radio-Paris), 7.0—Records; News; Gym. PRAGUE, 7.0—Records. 7.45—For Workers. STOCKHOLM, 7.0—Service (contd. from 6.0). STUTTGART, 7.15—See 6.0 Hamburg.

8 a.m.

BERLIN, 8.0—Christmas Day Service (contd. from 7.55). BRESLAU, 8.0—Carillon. 8.5—Service. COLOGNE, 8.0—Records. 8.30—Pontifical High Mass from the Cathedral. DEUTSCHLANDSENDER, 8.0—Festival Programme. HAMBURG, 8.0—Protestant Service. 8.45—See Stuttgart. 8.0-8.50—Orchestra, with Rhymed Commentary. Conductor: Sosen. HILVERSUM, 8.0—Records. 8.10—Service; Records. HUIZEN, 8.0—Service (contd. from 7.10). 8.10—Religious Programme. KALUNDBORG, 8.0—Sacred Music. 8.20-8.50—Carols. KÖNIGSBERG, 8.30—Service. LEIPZIG, 8.0—Choir. MUNICH, 8.0—Chamber Orchestra and Soloists. 8.30—Roman Catholic Service. PARIS (Radio-Paris), 8.0—Records. PRAGUE, 8.5—Records. 8.15—Meditations (Josef Bohuslav Foerster). 8.30—Mass from St. Guy's Cathedral. STOCKHOLM, 8.0—Service (contd. from 6.0). STUTTGART, 8.0—Protestant Service. 8.45—Concert. TURIN, 8.40—News. VIENNA, 8.0—Records. 8.30—Pontifical High Mass from St. Stephen's Cathedral. WARSAW, 8.0—Records; Gym.

9 a.m.

BEROMÜNSTER, 9.0—Protestant Service. 9.45—Old French Chamber Music. BRESLAU, 9.0—Reading (Hoinkis). 9.25—Chamber Music. BUDAPEST, 9.0—High Mass. COLOGNE, 9.0—High Mass (contd. from 8.30). 9.30—String Quartet. DEUTSCHLANDSENDER, 9.5—Talk: Bethlehem To-day. FRANKFURT, 9.0—See Stuttgart. 9.30—Choir. HILVERSUM, 9.0—Records. 9.10—Christmas Music. Organ, Tenor and Oboe. 9.40—Service. HUIZEN, 9.0—Religious Programme. 9.10—Pontifical High Mass. KALUNDBORG, 9.0—Service from the Garrison Church.

KÖNIGSBERG, 9.0—Service (contd. from 8.30). LEIPZIG, 9.0—Choir. 9.30—Records. MUNICH, 9.0—Roman Catholic Service (contd. from 8.30). 9.10—Chimes from the Frauenkirche. 9.15—"Christmas in the Trenches"—Readings from War Letters. 9.50—"Christmas in Franconia"—Dialect Play (Fey). OSLO, 9.0—Chimes. 9.20—Service. PARIS (Poste Parisien), 9.0-9.25—Records. 9.50—High Mass from the Church of the Sacred Heart, Montmartre. PRAGUE, 9.0—Mass (contd. from 8.30). 9.30—"Christmas"—Sequence in Verse. SOTTENS, 9.0—Service. STOCKHOLM, 9.0—Records: "The Messiah"—Oratorio (Handel). STUTTGART, 9.0—Concert. 9.30—See Frankfurt. VIENNA, 9.0—High Mass (contd. from 8.30). 9.15—Light Music. WARSAW, 9.20—Carols. 9.30—High Mass from the Cathedral of St. John.

10 a.m.

BERLIN, 10.30—See Leipzig. BEROMÜNSTER, 10.30—Christmas Address. BRESLAU, 10.0—Chamber Music (contd. from 9.25). 10.30—See Leipzig. BRUSSELS (No. 1), 10.0—Records, Mass in B minor (Bach). BRUSSELS (No. 2), 10.0—Records. BUDAPEST, 10.0—High Mass (contd. from 9.0). 10.30—Protestant Service. COLOGNE, 10.0—Quartet (contd. from 9.30). 10.10—Talk: The Christmas Rose. 10.30—See Leipzig. DEUTSCHLANDSENDER, 10.0—Literary Talk. 10.30—See Leipzig. FRANKFURT, 10.0—Carols. 10.30—See Leipzig. HAMBURG, 10.0—Organ and Songs. 10.30—See Leipzig. HILVERSUM, 10.0—Service (contd. from 9.40). 10.10—Carols. 10.40—Talk. HUIZEN, 10.0—High Mass (contd. from 9.10). 10.25—Records. KALUNDBORG, 10.0—Service (contd. from 9.0). 10.30—News. KÖNIGSBERG, 10.0—Relay of European Stations. 10.30—See Leipzig. LEIPZIG, 10.0—Records. 10.30—"Dazu ist erschienen der Sohn Gottes"—Cantata (Bach) by the Municipal and Gewandhaus Orchestras. St. Thomas' Choir and Soloists. Conductor: Dr. Karl Straube. MUNICH, 10.0—"Christmas in Franconia" (contd. from 9.50). 10.30—See Leipzig. PARIS (Poste Parisien), 10.0—High Mass (contd. from 9.50). PRAGUE, 10.0—Nedbal Concert. SOTTENS, 10.0—Records. STOCKHOLM, 10.0—Service. STRASBOURG, 10.0—Protestant Service. STUTTGART, 10.0—See Frankfurt. 10.30—See Leipzig. TURIN, 10.0—Missa Cantata from the Basilica of the Annunciation, Florence. VIENNA, 10.0—Reading (Paul Keller). 10.20—"Heilige Nacht"—A Christmas Mystery Play (Ludwig Thoma) with Music by Lafite. WARSAW, 10.0—Service (contd. from 9.30).

11 a.m.

BERLIN, 11.0—See Königsberg. BEROMÜNSTER, 11.0—Records. 11.30—News. 11.40—Orchestra. BRESLAU, 11.0—Records. 11.30—Part-Relay of the Christmas Service from the Oldest German Lutheran Church in Baltimore, U.S.A. BRUSSELS (No. 1), 11.0—Records: Mass in B minor (Bach). BUDAPEST, 11.0—Protestant Service (contd. from 10.30). 11.40—Opera House Orchestra. Conductor: Berg. COLOGNE, 11.0—See Königsberg. DEUTSCHLANDSENDER, 11.0—Greetings. 11.10—See 11.0 Frankfurt. FRANKFURT, 11.0—Orchestra. Conductor: Creutzburg. HAMBURG, 11.0—See Frankfurt. HILVERSUM, 11.0—Talk. 11.10—A.V.R.O. Octet. Lensky (Violin). Nativity Concerto in Pastorale Form (Torelli). Three Christmas Chorals (Bach). Violin Concerto (Telemann). 11.35—Four Old Dutch Christmas Carols (Hespe), by a Boys' Choir. Conductor: The Composer. 11.50—A.V.R.O. Octet. Extracts, Old German Masters' Suite (Saar). Four Old French Christmas Carols (arr. Schmidt). Overture, "Euristeo" (Hasse).

HUIZEN, 11.0—Records. 11.10—K.R.O. Orchestra. KALUNDBORG, 11.0—Chimes. 11.2—Hansen Instrumental Ensemble. Overture, "Euristeo" (Hasse). Arioso (Bach). Selection, "The Magic Flute" (Mozart). Romance in F (Sibelius). Scherzo, String Quartet in E flat (Schubert). Adagio (Mozart). 11.50—Reading (Barthe). KÖNIGSBERG, 11.0—Opera House Orchestra. Conductor: Brückner. LEIPZIG, 11.0—Concert. PARIS (Poste Parisien), 11.0—High Mass (contd. from 9.50). PRAGUE, 11.0—Chimes. 11.5—News. 11.15—Military Band. ROME, 11.30—Records. SOTTENS, 11.0—Records. 11.30—News. 11.40—Records. STOCKHOLM, 11.0—Service. STRASBOURG, 11.0—Protestant Service (contd. from 10.0). 11.15—Records. 11.30—Roman Catholic Service. Address by the Bishop of Strasbourg; Baritone Solos. STUTTGART, 11.0—See Frankfurt. TURIN, 11.30—Records. 11.45—News. VIENNA, 11.0—Christmas Mystery Play (contd. from 10.20). 11.20—Vienna Symphony Orchestra. Conductor: Schönherr. Rosner (Violin). WARSAW, 11.0—Fanfare. 11.3—Records.

12 noon

BERLIN, 12.0—See 11.0 Königsberg. BEROMÜNSTER, 12.0—Orchestra. 12.30—Choir. BRESLAU, 12.0—Classical Records. 12.50—For Young People. BRUSSELS (No. 1), 12.0—Carillon Recital from St. Rombaut's Cathedral, Malines. Minuit, chrétiens (Adam). Three Old Carols: (a) Il est né, le divin enfant, (b) Chantons, je vous en prie, (c) Sixteenth Century Carol. Carol with Variations, A la venue de Noël (Baltaire). Two Old Carols: (a) Door de liefde wilt ontwekken, (b) Ny syt willecome. Adeste fideles. 12.30—Radio Orchestra. Conductor: Gilson. Conte pastoral (Godard). Old Songs (Broustet). Bohemian Songs (Fétras). Canzonetta (Pierini). Old English Melodies (Humphries). BRUSSELS (No. 2), 12.0—Records. BUCHAREST, 12.0—Sibiceano Orchestra. BUDAPEST, 12.0—Opera House Orchestra (contd. from 11.40). COLOGNE, 12.0—See 11.0—Königsberg. DEUTSCHLANDSENDER, 12.0—For Young People. 12.10—Humorous Musical Items by Krug. FRANKFURT, 12.0—"Christmas in the Trenches"—Stories by Soldiers. 12.15—Records. HAMBURG, 12.5—For Young People. 12.15—See 12.0 Munich. HILVERSUM, 12.0—A.V.R.O. Octet (contd. from 11.50). 12.30—Records. 12.40—A.V.R.O. Octet. Veer (Pianoforte). German Dances (Schubert). Concerto after a Sonata of Bach (Mozart). Andante and Scherzo in the Form of a Canon (Henschel). Marche de la Caravane (Grétry). HUIZEN, 12.0—K.R.O. Orchestra. KALUNDBORG, 12.0—Reading. 12.10—Hansen's Instrumental Ensemble. Sonata in D minor (Vivaldi). Ave Maria (Schubert). Minuet in G (Beethoven). Andante (Mozart). Winter (Svendsen). Minuet, "Le Bourgeois gentilhomme" (Lully). Elegy (Ramm). Selection, "King and Marshal" (Heise). KÖNIGSBERG, 12.0—Orchestra (contd. from 11.0). LEIPZIG, 12.0—Military Band. MUNICH, 12.0—Munich Symphony Orchestra. Conductor: Ebner. Overture, König Manfred (Reinecke). Extract, "Hänsel and Gretel" (Humperdinck). Fairy Tale Pictures (Bendel): (a) Little Red Riding Hood, (b) Snow White. Waltz, "The Sleeping Beauty" (Tchaikovsky). Selection, "Die Puppenfee" (Bayer). Scenes, "Die Christrose" (Ebner). Overture, "The Arabian Nights" (Strauss). OSLO, Christmas Carols. Boys' Choir with Orchestra. PARIS (Poste Parisien), 12.5—Station Orchestra. 12.25—News. 12.35—Station Orchestra. PARIS (PTT), 12.0—Tourist Report. 12.15—Concert. PARIS (Radio-Paris), 12.0—Symphony Concert. Conductor: Letombe. Entry of the Gladiators (Füchik). Contemplation (Ganne). Balabile (Ganne). Overture, "The Daughter of the Regiment" (Donizetti). La Zamacueca (Rieter). Ballet Music, "Les deux pigeons" (Messager). Prelude, "Thamara" (Bourgalet-Ducoudray). Overture,

"Galathée" (Massé). Suite pittoresque (Massenet). Extracts, "The Damnation of Faust" (Berlioz). PRAGUE, 12.0-12.30—Military Band. ROME, 12.0—News. 12.5—See Turin. In the Interval at 12.35: News; Exchange. SOTTENS, 12.0—Records. STRASBOURG, 12.0—Orchestra. Prelude, Waltz and Serenade (Rachmaninov). Overture, "Véronique" (Messager). Songs: (a) La Vierge à la crèche (Franck), (b) Le mariage des roses (Franck). Extracts, "La Vierge" (Massenet). 12.30—News; Records. STUTTGART, 12.0—Topical Talk. 12.15—See Frankfurt. TURIN, 12.0—News. 12.5—Natus Orchestra. In the Interval at 12.35: Records. VIENNA, 12.0—Orchestra (contd. from 11.20). WARSAW, 12.0—Talk. 12.15—Records (contd. from 11.3). 12.30—For Children.

1 p.m.

BERLIN, 1.0—Sports Notes. 1.15-1.25—For Young People. BEROMÜNSTER, 1.0-1.30—Choir and Monologues (contd. from 12.30). BRESLAU, 1.0—News. 1.10—Greetings. 1.15—"Martha, Martha, du entschwendest"—Humorous Sequence with Flotow Records (arr. Pott). BRUSSELS (No. 1), 1.0—News. 1.10—Records. BRUSSELS (No. 2), 1.0—News. 1.10—Orchestra. Conductor: Walpot. Prelude (Vidal). Cantique de Noël (Adam). Canzone della Mama (Corti). Records: Sacred Music. Romance in F (Beethoven). Adagio from the Symphony in C minor (Saint-Saëns). Panis Angelicus (Franck). BUDAPEST, 1.0—Records COLOGNE, 1.0—Young People. 1.10—Christmas Music. Milli Engelmann-Gillrath (Soprano). Kreuter (Violin). Rummel (Pianoforte). 1.45 For Young People. DEUTSCHLANDSENDER, 1.0—"Christmas Dream"—Play for Children. 1.45—"German Christmas"—Sequence (Else Möbus). FRANKFURT, 1.0—Records. 1.30—Sacred Music from Ibenstadt. Station Choir; Reinhold Merten (Organ). HAMBURG, 1.0—Stories and Songs by Girls. HILVERSUM, 1.0—Pianoforte Recital (contd. from 12.40). 1.10—French Christmas Carols, Jo Vincent. 1.40—The Socialist Party's Christmas Festival from the Concertgebouw, Amsterdam. Choir. Conductor: Krelage. Wiggelaar (Violin) and Jong (Organ). Address. Socialist Songs. Talk: Christmas. Violin and Organ Music. Talk: Christmas. Socialist Songs. Address. HUIZEN, 1.0-1.40—K.R.O. Orchestra. 1.55—Records. KALUNDBORG, 1.0—Service from Christiansborg Castle Church. KÖNIGSBERG, 1.0—For Young People. 1.10—Christmas Service relayed from the Oldest German Lutheran Church in Baltimore, U.S.A. 1.40—Talk: Christmas in the South American Backwoods. 1.55—Unfamiliar Records. LEIPZIG, 1.15—"Christmas through the Ages"—Concert of Carols Station Chamber Choir and Children's Choir. MUNICH, 1.0—See Frankfurt. 1.15—Records. PARIS (Poste Parisien), 1.0—Station Orchestra. PARIS (PTT), 1.0—News. 1.15—Concert. PARIS (Radio-Paris), 1.0—Concert (contd. from 12.0). 1.30—Opéra-Comique: (a) "Le pré aux clercs" (Hérold), (b) "Le Sour" (Adam). ROME, 1.0-1.15—See Turin. STOCKHOLM, 1.0—Station Chamber Orchestra. Conductor: Wilhelm. Sonata in G minor (Handel-Wilhelm). Concerto in F for Strings (Lully). Adagio, "L'Arlesienne" (Bizet). Serenade in D for Strings (Mozart). STUTTGART, 1.0—See Frankfurt. TURIN, 1.0-1.15—Natus Orchestra. WARSAW, 1.0—Adamska - Grossman Orchestra.

2 p.m.

BERLIN, 2.0—"In Praise of Winter"—Sketch. 2.25—Old Carols. (Boyce, Rosetti, and Fasch). BRESLAU, 2.0—Humorous Sequence, with Flotow Records (contd. from 1.15). 2.15—"Klick aus dem Spielzeugladen"—Play (Schnack).

BUDAPEST, 2.0—Talk. 2.30—Violin and Guitar Recital. COLOGNE, 2.0—For Young People. 2.30—Guitar Recital (Ida Gilie, Helen Kempkes). 2.50—Reading. DEUTSCHLANDSENDER, 2.0—"German Christmas"—Sequence (contd. from 1.45). 2.10—Christmas Music, Old and New. Station Chamber Choir. FRANKFURT, 2.0—For Children. HAMBURG, 2.0—Orchestra and Military Band. HILVERSUM, 2.0—Socialist Party's Christmas Festival (contd. from 1.40). HUIZEN, 2.0—Records. 2.10—Christmas Oratorio (Bach). Harlem Mixed Choir and Residentie Orchestra. Conductor: Jan Booda. Theodora Versteegh (Soprano), Georg Walter (Tenor) and Willem Ravelli (Bass). KALUNDBORG, 2.0—Service (contd. from 1.0). 2.30—Radio Orchestra. Conductor: Mahler. Hedvig Bus (Songs). Overture and Pastoral, "The Messiah" (Handel). Movements, Concerto grosso in D (Handel). Tafelmusik (Telemann). Overture, "The Magic Flute" (Mozart). Six Christmas Carols (Cornelius). Overture, "Coriolanus" (Beethoven). Minuet for Strings (Schubert). Serenade in A (Brahms). Overture, "Oberon", (Weber). KÖNIGSBERG, 2.0—Records. 2.10 Ramble Hints. 2.20—"Das Märchen vom Schön-Margret"—Play (Brückel). LEIPZIG, 2.0—Concert (contd. from 1.15). 2.30—An Odin Saga, from the Edda—Literary and Musical Sequence (Müller-Sobanski). MOSCOW (No. 1), 2.15—For Children. MUNICH, 2.0—See Frankfurt. PARIS (PTT), 2.0—Records. 2.20—Light Classical Records. 2.45—"L'île de Tulipatan"—One-Act Opéra-Bouffe (Offenbach), from Paris (Radio-Colonial). PARIS (Radio-Paris), 2.0—Operas (contd. from 1.30). STOCKHOLM, 2.0—For Children. STRASBOURG, 2.45—"L'île de Tulipatan"—One-Act Opéra (Offenbach), from Paris (Radio-Colonial). STUTTGART, 2.0—See Frankfurt. VIENNA, 2.0—News. 2.10—Talk: Christmas in Summer. 2.35—String Quartet in A (Franz Schmidt), by the Mairecker Quartet. WARSAW, 2.0—For Country Folk.

3 p.m.

BERLIN, 3.0—Station Orchestra. Conductor: Steiner. Charlotte Bartsch and Irmgard Mietusch (Pianoforte Duets). Festival Overture (Leutner). Dream Waltz (Millöcker). Salut d'amour (Elgar). Suite (Bece). Pianoforte Duet: Hungarian Dances (Brahms). A toi (Waldteufel) Serenade (Heykens). Nina-Nanna (de Micheli). Romance (Tchaikovsky). Dort unterm Baum (Kunkle). Samt und Seide (Ziehrer). Pianoforte Duets: Dances and Melodies (Brandts-Buys). Reigen, "Peterchens Mondfahrt" (Schmalstich). BEROMÜNSTER, 3.0—Light Music, Songs, Prose, and Verse. Station Orchestra. Conductor: Gilbert. Josef Cron (Tenor) and Cécile Faesy (Recitations). BRESLAU, 3.0—Orchestra. 3.50—For Young People. BUDAPEST, 3.0—Violin and Guitar (contd. from 2.30). 3.10—Reading. 3.35—Kurina Cigany Band. COLOGNE, 3.0—See Berlin. DEUTSCHLANDSENDER, 3.0—See Königsberg. FRANKFURT, 3.0—Orchestra, from Wiesbaden. Conductor: Schalek. Overture, "Figaro" (Mozart). Moment musical (Schubert). Second Suite, "L'Arlesienne" (Bizet). Waltz, Fesche Geister (Ed. Strauss). Overture, "Eine Nacht in Venedig" (Strauss). Song, "Boccaccio" (Suppé). Selection, "The Czarevitch" (Lehár). Chromatic Gallop (Liszt). HAMBURG, 3.0—Orchestra and Military Band (contd. from 2.0). 3.50—"Maria durch die Heidegung"—Nativity Play. HILVERSUM, 3.0—Socialist Party's Christmas Festival (contd. from 1.40). HUIZEN, 3.0—Christmas Oratorio (Bach) (contd. from 2.10). KALUNDBORG, 3.0—Orchestra (contd. from 2.30). KÖNIGSBERG, 3.0—Station Orchestra. Conductor: Wilcken. LEIPZIG, 3.0—Sequence (contd. from 2.30). 3.30—Discussion. MOSCOW (No. 1), 3.0—News. 3.30—Communist Party Programme. MUNICH, 3.0—See Frankfurt. OSLO, 3.30—Bergen Station Orchestra. Hulda, Frisk, Gran and Bunzl (Songs). Five Carols (Solheim). Andante cantabile (Tchaikoff).



3 p.m. (contd.)

sky). Movement from the String Quartet in D flat minor (Haydn). Litani (Schubert). Air, "Der Evangelimann" (Kienzi). Pietra Signor (Stradella). Adagio (Bizet). Du bist die Ruh (Schubert).  
**PARIS (PTT)**, 3.0—"L'île de Tulipatan"—Opéra-Bouffe (Offenbach) (contd. from 2.45). 3.30—"Around the Christmas Tree"—Musical Programme for Children (Schumann, Bizet, Mussorgsky, Debussy, Piémé, Ravel, etc.).  
**PARIS (Radio-Paris)**, 3.0—Operas (contd. from 1.30).  
**PRAGUE**, 3.0—Orchestra. 3.45—"Christmas Story."  
**ROME**, 3.30—Children's Radio Review. 3.50—News; Exchange.  
**SOTTENS**, 3.0—Radio - Lausanne Orchestra. Conductor: Desarzens. 3.45—Saxophone.  
**STOCKHOLM**, 3.0—Records: Christmas Greetings from Twelve Countries.  
**STRASBOURG**, 3.45—Talk: The French Colonies.  
**STUTTGART**, 3.0—See Frankfurt.  
**TURIN**, 3.35—News. 3.45—For Children.  
**VIENNA**, 3.0—Quartet (Schmidt) (contd. from 2.35). 3.15—Christmas Legends and Customs. 3.40—Dance Music.  
**WARSAW**, 3.0—Reading. 3.20—"Christmas." Mme. Robowska (Pianoforte). 3.45—"An Affair of Honour"—Humorous Programme.

4 p.m.

**BERLIN**, 4.0—Orchestra (contd. from 3.0). 4.45—For Young People.  
**BEROMÜNSTER**, 4.0—Catholic Address.  
**BRESLAU**, 4.0—Gielnick's Orchestra.  
**BRNO**, 4.30—Mendelssohn Pianoforte Music.  
**BUDAPEST**, 4.0—Cigány Band (contd. from 3.35). 4.40—Talk.  
**COLOGNE**, 4.0—See 3.0 Berlin. 4.45—For Young People.  
**DEUTSCHLANDSENDER**, 4.0—See 3.0 Königsberg. 4.45—For Young People.  
**FRANKFURT**, 4.0—See Stuttgart.  
**HAMBURG**, 4.0—Nativity Play (contd. from 3.50). 4.40—For Young People.  
**HILVERSUM**, 4.0—Socialist Party's Christmas Festival (contd. from 1.40). 4.40—For Children.  
**HUIZEN**, 4.0—Christmas Oratorio (Bach) (contd. from 2.10). 4.30—Records. 4.40—Records: Sacred Music.  
**KALUNDBORG**, 4.0—Orchestra (contd. from 2.30). 4.30—Reading.  
**KÖNIGSBERG**, 4.0—Request Concert (contd. from 3.0).  
**LEIPZIG**, 4.0—Station Choir and Orchestra. Conductor: Weber. Eva Anschütz (Soprano), Nagel (Bass), Sammler (Pianoforte). Extracts, "Hänsel and Gretel" (Humperdinck). Lieder for Soprano (Trunk): (a) Weihnachtsen, (b) Idyll. Extracts, Serenade in A minor for Strings (Trunk). Songs for Mixed Choir (arr. Möller): (a) Krippenlied, (b) Weihnachtslied. Shepherd's Song from Christus vincit (Liszt). Bass Solos (Trunk): (a) Christbaum, (b) Die Heiligen drei Könige. Christmas Festival Overture (Blon). Christmas Songs for Mixed Choir: (a) Der Morgenstern (arr. Thiel), (b) Die Hirten an der Krippe (arr. Fuchs), (c) Wiegenlied der Hirten (arr. Bruch). Overture, "Nussknacker und Mausekönig" (Schaub).  
**MOSCOW (No. 1)**, 4.0—Communist Party Programme. 4.30—Vaudeville Programme.  
**MÜNICH**, 4.0—See Stuttgart.  
**OSLO**, 4.0—Orchestra (contd. from 3.30). 4.30—Religious Address.  
**PARIS (PTT)**, 4.0—"Around the Christmas Tree"—Music for Children (contd. from 3.30).  
**PARIS (Radio-Paris)**, 4.0—Operas (contd. from 1.30).  
**PRAGUE**, 4.0—Carols. Konstantin (Baritone) and a Wnd Quintet. 4.30—Talk: Mount Everest. 4.45—Records. 4.55—German Transmission: "All the World's a Stage"—Play (Hugo von Hoffmannsthal)—after Calderon.  
**ROME**, 4.0—Recitations. 4.10—Light Music.  
**SOTTENS**, 4.0—Orchestra (contd. from 3.0). 4.50—Dance Music.  
**STRASBOURG**, 4.0—A Christmas Story in Alsatian Dialect.  
**STUTTGART**, 4.0—"Hänsel and Gretel"—Fairy Opera in Three Acts (Humperdinck). Station Orchestra and Choir. Conductor: Görlich.  
**TURIN**, 4.0—For Children. 4.10—Ferruzzi Orchestra. 4.55—Weather.  
**WARSAW**, 4.0—Stromberg Village Dance Band. Ladosz (Songs and Commentary). 4.50—Sketch.

5 p.m.

**BERLIN**, 5.0—See Deutschlandsender.  
**BEROMÜNSTER**, 5.0—Fanfares and Christmas Music. Station Orchestra. Conductor: Gilbert. 5.30—Talk by an Arab, Kamil Mussallam of Palestine: Bethlehem and the Church of the Nativity.  
**BRATISLAVA**, 5.0—Hungarian Transmission: Talk for Workers; Station Orchestra. Conductor: St. Németh. Marta Lányi (Songs). 5.45—Talk.  
**BRESLAU**, 5.0—See Deutschlandsender.  
**BRUSSELS (No. 1)**, 5.0—Orchestra. Variations and Fugue on a Theme of Handel (Delune). Romanian Poems (Enesco). 5.30—For Children.  
**BRUSSELS (No. 2)**, 5.0—A Message of Peace from a Flemish Girl to Children throughout the World. 5.5—Records. 5.20—"Hoc het kindeke hielp"—Christmas Play (Toon Rammelt). 5.45—For Children.  
**BUCHAREST**, 5.0—Vocal Tangos. 5.15—Dance Music.  
**BUDAPEST**, 5.0—Talk. 5.15—Dance Music.  
**COLOGNE**, 5.0—See Deutschlandsender.



The Church of the Nativity, Bethlehem

**DEUTSCHLANDSENDER**, 5.0—Transmission for all German Stations: German Stations' Christmas Inter-relay. East Prussian Christmas, Silesian Nativity Play; Swabian Christmas Songs; Christmas Customs in Berchtesgaden; Christelein in Frankfurt; Songs from Eisenach; Christmas on a Liner at the Mouth of the Elbe; Christmas Fair in Berlin; Fanfare from the Tower of Cologne Cathedral; Christmas in the Country.  
**FRANKFURT**, 5.0—See Deutschlandsender.  
**HAMBURG**, 5.0—See Deutschlandsender.  
**HILVERSUM**, 5.0—Christmas Programme for Children. Talk for Children (Wintershoven), with Pianoforte Accompaniment.  
**HUIZEN**, 5.0—Records: Sacred Music. 5.30—Service from Apeldoorn.  
**KALUNDBORG**, 5.0—Chimes. 5.2—Organ from Frederiksberg Castle Church. 5.30—Danish Christmas Carols and Folk Music. Radio Chamber Choir. Conductor: Mahler.  
**KÖNIGSBERG**, 5.0—See Deutschlandsender.  
**LEIPZIG**, 5.0—See Deutschlandsender.  
**MOSCOW (No. 1)**, 5.0—Vaudeville Programme. 5.30—Reading (Korolenko). 5.50—"The Russian Peasant in Music"—Domra Ensemble; Songs.  
**MÜNICH**, 5.0—See Deutschlandsender.  
**OSLO**, 5.0—Sacred Music for Choir, Orchestra and Organ. 5.50—Literary Talk.  
**PARIS (PTT)**, 5.45—Economics Talk.  
**PARIS (Radio-Paris)**, 5.0—"Christmas Tree."  
**PRAGUE**, 5.0—"All the World's a Stage" (Hugo von Hoffmannsthal)—after Calderon (contd. from 4.55). 5.55—News in German.  
**ROME**, 5.0—Corn Prices

**SOTTENS**, 5.0—Records: Christmas Music. In the Interval at 5.30: Reading of Poems.  
**STOCKHOLM**, 5.0—Evensong from Göteborg.  
**STRASBOURG**, 5.0—Orchestra.  
**STUTTGART**, 5.0—See Deutschlandsender.  
**VIENNA**, 5.0—Talk: Christmas Records at the Front Twenty Years Ago. 5.25—Orchestral Records.  
**WARSAW**, 5.0—Sketch (contd. from 4.50). 5.5—"The Prince must be amused"—Variety. 5.35—Czech Music on Records. 5.45—Dramatic Programme.

6 p.m.

**BEROMÜNSTER**, 6.0—Sports Notes. 6.10—Station Orchestra. Conductor: Neppach. 6.30—Extracts, "Hänsel and Gretel"—Fairy Opera (Humperdinck), on Records.  
**BRATISLAVA**, 6.10—Reading.  
**BRESLAU**, 6.0—See 5.0 Deutschlandsender.  
**BRUSSELS (No. 1)**, 6.5—Reading for Children. 6.15—Brandenburg Concerto No. 1 in A (Bach), by Cortot and a Chamber Orchestra (on Records). 6.30—Children's Suites by the Radio Orchestra. Conductor: Gason. Suite pour mes petits champs"—Musical Nativity Play (Vidal). 6.30—News.  
**PARIS (Radio-Paris)**, 6.0—France Nylord (Songs).  
**PRAGUE**, 6.0—News. 6.5—Record. 6.10—Reading. 6.25—National Guards' Band. March (Eckert). Overture, "Martha" (Flotow). Japanese Dance and Furiant (Prozavnik). Potpourri (Labsky). Hunting March (Rehor).  
**ROME**, 6.0—Announcements. 6.15—News in Foreign Languages.  
**SOTTENS**, 6.0—For Women. 6.20—Christmas Potpourri (on Records). 6.30—Song Recital from La Chaux-de-Fonds. Sophie Wyss; Emilie Perret-Wyss. Duet, Vo cercando (D'Astorga). Accourez riante jeunesse (Rameau). Rose chérie (Grétry). Two Duets (Purcell): (a) My dearest, my fairest, (b) Let us wander. Two Christmas Carols (Cras): (a) La mauvaise auberge, (b) L'Adoration. Duet: Ach, mein herzliches Jesulein (Schelle).  
**STOCKHOLM**, 6.0—Evensong (contd. from 5.0). 6.30—Reading.  
**STRASBOURG**, 6.0—Legal Talk in German. 6.15—Talk: Christmas throughout the World. 6.30—Light Music. Conductor: Roskam. Grégoire (Violin). Marionettenbrautzug (Rathke). Waltz, "Gipsy Love" (Lehár). Dance of the

**amis (Piémé). Dolly (Fauré). Jeux d'enfants (Bizet). Children's Corner (Debussy).**  
**BRUSSELS (No. 2)**, 6.0—For Children. 6.30—J.V.K.A. Programme.  
**BUCHAREST**, 6.0—Talk: Christmas. 6.20—Romanian Song Records. 6.45—Talk.  
**BUDAPEST**, 6.0—Sports Results. 6.15—Mixed Choir.  
**COLOGNE**, 6.0—See 5.0 Deutschlandsender.  
**DEUTSCHLANDSENDER**, 6.0—Transmission for all German Stations (contd. from 5.0).  
**FRANKFURT**, 6.0—See 5.0 Deutschlandsender.  
**HAMBURG**, 6.0—See 5.0 Deutschlandsender.  
**HILVERSUM**, 6.0—"The Christmas Tree"—Tale for Children (contd. from 5.40). 6.10—Talk. 6.40—Christmas Programme for Children.  
**HUIZEN**, 6.0—Service (contd. from 5.30).  
**KALUNDBORG**, 6.0—News. 6.16—Talk: The Thorvaldsen Museum. 6.30—Christmas Greetings from European Countries.  
**KÖNIGSBERG**, 6.0—See 5.0 Deutschlandsender. 6.15—Pianoforte. 6.40—Report.  
**LEIPZIG**, 6.0—Inter Relay Programme (contd. from 5.0).  
**LJUBLJANA**, 6.0—Instrumental Concert.  
**MOSCOW (No. —1)**, 6.0—"The Russian Peasant in Music" (contd. from 5.50).  
**MÜNICH**, 6.0—See 5.0 Deutschlandsender.  
**OSLO**, 6.0—Literary Talk (contd. from 5.50). 6.15—News. 6.31—Jonrsrud (Violin), Minnas (Pianoforte). Sonata (Johansen). Scherzo for Pianoforte (Grieg). Air (Minsas).  
**PARIS (Poste Parisien)**, 6.30—Protestant Address. 6.50—Film Review. 6.57—Talk: Hunting.  
**PARIS (PTT)**, 6.0—"Noël"—Sketch (Boucher); "Les bergers, aux

**Merry Mascots (Ketelbey). Violin Solo. Potpourri, Fox-Cocktails (Salabert). En sourdine (Tellam). Patrouille galante (Lachaume). Arlene (Pollack-Murky). Potpourri (Urbach). Sylvie danseuse de cordes (Razigade). Viva España (van Herck).**  
**STUTTGART**, 6.0—See 5.0 Deutschlandsender.  
**TOULOUSE (Radio-Toulouse)**, 6.0—News. 6.15—Light Music. 6.30—Songs. 6.45—Cigány Band.  
**TURIN**, 6.30—Announcements; Records.  
**VIENNA**, 6.0—Records: Orchestral Music. 6.5—News. 6.20—Lieder Recital Jaro Prohaska (Baritone). Geistlicher Gesang (Haydn). Four Lieder (Schubert): (a) Schnsucht, (b) Der Doppelgänger, (c) Auf der Donau, (d) Aufenthalt. Three Lieder (Wolf): (a) Der Jäger, (b) Schlafendes Jesukind, (c) Der Musikant. Four Lieder (Strauss): (a) Wie sollten wir geheim es halten, (b) Die Zeillose, (c) Nachtgesang, (d) Zueignung.  
**WARSAW**, 6.30—For Children. 6.45—Programme Announcements. 6.50—Reading.  
**ZAGREB**, 6.10—Talk: The Roman Catholic Christmas. 6.30—Talk on the following Transmission.

**Merry Mascots (Ketelbey). Violin Solo. Potpourri, Fox-Cocktails (Salabert). En sourdine (Tellam). Patrouille galante (Lachaume). Arlene (Pollack-Murky). Potpourri (Urbach). Sylvie danseuse de cordes (Razigade). Viva España (van Herck).**  
**STUTTGART**, 6.0—See 5.0 Deutschlandsender.  
**TOULOUSE (Radio-Toulouse)**, 6.0—News. 6.15—Light Music. 6.30—Songs. 6.45—Cigány Band.  
**TURIN**, 6.30—Announcements; Records.  
**VIENNA**, 6.0—Records: Orchestral Music. 6.5—News. 6.20—Lieder Recital Jaro Prohaska (Baritone). Geistlicher Gesang (Haydn). Four Lieder (Schubert): (a) Schnsucht, (b) Der Doppelgänger, (c) Auf der Donau, (d) Aufenthalt. Three Lieder (Wolf): (a) Der Jäger, (b) Schlafendes Jesukind, (c) Der Musikant. Four Lieder (Strauss): (a) Wie sollten wir geheim es halten, (b) Die Zeillose, (c) Nachtgesang, (d) Zueignung.  
**WARSAW**, 6.30—For Children. 6.45—Programme Announcements. 6.50—Reading.  
**ZAGREB**, 6.10—Talk: The Roman Catholic Christmas. 6.30—Talk on the following Transmission.

7 p.m.

**ATHLONE**, 7.30—Christmas Programme, by the Artane Band.  
**BARI**, 7.10-7.20—Programme for Greece. Greek National Anthem. News in Greek. Records of Greek Music. Marcia Reale. Giovinazza (Blanc).  
**BERLIN**, 7.0—"Steam and Love," or "The First Railway"—Sequence after the Book by Azel Delmar (arr. Seitz), to Music of Marschner, Kreuzer, Weber, Schubert, Strauss, Lanner, Simon and Gungl. Berlin Provincial Orchestra and Station Choir. Conductor: Knauer.

TUESDAY Dec. 25

**BEROMÜNSTER**, 7.0—"Die lieben Kleinen—die lieben Grossen"—Play (Hugin), Music by Heddenhausen.  
**BORDEAUX-LAFAYETTE**, 7.45—Records.  
**BRATISLAVA**, 7.5—"A Christmas Carol"—Play (Kares), after a Charles Dickens Story. 7.50—Record.  
**BRESLAU**, 7.0—Christmas Play in Silesian Dialect (Schenke), with Music by Szuka.  
**BRUSSELS (No. 1)**, 7.0—Children's Suites (contd. from 6.30). 7.15—Weekly Review. 7.30—Colonial Report; Sports Notes.  
**BRUSSELS (No. 2)**, 7.0—J.V.K.A. Programme. 7.15—Religious Talk. 7.30—Science Talk.  
**BUCHAREST**, 7.5—Christmas Carols. 7.45—Talk.  
**BUDAPEST**, 7.0—"The Cricket on the Hearth"—Play after Dickens (arr. Taylor).  
**COLOGNE**, 7.0—News. 7.15—"The Barber of Baghdad"—Comic Opera in Two Acts (Cornelius). Station Orchestra and Choir. Conductor: Buschkötter.  
**DEUTSCHLANDSENDER**, 7.0—The Bund Dance Band and Groh (Songs).  
**FRANKFURT**, 7.0—Station Orchestra. Conductor: Rosbaud. Hélène Cals (Soprano), John Gläser (Tenor) and Alfred Hoehn (Pianoforte). Part I: Mozart Music. Overture, "The Magic Flute." Two Soprano Arias, "The Magic Flute." German Dances. Two Arias: (a) Non più tutti ascolatai, (b) Ma che vi fece o Stelle. The Jupiter Symphony. Part II: Liszt and Strauss Music. Pianoforte and Orchestra: Hungarian Fantasy (Liszt). Three Songs (Strauss): (a) Wach auf, (b) Traum durch die Dämmerung, (c) Cäcilie. Pianoforte Solo: Polonaise in E (Liszt). Symphonic Poem, Les Préludes (Liszt).  
**HAMBURG**, 7.0—"Little Dorrit"—Operetta in Three Acts (Künneke).  
**HILVERSUM**, 7.0—For Children (contd. from 6.40). 7.40—News. 7.55—"The Birth of Christ"—Christmas Play (Houwink), with Music. The Amsterdam A-capella Choir and Boys' Choir, the A.V.R.O. String Orchestra. Conductor: Treep.  
**HUIZEN**, 7.0—Wijers (Organ). Fantasia (Lux). Improvisation on Christmas Carols. 7.25—Records. 7.40—News; Records. 7.55—K.R.O. Symphony Orchestra. Conductor: Henri Van Goudoever; Georg Walter (Tenor). Concerto grosso No. 8 (Corelli). Songs: (a) Meine Seele erhebt den Herrn (Schütz), (b) Ein kleines Kindelein (Funder). Brandenburg Concerto No. 3 in G (Bach). Songs: (a) Also hat Gott die Welt geliebt (Buxtehude), (b) Nimm mich Dir zu eigen hin (Bach). Records. Overture, "Cyrano de Bergerac" (Wagneaar). Selection, "Le bourgeois gentilhomme" (Strauss). The Blue Danube" (Strauss).  
**JUAN-LES-PINS (Radio Côte d'Azur)**, 7.30—Songs; Christmas Carols.  
**KALUNDBORG**, 7.0—Chimes. 7.2—Hartmann Music. Oehlenschläger Plays. Radio Orchestra. Conductor: Gröndahl. Prélude, "Yrsa". Extract, "Hakon Jarl" Overture, "Axel and Valborg." 7.30—"Axel and Valborg"—Tragedy in Five Acts (Oehlenschläger), Music by Hartmann.  
**KÖNIGSBERG**, 7.0—For Young People. 7.10—Variety. Börschel Dance Band and Soloists. Conductor: Reisner.  
**LAHTI**, 7.10—Helsinki Theatre Orchestra. 7.45—News.  
**LEIPZIG**, 7.0—Leipzig Symphony Orchestra. Conductor: Weisbach. Brandenburg Concerto No. 1 in F for Violin, Orchestra and Harpsichord (Bach). Symphony No. 68 in B flat (Haydn). Nutcracker Suite (Tchaikovsky).  
**LJUBLJANA**, 7.0—Talk (contd. from 6.40). 7.50—Announcements.  
**MÜNICH**, 7.0—See Frankfurt.  
**OSLO**, 7.0—"Le retour de l'enfant prodigue" (André Gide).  
**PARIS (Poste Parisien)**, 7.0 Talk (contd. from 6.57). 7.4—News. 7.14—Sports Notes. 7.25—Amusement Guide. 7.28—Variety.  
**PARIS (PTT)**, 7.45—Science Talk. 7.53—Photography.  
**PARIS (Radio-Paris)**, 7.0—Radio-Paris Circus. 7.30—Topical Talk.  
**PRAGUE**, 7.5—"The Bud"—One-Act Play (Svoboda). 7.50—Record. 7.55—Christmas Address.  
**RADIO - NORMANDIE**, 7.0—Variety.  
**ROME**, 7.0—News. 7.10—Records. 7.30—Request Records.

TUESDAY Dec. 25

7 p.m. (contd.)

SOTTENS, 7.0—Fribourg Children's Choir. 7.30—"Christmas"—Nativity Play (Boucher). Radio-Lausanne Choir. Conductor: Moser.
STOCKHOLM, 7.0—Programme for Swedish Nationals abroad. Station Orchestra. Talk. Movements from Symphony in F (Beckman). Reading. Song. Orchestral Suite (Peterson-Berger). Overture, "The Maid of Orleans" (Söderman).
STRASBOURG, 7.0—Light Music (contd. from 6.30). 7.30—News. 7.45—Records.
STUTTGART, 7.0—See Frankfurt.
TOULOUSE (Radio-Toulouse), 7.0—Cigany Band. 7.10—Sound Film Music. 7.15—Instrumental Ensemble. 7.30—News. 7.45—Military Music.
TURIN, 7.0—News; Records. 7.30—Request Records.
VIENNA, 7.0—"Eine Nacht in Venedig"—Operetta in Three Acts (Johann Strauss). Mixed Choir, the Vienna Symphony Orchestra and Soloists. Conductor: Holzner.
WARSAW, 7.0—"The Blue Danube"—Augmented Salon Orchestra and the Wesola Piątka Choir. Jasowski (Tenor). 7.45—Talk: The History of the Polish Christmas Carol.
ZAGREB, 7.0—"Tales of Hoffmann"—Opera in Three Acts (Offenbach), from the National Theatre. In the Interval: Announcements.

8 p.m.

ATHLONE, 8.30—"And the Light shineth in Darkness"—presented by Gabriel Fallon and Company. Music by Dr. Vincent O'Brien.
BARCELONA, 8.0—Dance Music.
BERLIN, 8.0—"Steam and Love"—Sequence with Music (contd. from 7.0).
BEROMÜNSTER, 8.0—News. 8.10—Records; Recitations.
BORDEAUX-LAFAYETTE, 8.15—News. 8.30—See Paris (PTT).
BRATISLAVA, 8.10—Christmas Programme.
BRESLAU, 8.0—See 7.0 Frankfurt.
BRNO, 8.10—Christmas Programme from Kosice.
BRUSSELS (No. 1), 8.0—Station Symphony Orchestra. Marguerite Thys (Songs) and Mireille Flour (Harp). Fantasia on a Walloon Carol (Ysaye). Song and Orchestra; Cantata No. 51, "Jauchzet Gott" (Bach). Song and Harp; Fantasia on Two Walloon Carols (Jongen). Old Carol for Voice and Harp. Breton Rhapsody (Saint-Saëns).
BRUSSELS (No. 2), 8.0—Christmas Service. Bible Reading: Sacred Songs; Christmas Cantata (Peeters). 8.30—Christmas Concerto (Corelli) on Records. 8.45—Religious Talk.
BUCHAREST, 8.0—Romanian Music—Luca Orchestra.
BUDAPEST, 8.0—"The Cricket on the Hearth" (after Dickens) (contd. from 7.0). 8.40—News.
COLOGNE, 8.0—"The Barber of Baghdad"—Comic Opera (Cornelius) (contd. from 7.15).
DEUTSCHLANDSENDER, 8.0—Bund Dance Band; Groh (Songs).
FRANKFURT, 8.0—Orchestra and Songs (contd. from 7.0).
HAMBURG, 8.0—"Little Dorrit"—Operetta (Künneke) (contd. from 7.0).
HILVERSUM, 8.0—"The Birth of Christ"—Christmas Play (contd. from 7.55). 8.50—Radio Puzzle.
HUIZEN, 8.0—K.R.O. Symphony Orchestra (contd. from 7.55).
JUAN-LES-PINS (Radio Côte d'Azur), 8.0—Songs; Christmas Carols.
KALUNDBORG, 8.0—"Axel and Valborg" (Oehlenschläger) (contd. from 7.30).
KÖNIGSBERG, 8.0—Variety (contd. from 7.10).

9 p.m.

LAHTI, 8.0—News in Swedish.
LEIPZIG, 8.0—To be announced.
MADRID (EAJ7), 8.0—Variety. 8.15—News. 8.30 (approx.)—Lloret (Baritone).
MORAVSKÁ-OSTRAVA, 8.10—Christmas Programme.
MOSCOW (No. 1), 8.0—For Children in German. 8.55—Chimes.
MUNICH, 8.0—See 7.0 Frankfurt.
OSLO, 8.0—Station Orchestra. Conductor: Kramm. Ingebjorn Grosvik (Piano) and Glaser (Violin). Pianoforte Concerto in D flat (Sinding). Overture, "Fidello" (Beethoven). Violin Concerto in G minor (Bruch). Extracts from the Christmas Oratorio (Bach). 8.45—Topical Talk.
PARIS (Poste Parisien), 8.15—Concert. 8.45—Sacha Guitry Programme.
PARIS (PTT), 8.0—Talk: The Last Days of Napoleon. 8.10—Records. 8.30—Gala Christmas Programme by Artists from the Odéon Theatre and a Vocal Quartet. Part I: Poems. Tsilla (Samain). Ballade du Jour de Noël (Marot). Progrès (Legendre). Le Part de Madeleine (France). Part II: Pastorales. L'Ange réveille les bergers. Les Bergers s'appellent. Le Départ. Part III: Poems. Noël septnaire (Lafargue). Le Huchier de Nazareth (Héridia). Le Cirque (Haraucourt). Part IV: Songs. Part V: "L'Heure des Crimes"—One-Act Comedy in Verse (Dumas). After the Programme: News.
PARIS (Radio-Paris), 8.0—Alsatian Stories (Schützenberger). 8.30—News. 8.45—Opera Music. Discepolo, Froumenty, Germaine Féraldy and Mme. Nespolous (Songs). Overture, "Iphigenia in Aulis" (Gluck). Aria, "Armide" (Gluck). March from "Alceste" (Gluck). Pamina's Aria, "The Magic Flute" (Mozart). Two Arias, "Figaro" (Mozart). Aria, "Gwendoline" (Chabrier). Duet and Wedding Procession, "Romeo and Juliet" (Gounod). Aria, "Hérodiade" (Massenet). Duet, "Marouf" (Rabaud). Overture, Hans Sachs' Monologue and Walter's Prize Song, "The Mastersingers" (Wagner).
PRAGUE, 8.0—Christmas Address. 8.10—Christmas Programme.
RADIO-NORMANDIE, 8.0—Wireless Notes. 8.15—Records. 8.30—Concert.
ROME, 8.0—Request Records (contd. from 7.30). 8.30 (approx.)—"Il faut qu'une porte soit ouverte ou fermée"—One-Act Play (Alfred de Musset).
SOTTENS, 8.0—"Christmas"—Nativity Play (contd. from 7.30). 8.30—News. 8.40—Folk Songs with Readings. Radio Lausanne Choir; Conductor: Hemmerling; Actors of the Municipal Theatre. Song of the Ticino. Le chasseur de hannetons. Old Alsatian Christmas Carol. Old Provençal Christmas Carol. Chant des femmes d'Ovine. Madelon. Marqoton. Derrière chez mon père.
STOCKHOLM, 8.0—Orchestra (contd. from 7.0). 8.45—News.
STRASBOURG, 8.0—News in German; Records. 8.30—See Paris (PTT).
STUTTGART, 8.0—See 7.0 Frankfurt.
TOULOUSE (Radio-Toulouse), 8.0—Military Music. 8.15—Duets. 8.30—Light Music.
TURIN, 8.0—Request Records (contd. from 7.30). 8.30—Variety.
VIENNA, 8.0—News. 8.15—"Eine Nacht in Venedig" (Strauss) (contd. from 7.0).
WARSAW, 8.0—"Peace on Earth and Goodwill to all Men"—European Christmas Carols on Records.
ZAGREB, 8.0—"Tales of Hoffmann"—Opera (Offenbach) (contd. from 7.0).

BARCELONA, 9.0—Chimes;

Announcements; For Seamen. 9.10—Opera from the Gran Teatro del Liceo.
BERLIN, 9.0—News. 9.20—For Young People. 9.30—Light Music by Ferdy Kauffman's Orchestra. Lotte Theile (Soprano). Humorous Overture (Kark). Waltz, Winterstürme (Füćik). Suite, Im Puppenhaus (Engelmann). Die Perle von Iberia (Helmberger). Ballet "The Sleeping Beauty" (Tchaikovsky). Soprano: (a) Guten Tag, Herr Gärtnermann (Schumann), (b) Allerschnöster Engel Du (Schumann), (c) Auf der Gartenbank (Arndt), (d) Kussekrout (Arndt), (e) Tanzlied (Arndt), (f) Aus der Schwalm (Hess). Serenade (Maus). Ballet, "Undine" (Lortzing). Soprano: (a) Eines Maienmorgens schön (Hildebrand), (b) Tanzlied (Hildebrand), (c) Three Songs (Wendland): Das verlorene Herz, Recht empfindsam, Zwischen Bergen. Fairy Overture, Fest der Infantin (Gebhardt). The Skaters' Waltz (Waldteufel). March (Helmberg-Holmes).
BEROMÜNSTER, 9.0-9.15—Records; Recitations.
BORDEAUX-LAFAYETTE, 9.0—See 8.30 Paris (PTT).
BRATISLAVA, 9.15—News in Hungarian.
BRESLAU, 9.0—See Frankfurt. 9.10—News. 9.30—See Hamburg.
BRUSSELS (No. 1), 9.0—Talk: Christmas. 9.15—Radio Orchestra. Conductor: Gason. Mireille Flour (Harp). Light Overture. Variations on an Old Carol for Harp and Orchestra (Rousseau). Ballet Fantasia (de Beriot). Melodious Memories (Finck). Fantastic Suite (Foulds).
BRUSSELS (No. 2), 9.0—Symphony Orchestra. Prelude, "Parsifal" (Wagner). Lyric Poem, Le pardon (Chauvet). Christmas Ballad (Mortelmans). Pastorale (Bach). Aux étoiles (Duparc). 9.55—Prayer.
BUCHAREST, 9.0—News. 9.25—Luca Orchestra.
BUDAPEST, 9.0—Unter dem Christbaum (Liszt) by Imre Stefanján (Pianoforte).
COLOGNE, 9.0—News. 9.20—For Young People. 9.30—See Hamburg.
DEUTSCHLANDSENDER, 9.0—News.
FRANKFURT, 9.0—For Young People. 9.10—News. 9.20—Folk Music. Mandoline Orchestra and Soloists.
HAMBURG, 9.0—News. 9.20—For Young People. 9.30—Dance Music.
HILVERSUM, 9.0—Radio Puzzle. 9.10—"The Comedy Harmonists"; 9.55—Violin Concerto (Beethoven) by Merkel and the A.V.R.O. Orchestra.
HUIZEN, 9.0—K.R.O. Symphony Orchestra (contd. from 7.55). 9.55—Records.
JUAN-LES-PINS (Radio Côte d'Azur), 9.0—News. 9.15—Musical and Literary Programme.
KALUNDBORG, 9.0—"Axel and Valborg" (Oehlenschläger) (contd. from 7.30). 9.30—Quintet in E flat for Wood Wind and Pianoforte (Mozart).
KÖNIGSBERG, 9.0—News. 9.20—For Young People. 9.30—Station Orchestra. Conductor: Wilcken. March (Dostal). Overture, "The Gipsy Baron" (Strauss). Brune ou blonde (Waldteufel). Extracts, Das süsse Mädel (Reinhardt). Ballet, "Frau Luna" (Lincke). Overture, "Der Opernball" (Heuberger). Dynamiden-Walzer (Strauss). Extracts, "Fatinitza" (Suppé). Potpourri (Dostal). Extracts, "Die Landstreicher" (Ziehrer).
LJUBLJANA, 9.0—See 8.0 Zagreb. 9.30—Variety.
LEIPZIG, 9.0—News. 9.20—Light Music. EmDe Orchestra. Potpourri of Christmas Songs (Mannfred). Hänsel und Gretels Heimkehr (Dicker). Königskinder (Lähr). Two Songs (Heumann): Lasst mir mein Lachen. Wie duften so süss die Linden. Suite (Meyer-Helmund). Schmeichelkätzchen (Eilenberg). Overture, "The Frog King" (Rust). Winterstürme (Füćik). Elfengeflüster (Rhode). Auf der Wacht (Dierig). Selection, "Die Puppenfee" (Bayer). Reigen, "Peterchens Mondfahrt" (Schmalstich). Fest

der Zwerge (Noack). Serenade (Bece). Suite, Die Minnesänger (Amadei). Leuchtende Sterne (Robrecht). Brise de mer (Leoncavallo). Overture, Berlin, wie es weint und lacht (Conradi). Wenn Englein tanzen (Krome). Gute Nacht, du mein herziges Kind (Abt).
LYONS (La Doua), 9.0—See 8.30 Paris (PTT).
MADRID (EAJ7), 9.0—History Talk: Sextet. Overture, "The Merry Wives of Windsor" (Nicolai). Rumeros de la Caleta (Albeniz). Potpourri (Mannfred).
MOSCOW (No. 1), 9.0—Chimes. 9.5—French Talk: Municipal Constitution in Soviet Russia.
MUNICH, 9.0—News. 9.20—See Frankfurt.
OSLO, 9.0—Station Orchestra (contd. from 8.0).
PARIS (Poste Parisien), 9.15—Station Orchestra. Conductor: Mathieu.
PARIS (PTT), 9.0—Gala Christmas Programme (contd. from 8.30).
PARIS (Radio-Paris), 9.0—Opera Music (contd. from 8.45). In the Interval at 9.15: News.
PRAGUE, 9.0—News. 9.15—Record. 9.20—News in German. 9.25—Record. 9.30—Light Music. March (Vackar). Overture, "Poet and Peasant" (Suppé). Waltz (Smetana Jr.). Suite, "Coppélia" (Delibes). Tango (Mares). Romance (Titl). Hofballtänze (Lanner). Polka (Vackar). Potpourri (Aust-Kovarik). March (Kmoeh).
RADIO-NORMANDIE, 9.0—"Mannon"—Opera in Five Acts (Messene).
ROME, 9.0—Variety.
SOTTENS, 9.0—Folk Songs and Readings (contd. from 8.40). 9.15—Records: Light Music.
STOCKHOLM, 9.0—Station Orchestra. Conductor: Grevillius. Charles Barkel (Violin). Prelude, Suite No. 2 (Jonsson). Partita for Violin and Orchestra (Rangström). Folk Tune (Lindberg). Andante espressivo for Harp and Strings (Wiklund). Rhapsody (Kallstenius).
STRASBOURG, 9.0—See 8.30 Paris (PTT).
STUTTGART, 9.0—See Frankfurt.
TOULOUSE (Radio-Toulouse), 9.0—Concert Version, "Le jongleur de Notre-Dame" (Massenet). 9.30—Viennese Orchestra.
TURIN, 9.0—Variety (contd. from 8.30).
VIENNA, 9.0—"Eine Nacht in Venedig" (Strauss) (contd. from 7.0). 9.15—News. 9.45—Wind Band.
WARSAW, 9.0—Records. 9.30—Dance Records: B.B.C. Dance Orchestra. Conductor: Henry Hall.
ZAGREB, 9.0—"Tales of Hoffmann"—Opera (Offenbach) (contd. from 7.0).

10 p.m.

ALGIERS, 10.0—Oriental Music.
ATHLONE, 10.0—Variety. 10.30—Traditional Irish Music.
BARCELONA, 10.0—Opera Relay (contd. from 9.10).
BERLIN, 10.0—Light Music (contd. from 9.30).
BORDEAUX-LAFAYETTE, 10.0—See 8.30 Paris (PTT).
BRESLAU, 10.0—For Young People. 10.10—See 10.0 Hamburg.
BRUSSELS (No. 1), 10.0—News. 10.10—Request Records. 10.55—Christus vincit (Liszt).
BRUSSELS (No. 2), 10.0—News. 10.10—Records.
BUDAPEST, 10.0—Concert.
COLOGNE, [10.0—See Hamburg.
DEUTSCHLANDSENDER, 10.0—For Young People. 10.10—Bund Dance Band and Groh (Songs).
FRANKFURT, 10.0—"Das Gotschdorfer Weib"—Christmas Play of the Great War (Stehr). 10.30—Folk Music (contd. from 9.20).
HAMBURG, 10.0—Dance Music.
HILVERSUM, 10.0—Violin Concerto (Beethoven) (contd. from 9.55). 10.40—News. 10.50—Light Music. Kovacs Lajos Orchestra.

HUIZEN, 10.0—Records. \* 10.10—News. 10.15—K.R.O. Orchestra. Conductor: Lustenhouwer. Overture, "Alessandro Stradella" (Flotow). Slav Dance (Dvořák). Chinese Nachtwacht (Siede). Selection, "Die geschiedene Frau" (Fall). Potpourri (Morena). Entrance Gavotte (Gilbert). March (Füćik). 10.55—Records.
KÖNIGSBERG, 10.0—Orchestra (contd. from 9.30).
LEIPZIG, 10.0—Light Music (contd. from 9.20).
LYONS (La Doua), 10.0—See 8.30 Paris (PTT). After the Programme, News.
MADRID (EAJ7), 10.0—News; Selection, "El principe bohemio" (Millán). 10.30—Relay from a Theatre.
MOSCOW (No. 1), 10.5—Dutch Talk: Religion in Soviet Russia.
MUNICH, 10.0—See Frankfurt.
PARIS (Poste Parisien), 10.0—Orchestra (contd. from 9.15). 10.30—Records.
PARIS (PTT), 10.0—Gala Christmas Programme (contd. from 8.30). 10.30—Dance Music.
PARIS (Radio-Paris), 10.0—Opera Music (contd. from 8.45). 10.30—Adison Dance Band.
PRAGUE, 10.0—Light Music (contd. from 9.30).
ROME, 10.0—News.
STRASBOURG, 10.0—See 8.30 Paris (PTT).
STUTTGART, 10.0—See Frankfurt.
TOULOUSE (Radio-Toulouse), 10.0—Christmas Music. 10.15—News. 10.30—"Intimité"—Fantasy.
TURIN, 10.0—News.
VIENNA, 10.0—Wind Band (contd. from 9.45).
WARSAW, 10.0—Dance Records (contd. from 9.30).

11 p.m.

ATHLONE, 11.0—Time: Weather.
BARCELONA, 11.0—Opera Relay (contd. from 9.10).
BRESLAU, 11.0—See Hamburg.
BRUSSELS (No. 1), 11.0—Records.
BRUSSELS (No. 2), 11.0—See Brussels (No. 1).
COLOGNE, 11.0—See 9.30 Hamburg.
DEUTSCHLANDSENDER, 11.0—Bund Dance Band; Groh (Songs).
FRANKFURT, 11.0—Dance Music.
HAMBURG, 11.0—Dance Music.
HILVERSUM, 11.0—Light Music (contd. from 10.50).
HUIZEN, 11.0-11.40—Records.
MADRID (EAJ7), 11.0—Relay from a Theatre (contd.). 11.45 (approx.)—News.
PARIS (Poste Parisien), 11.0—Records.
RADIO-NORMANDIE, 11.0—Christmas Concert. 11.30—Light Music.
STUTTGART, 11.0—See Frankfurt.
TOULOUSE (Radio-Toulouse), 11.0—"Intimité"—Fantasy (contd. from 10.30). 11.15—Orchestra. Extracts, "Madame Pompadour" (Fall), "The Land of Smiles" (Léhar), "The Dubarry" (Millöcker-Mackeben). Classic Souvenirs. 11.30—Chansonnettes. 11.50—Russian Orchestra.
VIENNA, 11.0—Song Records. 11.30—Records of the B.B.C. Dance Orchestra.

12 midnight

BARCELONA, 12.0—News.
DEUTSCHLANDSENDER, 12.0—Bund Dance Band: Groh (Songs). 12.30—Mass from the Lutheran Church, Baltimore, U.S.A. (on Records).
FRANKFURT, 12.0—Dance Music.
RADIO-NORMANDIE, 12.0—Light Music.
STUTTGART, 12.0—See Frankfurt.
TOULOUSE (Radio-Toulouse), 12.0—News. 12.5—"Au caveau de minuit"—Fantasy. 12.15—Orchestra. Overtures, "The Barber of Seville" (Rossini). "L'Arlésienne" (Bizet).

1 a.m. (Wednesday)

RADIO-NORMANDIE, 1.0—News. 1.10—Dance Music.

**NATIONAL**

For Time Signals, see Monday  
 10.15 a.m. (Droitwich)—Service.  
 30.30 (Droitwich)—Weather Forecast.  
 10.45—Cinema Organ. Children's Overture (Quilter). What Shall I do? (Nicholls). Dear Old Home Songs. Love in Bloom (Ranger). Medley. Take your partners.  
 11.15—Jack Wilson and his Versatile Five.  
 12 noon—Charles Manning and his Orchestra.  
 1.0 p.m.—Dance Records.  
 1.45—The Scottish Studio Orchestra. Matthew Nisbet (Baritone).  
 3.0—Jan Berenska and his Orchestra.  
 4.0—The Squire Celeste Octet.  
 4.45—Records: "They made these famous"—2.  
 5.15—The Victor Olof Sextet.  
 6.0—"The First News."  
 6.30—"Current Fiction." A. J. Cronin.  
 6.45—"For Farmers Only": John Morgan.  
 7.5—"From Plainsong to Purcell." The Foundations of English Music.  
 7.30—"Blue Beard." Dick Francis and Leonard Henry as Mr. and Mrs. Blue Beard. Founded upon Arthur Collins's Drury Lane Pantomime (1901-2), written by J. Hickory Wood. Adaptation and Production by Gordon McConnel.  
 8.45—Kate Winter (Soprano); Suggia (Violoncello).  
 9.30—"The Second News."  
 10.0—The Leslie Bridgewater Quintet. Leonard Gowings (Tenor). Quintet: Old Irish (arr. Bridgewater); Drink to me only, Three poor Mariners (Quilter). Leonard Gowings: The Songs that live forever (Longstaffe); Duna (McGill); Ninetta (Brewer). Quintet: Children's Pieces (Schumann); Court Dance (Strachey); Similitude (Sims). Leonard Gowings: Charming Chloe (Edward German); The Bitterness of Love (Dunn); An Evening Song (Blumenthal). Quintet: Rural England (Dunhill); Echo Song (Novello).  
 11.0—Speeches that never happened—4. "The Wife who said that her Husband was so sympathetic about her Troubles," by E. M. Delafield. Read by Jeanne de Casalis.  
 11.15-12.0 (Droitwich)—Dance Music. The Casani Club Orchestra.  
 11.15-11.45 (London)—Television.

**REGIONAL**

For Time Signals, see Monday  
 10.15-10.45 a.m. (except Midland)—Droitwich.  
 10.45—The Pavilion Theatre Orchestra, Liverpool.  
 11.45—Records.  
 12.15 p.m.—The Broadhurst Septet.  
 1.15—The Commodore Grand Orchestra. March, Here goes (Baynes). Savoy Community Medley (Somers). Waltz Medley, The Gay Nineties. To-day's Popular Hits. Songs of Gracie Fields. Songs that will never die. Harry Lauder's Songs. Famous Musical Comedy Melodies.  
 2.15—Records: Musical Comedies.  
 3.0—Louis Preil and his Broadcasting Dance Orchestra, relayed from Denmark.  
 4.0—Foden Motor Works Band. Olive Tomlinson (Pianoforte).  
 5.15—The Children's Hour.  
 6.0—"The First News."  
 6.30—The B.B.C. Dance Orchestra.  
 7.30 (except Scottish)—"Rolling Stones"—13. "With a Tin Lizzie to Niagara." C. Stanley Eke.  
 7.30 (Scottish)—"Annals of Aberdeen."  
 7.45 (London, Belfast)—B.B.C. Orchestra (Section D), conducted by Frank Bridge. Joseph Farrington (Bass).  
 7.45 (Midland)—Alex Cohen Quartet.  
 7.45 (North)—Merseyside Military Band.  
 7.45 (West)—Dorothy Stanton (Soprano). Arthur Cox (Tenor). Afan Glee Society.  
 8.15 (North)—Talk of Heroines. A discussion on Grace Darling.  
 8.15 (Scottish)—Maxwell Singers. Hugh Byers (Violin).  
 8.35 (North)—Band (contd.).  
 8.40 (Midland)—"Holiday Football in the Midlands."  
 8.45 (West)—Reading of Ballads from Crosbie Garstin.  
 8.50 (Scottish)—Two Excerpts from "Para Handy" (reading).  
 9.0—"The Kentucky Minstrels" hold a party.  
 10.0—News Summary.  
 10.10 (except West and Scottish)—Dance Records.  
 10.10 (Scottish)—Scottish Music.  
 10.15 (West)—The Carlyle Cousins.  
 10.30-12.0 (Midland till 11.15)—The Casani Club Orchestra.  
 11.15-11.45 (Midland)—Television.

**WEDNESDAY December 26**

**PRINCIPAL EVENTS**

**SERVICES AND SACRED MUSIC**

P.M.  
 6.0 Hamburg: From Magdeburg Cathedral.  
 6.30 Strasbourg: Sacred concert.  
 9.25 Huizen: Sacred concert.

**SYMPHONY CONCERTS**

A.M.  
 9.50 Vienna: "Winter and Christmas."  
 P.M.  
 5.0 Brussels No. 2: Mozart programme.  
 7.10 Warsaw: Boccherini, Atterberg, etc.  
 8.0 Stockholm: Scandinavian music.  
 8.25 Sottens: Joseph Lauber concert.  
 8.30 Brussels No. 2: Benoît, Lalo, etc., from Verviers Conservatoire.

**LIGHT CONCERTS**

A.M.  
 11.15 Warsaw: The Philharmonic.  
 P.M.  
 3.0 Stuttgart, Frankfurt: Light operatic.  
 4.0 Oslo: Station Orchestra.  
 6.0 Warsaw: Light orchestral.  
 8.0 Brussels No. 1: Radio orchestra.  
 8.10 Beromünster: Organ and orchestra.  
 8.30 Paris (PTT): Music-Hall programme.  
 9.10 Hilversum: Verdi concert.  
 9.30 Breslau: Light orchestral.  
 9.30 Königsberg: Opera orchestra.  
 9.30 Prague: Light and Dance music.  
 9.40 Budapest: Cigány band.

**OPERAS**

P.M.  
 6.15 Brussels No. 1: "The Barber of Seville" (Rossini), Act 2 (records).  
 6.30 Prague: "The Jacobin" (Dvořák).  
 8.0 Rome, Turin: "Orfeo" (Monteverde).

**OPERETTAS**

P.M.  
 4.55 Prague: "The Nürnberg Doll" (Adam) (in German).

6.0 Munich: "The Fiftieth Birthday" (Dinkelmeier).  
 6.30 Budapest: An operetta (Vincze).  
 7.0 Bucharest: From Strauss operettas.  
 7.0 Oslo: "Lilac Time" (Schubert).  
 7.15 Kalundborg: "Music in the Air" (Kern).

**CHAMBER MUSIC**

P.M.  
 5.35 Vienna: Septet (Beethoven).  
 6.40 Leipzig: Pfte. wind instruments.  
 8.0 Radio-Paris: Weber, Magnard, etc.

**RECITALS**

P.M.  
 3.10 Hilversum: Children's choir.  
 3.45 Beromünster: Zither duets.  
 5.20 Budapest: Violin (Handel, etc.).  
 6.0 Königsberg: Pianoforte (Weber).  
 6.0 Leipzig: Alpine Christmas music.  
 7.0 Sottens: Vocal quartet.  
 8.0 Warsaw: Chopin.

**PLAYS**

P.M.  
 5.50 Breslau: Christmas play with music.  
 6.30 Beromünster: Nativity play.  
 8.30 Brussels No. 1: "Le commissaire est bon enfant" (Courteline).

**TALKS**

P.M.  
 2.40 Hilversum: Christmas story.  
 6.30 Königsberg: A Tale of Christmas.

**DANCE MUSIC**

P.M.  
 3.0 Kalundborg, Regional, Königsberg, Berlin; 4.5, Warsaw; 5.0, Brussels No. 1; 9.0, Stockholm; 9.20, Leipzig, Sottens; 9.45, Kalundborg, Warsaw; 10.5, Oslo; 10.10, Brussels No. 1; 10.30, Radio-Paris; 10.45, Vienna; 10.50, Brussels No. 2; 12 midnight, Stuttgart, Frankfurt.

Hours of Transmission in Greenwich Mean Time

**6 a.m.**

BERLIN, 6.0—See Königsberg.  
 BRESLAU, 6.0—Orchestra.  
 COLOGNE, 6.0—See Breslau.  
 DEUTSCHLANDSENDER, 6.0 — Records.  
 FRANKFURT, 6.0—See Munich.  
 KÖNIGSBERG, 6.0—Military Band.  
 LEIPZIG, 6.0—See Königsberg.  
 MUNICH, 6.0—Wind Band.  
 PARIS (Radio-Paris), 6.45—Gym.  
 PRAGUE, 6.0—Music; News. 6.30—Karlsbad Municipal Orchestra from Karlsbad.  
 ROME, 6.45—Gym.  
 SOTTENS, 6.0-6.15—Gym.  
 STUTTGART, 6.0—See Munich.  
 TURIN, 6.45—Gym.

**7 a.m.**

BERLIN, 7.0-7.15—See Königsberg. 7.25-7.30—Hymn. 7.55—Chimes from the Garrison Church.  
 BRESLAU, 7.0—Orchestra.  
 DEUTSCHLANDSENDER, 7.55 — See Berlin.  
 COLOGNE, 7.0—News. 7.10—Reading (Kohlenberg). 7.30—Christmas Chorals (on Records).  
 FRANKFURT, 7.0—See Munich. 7.15—See Stuttgart. 7.45—Wind Band.  
 HAMBURG, 7.0—See Königsberg. 7.15—News. 7.30-7.45—Gym.  
 KALUNDBORG, 7.0—Gym.  
 KÖNIGSBERG, 7.0-7.15—Military Band.  
 LEIPZIG, 7.0—See Königsberg. 7.20—Service.  
 MOSCOW (No. 1), 7.15—For Children.  
 MUNICH, 7.0—Wind Band. 7.30—Songs and Organ.  
 OSLO, 7.40—Hymn.  
 PARIS (Poste Parisien), 7.10 — Fanfare; Records. In the Interval at 7.30. Press Review.  
 PARIS (Radio-Paris), 7.0—Records. 7.15—Press Review. 7.45—Gym.

PRAGUE, 7.0—Orchestra (contd. from 6.30). 7.15—Organ. 7.45—For Workers.  
 ROME, 7.0-7.15—News.  
 STUTTGART, 7.0—See Munich. 7.15—Classical Records.  
 TURIN, 7.0-7.15—Announcements.

**8 a.m.**

BERLIN, 8.0—Service; Chimes from the Cathedral.  
 BRESLAU, 8.5—High Mass from St. Dorotheas Church.  
 DEUTSCHLANDSENDER, 8.0—See Berlin.  
 COLOGNE, 8.30—Sacred Concert.  
 FRANKFURT, 8.0—Roman Catholic Service. 8.45—"German Piety"—Readings.  
 HAMBURG, 8.0—Light Classical Records.  
 HILVERSUM, 8.40—Jong (Organ). 8.55—Address.  
 HUIZEN, 8.10—K.R.O. Religious Programme.  
 KÖNIGSBERG, 8.0—Service from St. Mary's Church.  
 MUNICH, 8.0—Songs and Organ. 8.10—Choir. 8.30—Protestant Service. Address by Dr. Meiser, Bishop of Bavaria.  
 OSLO, 8.5—Phantasia in C—The Wanderer (Schubert). "Fischer (Pianoforte), on Records. 8.30—Talk. 8.50—Records.  
 PARIS (Poste Parisien), 8.5—Music. 8.30—Press Review.  
 PARIS (Radio-Paris), 8.0—Records.  
 PRAGUE, 8.5—Records. 8.15—Reading. 8.30—Sacred Music. Prague Sacred Music Society, Station Orchestra and Soloists. Conductor: Nemeš.  
 STUTTGART, 8.0—Roman Catholic Service. 8.45—See Frankfurt.  
 VIENNA, High Mass from St. Stephen's Cathedral.  
 WARSAW, 8.0—Christmas Carol; Records. 8.7—Gym. 8.22—Records. 8.45—For Housewives. 8.50—Programme Announcements.

**9 a.m.**

BEROMÜNSTER, 9.0—Station Orchestra, Zollikon Church Choir and Soloists. Conductor: Frey.

BRESLAU, 9.0—Dietrich Eckart Memorial Programme. 9.30—Silesian Christmas Music. Station Orchestra and Soloists.  
 BUDAPEST, 9.0—High Mass.  
 COLOGNE, 9.0—Report: War-Time Christmases in the East. 9.15—Chamber Music. Kreuter (Violin); Delselt (Pianoforte). In the Interval, Christmas Stories (Flaskamp).  
 DEUTSCHLANDSENDER, 9.5 — Weather.  
 FRANKFURT, 9.0—"German Piety"—Readings (contd. from 8.45). 9.30—See Stuttgart.  
 HILVERSUM, 9.0—Address. 9.10—Light Music. 9.25—Choir. 9.40—String Orchestra.  
 HUIZEN, 9.0—K.R.O. Religious Programme. 9.10—Houtman (Organ). Introduction and Choral. Pastoral. Christmas Carols. Variations on "Komt allen tesamen." Introduction. 9.30—Service from Schiedam.  
 KALUNDBORG, 9.0—Service from Copenhagen Cathedral.  
 KÖNIGSBERG, 9.50 — Announcements.

**10 a.m.**

LEIPZIG, 9.0—Talks: The German Reich.  
 MOSCOW (No. 1), 9.0—News.  
 MUNICH, 9.0—Protestant Service (contd. from 8.30). 9.10—Chimes. 9.15—Readings. 9.30—Bavarian and Tyrolean Carols.  
 OSLO, 9.0—Records. 9.20—Service.  
 PRAGUE, 9.0—Sacred Music (contd. from 8.30). 9.30—"Christmas in Literature"—Readings from Nejedly, Galsworthy, Mann, Dumas, and Others.  
 STOCKHOLM, 9.0—Records.  
 STUTTGART, 9.0—See 8.45 Frankfurt. 9.30—Military Band.  
 VIENNA, 9.0—High Mass (contd. from 8.0). 9.20—Reading. 9.50—"Winter and Christmas"—Vienna Symphony Orchestra. Conductor: Paumgartner.  
 WARSAW, 9.0—Service.

BEROMÜNSTER, 10.0—Orchestra, Choir and Soloists (contd. from 9.0).  
 BRESLAU, 10.0—Silesian Christmas Music (contd. from 9.30). 10.30—Reading (Jahr). 10.45—Reading (Hertwig).  
 BUDAPEST, 10.0—Mass (contd. from 9.0). 10.15—Service.  
 COLOGNE, 10.0—Chamber Music (contd. from 9.15). 10.10—Talk with Records: Heinrich Schlusnus.  
 DEUTSCHLANDSENDER, 10.0—Talk: Christmas in German Literature. 10.15—Weather. 10.30—"The Play Box"—Records.  
 FRANKFURT, 10.0—See 9.30 Stuttgart.  
 HAMBURG, 10.0—Christmas Concert. St. James' Church Choir. Wenk (Harpischord), Fritz Köhnsen and Hans Fasch (Violin). 10.25—"Old Hamburg"—Christmas Festival Programme.  
 HILVERSUM, 10.0—String Orchestra. 10.10—Service from Rotterdam.  
 HUIZEN, 10.0—Service (contd. from 9.30).  
 KALUNDBORG, 10.0—Service (contd. from 9.0). 10.30—News.  
 KÖNIGSBERG, 10.0—Christmas-Inter Relay Programme. 10.30—Literary Sequence for the Anniversary of Rainer Maria Rilke's Death.  
 LEIPZIG, 10.0—String Quartet in G minor for Violins, Viola and Cello (Haydn). 10.25—Swedish Folk Songs.  
 MUNICH, 10.0—"Heavenly and Earthly Love"—Sequence (Kühne-Hellmesen).  
 OSLO, 10.0—Service (contd. from 9.20). 10.15—Service. 10.50—Exchange.  
 PRAGUE, 10.0—Joseph Bohuslav Foerster Chamber Music for the Composer's 75th Birthday. Prague Wind Instrument Quintet and an Instrumental Trio.  
 STOCKHOLM, 10.0—Service from Göteborg Cathedral.  
 STUTTGART, 10.0—Military Band. 10.30—Hollywood Orchestra.  
 VIENNA, 10.0—"Winter and Christmas"—Symphony Orchestra (contd. from 9.50).

WARSAW, 10.0—Service (contd. from 9.0). After the Service, Records.

**11 a.m.**

BERLIN, 11.0—See Hamburg.  
 BEROMÜNSTER, 11.0—Station Orchestra. Conductor: Neppach. In the Interval at 11.30—News.  
 BRESLAU, 11.0—Station' Dance Band. Conductor: Ilgner.  
 BUDAPEST, 11.20—News. 11.30—Hungarian Songs by Imre László with the Arpad Toll Cigány Band.  
 COLOGNE, 11.0—Station Chamber Orchestra. Annemarie Richartz (Soprano); Schneider (Bass).  
 DEUTSCHLANDSENDER, 11.0—Greetings. 11.10—See 11.0 Cologne.  
 FRANKFURT, 11.0—Orchestra.  
 HAMBURG, 11.0—Flensburg Orchestra. Conductor: Röder. Krämer (Flute).  
 HILVERSUM, 11.0—Service (contd. from 10.10). 11.40—V.A.R.A. Orchestra. Conductor: de Groot. Perpetuum mobile (Blon). Overture, "Martha" (Flotow). European Ballet (Leuschner).  
 HUIZEN, 11.0—Service (contd. from 9.30); Sacred Music.  
 KALUNDBORG, 11.0—Chimes. 11.2—Accordion Duets. March (Oscheit). Piece (Gyldmark). Casino Trot (Hansen). Accordion Waltz (Hansen). Over the Waves (Rosas). Piece (Cornelius). Helmsman's Waltz (Jönsson). Italian Waltz. Regimental March (Latani). 11.30—Records.  
 KÖNIGSBERG, 11.0—Opera House Orchestra. Conductor: Brückner. Festival Overture (Raff). Festival Suite (Klass). Selection, "Tiefand" (d'Albert). Les sirènes (Waldteufel). Symphonic Poem, Stenka Razin (Glazunov). Norwegian Rhapsody (Svendens). Selection, "Der Tenor der Herzogin" (Künneke). March (Blankenburg).  
 LEIPZIG, 11.0—Concert.  
 MONTE CENERI, 11.0—Announcements. 11.5—Station Orchestra. 11.29—Weather. 11.55—News.  
 MUNICH, 11.0—Police Band.  
 OSLO, 11.45—News.  
 PRAGUE, 11.0—Chimes; News. 11.15—Variety.

WEDNESDAY Dec. 26

11 a.m. (contd.)

SOTTENS, 11.30—News. 11.40—Records. STOCKHOLM, 11.0—Service (contd. from 10.0). 11.45—Announcements. STRASBOURG, 11.0—Orchestra. STUTTGART, 11.0—See Frankfurt. TURIN, 11.0—Hollywood Orchestra. 11.30—Records. 11.45—News. VIENNA, 11.0—Winter and Christmas—Symphony Orchestra (contd. from 9.50). 11.30—Orchestra. WARSAW, 11.0—Fanfare; Weather. 11.5—Theatre Notes. 11.15—Concert from the Philharmonic.

12 noon

BERLIN, 12.5—See 11.0 Hamburg. BEROMÜNSTER, 12.0—Station Orchestra. 12.30—A Christmas Play (Paul Budry), with Orchestra. BRESLAU, 12.0—Station Dance Band (contd. from 11.0). BRUSSELS (No. 1), 12.0—Symphony Orchestra. Torch March (Meyerbeer). Divertissement on Russian Songs (Rabaud). Records: (a) Elsa's Dream, "Lohengrin" (Wagner), (b) Aria, "Louise" (Charpentier). Selection, "Manon" (Massenet). Serenade (Pierne). Cavatina (Raff). Records: Valse oubliée (Liszt). Selection, "The Sleeping Beauty" (Tchaikovsky). BRUSSELS (No. 2), 12.0—"Christmas in the European Countries"—Records. BUDAPEST, 12.0—Hungarian Songs (contd. from 11.30). COLOGNE, 12.0—Weather; Greetings. 12.10—Orchestra (contd. from 11.0). DEUTSCHLANDSENDER, 12.10—See Cologne. FRANKFURT, 12.0—See Stuttgart. HAMBURG, 12.0—The Flensburg Orchestra (contd. from 11.0). HILVERSUM, 12.0—Orchestra (contd. from 11.40). 12.10—Women's Choir. Conductor: Uytendogaard. Mme. Hekkert van Eysden (Soprano). 12.30—V.A.R.A. Orchestra. Selection, "The Student passes by" (Ibáñez). Russian Fantasia (Lange). Selection, "The Cat and the Fiddle" (Kern). Spanish—Gipsy Dance (Marquina). 12.50—Choir (contd.). HUIZEN, 12.10—Van der Horst Ensemble. Christmas Carols. Ardicante religioso (Dreyschoek). Paraphrase, Stille Nacht (Schreiner). Angelus (Massenet). Petite Suite (Debussy). Records. Soljanka (Wilke). Serenade (Rachmaninov). Suite, "The Bartered Bride" (Smetana). Overture, "Der Freischütz" (Weber). KALUNDBORG, 12.0—For Children Reading; Tuba Recital. 12.30—Madsen (Violin), Lützhöft (Cello), and Jansen (Viola). Divertimento in A (Haydn). Trio in C minor (Beethoven). KÖNIGSBERG, 12.0—Orchestra (contd. from 11.0). LEIPZIG, 12.0—Dresden Philharmonic Orchestra. Conductor: Schestak. MONTE CENERI, 12.5-12.30—Records. MUNICH, 12.0—Station Orchestra. Conductor: Kloss. Overture, "The Queen's Kerchief" (Strauss). Mazurka and Minuet (Rust). Heilige Nacht (Orlando). Fantasia, Pierrot's Christmas (Monti). Die Kosenden (Lanner). Ballet, "Coppélia" (Delibes). Serenade (de Micheli). OSLO, 12.15—For Children. PARIS (Poste Parisien), 12.0—Exchange. 12.5—Records. 12.25—News. 12.35—Records. 12.45—Dance Music. Station Dance Band, and a Vocal Trio. Carol King (Songs). PARIS (PTT), 12.0—Tourist Report. 12.15—Orchestra. Conductor: Guillou. Georgette Diehl (Songs). Overture, "La caravane" (Grétry). Waltzes (Brahms). Selection, "Tasso" (Godard). Songs, "Jocelyn" (Godard). Infidélité (Paray). Serment (Paray). Sérénade (Fauré). Bachelin (Schubert). Suite brève (Aubert). La chaise à porteurs (Chaminade). The Old Musical Box (de Séverac). Selection, "Sigurd" (Reyer). "Cello and Orchestra: Impression d'automne (Mathé). Aux îles Samoa (Geehl). March, "Sigurd Jorsalfar" (Grieg). PARIS (Radio-Paris), 12.0—Educa-

tional Talk. 12.15—Goldy Dance Band. PRAGUE, 12.0—Variety. 12.30—For Farmers. RADIO-NORMANDIE, 12.0—Records. 12.30—Press Review. 12.45—Request Programme. ROME, 12.0—Announcements. 12.5—Light Music. Foxtrot (Rixner). Waltz, España (Waldteufel). Potpourri (Padilla). Selection, "The Thieving Magpie" (Rossini). Memories (Petralia). Tesoro mio (Ferrari). Tango (Stransky). Notte stellata (Cortopassi). Foxtrot, Miss America (Maraziti). In the Interval at 12.35: News; Exchange. SOTTENS, 12.0—Records. STRASBOURG, 12.0—Light Orchestral Music. 12.30—News. 12.35—Records. STUTTGART, 12.0—Talk, with Records: Musical Presents. TURIN, 12.0—Announcements. 12.5—Fashion Hints. 12.10—Light Orchestral Music. In the Interval at 12.35: Records. VIENNA, 12.0—Orchestra. WARSAW, 12.0—Talk. 12.15—Concert (contd. from 11.15).

1 p.m.

BERLIN, 1.0—Sports Notes. 1.15-1.30—Eugen Moris (Violin). Minuet (Handel). Waltz (Hummel). Romance and Minuet (Reger). Andantino (Martini). Canzonetta (d'Ambrosio). BEROMÜNSTER, 1.0-1.30—A Christmas Play (contd. from 12.30). BRESLAU, 1.0—Announcements. 1.14—Hugo Wolf Lieder by Friedrich Schwochau (Baritone). Der Freund. Der Musikant. Der Jäger. Liebesglück. Fussreise. Der Gärtner. Selbstbekenntnis. Der Tambour. Weylas Gesang. Heimweh. 1.45—Records. BRUSSELS (No. 1), 1.0—News. 1.10—Records. BRUSSELS (No. 2), 1.0—News. 1.10—Symphony Orchestra. Overture, "Semiramis" (Rossini). Selection, "Cavalleria rusticana" (Mascagni). Records: Jewish Music. Ballet, "Carmen" (Bizet). Réverie (Vieuxtemps). Flemish Dances (Blockx). BUDAPEST, 1.0—Hungarian Songs (contd. from 11.30). COLOGNE, 1.0—"The Shepherd Girl's Christmas"—Play (Heinen). 1.10—For Children. 1.40—For Housewives. DEUTSCHLANDSENDER, 1.0—Records. 1.40—Reading (Ernst). 1.45—"The Urchin's Christmas"—Fairy Play (Bourfeind) with Music by Hess (on Records). FRANKFURT, 1.0—"Die Teufelehen auf der Himmelwiese"—Fairy Opera for Children (Reinecke). HAMBURG, 1.0—Christmas Play for Children (Harten). HILVERSUM, 1.0—Choir (contd. from 12.10). 1.10—V.A.R.A. Orchestra. Festival Overture (Leutner). Southern Slants. Ballet égyptien. 1.40—Records. HUIZEN, 1.0—Ensemble (contd. from 12.10). 1.40—Records. KALUNDBORG, 1.0—"An Old-time Afternoon"—Programme from the Lorry. 1.20—Swedish Waltz Records. 1.30—Preil's Dance Band. KÖNIGSBERG, 1.0—Reading (Krislietel). 1.30—Classical Records. LEIPZIG, 1.0—Orchestra (contd. from 12.0). 1.30—Christmas Chamber Music. Claire Spengler (Soprano). Annemarie Claus-Schöbel (Mezzo-soprano). Burgert (Pianoforte). MUNICH, 1.0—Announcements. 1.10—Records. Stories in the Intervals. OSLO, 1.0—Choral Concert. Sacred Music. PARIS (Poste Parisien), 1.0—Dance Music (contd. from 12.45). In the Interval at 1.15: Exchange. PARIS (PTT), 1.0—News. 1.15—Orchestra (contd. from 12.15). PARIS (Radio-Paris), 1.0—Goldy Dance Band. In the Interval at 1.20: Exchange. PRAGUE, 1.0-1.15—For Farmers. ROME, 1.0-1.15—Light Music (contd. from 12.5). STRASBOURG, 1.0—Records. STUTTGART, 1.0—See Frankfurt. TURIN, 1.0-1.15—Light Orchestral Music. WARSAW, 1.0—Records.

2 p.m.

BERLIN, 2.0—"Nussknacker und Knusperkönig"—Sequence. (Fraenger). 2.25—Christmas Carols (Cornelius, Humperdinck and Richard Strauss). Herbert Keck (Tenor) and Els Wichmann (Soprano). BRESLAU, 2.0—Records. 2.40—"The Dance of the Toys" (Colberg), with Music by Sczuka. COLOGNE, 2.0—Records: "Hansel and Gretel"—Opera (Humperdinck). 2.40—Talk: Christmas and the New Year. DEUTSCHLANDSENDER, 2.0—"The Urchin's Christmas"—Fairy Play (contd. from 1.45). FRANKFURT, 2.0—See Stuttgart. HAMBURG, 2.0—Mandoline and Guitar Orchestra. 2.30—Emil Sandt Birthday Programme. Introductory Talk; Reading by the Author from "Vagabunden"; Sandt Lieder to the Lute. HILVERSUM, 2.0—Records. 2.40—A Christmas Story (Kleijn). HUIZEN, 2.0—Records. 2.10—Christmas Oratorio (Bach). Residentie Orchestra; Haarlem Mixed Choir and Soloists. Conductor: Booda. KALUNDBORG, 2.0—Preil's Dance Band. 2.30—Talk: Christmas and Peace among Nations. KÖNIGSBERG, 2.0—Classical Records. 2.10—Else Sparwasser reads from her Novel, "Das Ferberblut". 2.35—For Children. LEIPZIG, 2.0—Christmas Festivities in the North—Sequence (Reichardt). MOSCOW (No. 1), 2.15—For Children. MUNICH, 2.0—Records and Stories (contd. from 1.10). 2.50—The Christmas Grand Prix—Report from the Trotting Races at Dagfling. PARIS (Poste Parisien), 2.0—Exchange. PARIS (PTT), 2.0—"Birds"—Records. 2.30—Variety Programme for the Blind. STOCKHOLM, 2.0—Elite Orchestra. STUTTGART, 2.0—Variety. In the Interval: Dialect Sketch. VIENNA, 2.0—News. 2.35—Talk by Dr. Bernhard Paumgartner: Three Spanish Towns. 2.35—Talk: The Titmouse. WARSAW, 2.0—For Farmers. 2.15—Records. 2.45—For Farmers.

3 p.m.

BARI, 3.30—For Children. BERLIN, 3.0—See Königsberg. In the interval, Report of the Football Match—Silesia v. Brandenburg. BEROMÜNSTER, 3.0—Alpina Choral Society. 3.45—Christmas Music by Emil and Elsa Holz (Zithers). BRESLAU, 3.0—Dance Music. BUDAPEST, 3.10—Talk with Records: The Philippine Islands. COLOGNE, 3.0—Military Band. Conductor: Köppikus. DEUTSCHLANDSENDER, 3.0—Station Orchestra. Conductor: Vack. Märchenouvertüre (Gebhardt). Deutsches Waldidyll (Niemann). Märchensuite (Dressel). Hungarian March (Schubert-Liszt). Saltarello (Hellmesberger). Waltz (Mackeben). Overture, "Pique Dame" (Suppé). Selection, "The Czarevitch" (Lehár). Skaters' Waltz (Waldteufel). FRANKFURT, 3.0—See Stuttgart. HAMBURG, 3.0—See Deutschlandsender. HILVERSUM, 3.0—Story (contd. from 2.40). 3.10—Hamel's Children's Choir relayed from the Concertgebouw, Amsterdam. 3.40—For Children. HUIZEN, 3.0—Christmas Oratio (Bach) (contd. from 2.10). In the interval, Records. KALUNDBORG, 3.0—Preil's Dance Band. Helge Rungwald (Songs). KÖNIGSBERG, 3.0—Börschel's Dance Band. LEIPZIG, 3.0—EmDe Orchestra. MONTE CENERI, 3.0—See Beromünster. MOSCOW (No. 1), 3.0—News. 3.30—Communist Party Programme. MUNICH, 3.0—See Stuttgart. PARIS (Poste Parisien), 3.15—Exchange. 3.45—Exchange. PRAGUE, 3.0—For Young People: Recitations and Christmas Carol Records. 3.45—Orchestra. ROME, 3.30—For Children. 3.55—News.

4 p.m.

BARI, 4.10—Quintet. BERLIN, 4.0—See 3.0 Königsberg. 4.40—Records of Wilhelm Backhaus (Pianoforte). Waltz (Brahms). Liebesträume (Liszt). Hungarian Rhapsody (Liszt). BEROMÜNSTER, 4.0—Christmas Zither Music (contd. from 3.45). 4.15—Records. 4.30—Talk: The Poet Carl Spitteler. BRESLAU, 4.0—Dance Music. BRNO, 4.55—German Transmission: Bohemian, Moravian and Silesian Christmas Carols; Reading. BRUSSELS (No. 1), 4.55—Announcements. BRUSSELS (No. 2), 4.55—Announcements. BUDAPEST, 4.5—"Die Puppenfee"—Ballet (Bayer), from the Royal Opera House. 4.50—Talk. COLOGNE, 4.0—Military Band (contd. from 3.0). DEUTSCHLANDSENDER, 4.0—Orchestra (contd. from 3.0). 4.30—"Jan is King"—Christmas Play (Hinrichs), with Incidental Music by Steinkopf. FRANKFURT, 4.0—See 3.0 Stuttgart. 4.30—See Deutschlandsender. HAMBURG, 4.0—See 3.0 Deutschlandsender. HILVERSUM, 4.0—For Children. HUIZEN, 4.0—Christmas Oratorio (Bach) (contd. from 2.10). 4.40—Records. 4.55—A Christmas Story. KALUNDBORG, 4.0—Service from Christiansborg Castle Church. KÖNIGSBERG, 4.0—Börschel's Dance Band. 4.30—See Deutschlandsender. LEIPZIG, 4.0—Orchestra (contd. from 3.0). 4.30—Childhood's Days—Sequence (Langewiesch). MONTE CENERI, 4.0—See Beromünster. MOSCOW (No. 1), 4.30—Red Army Programme. MUNICH, 4.0—See 3.0 Stuttgart. 4.30—Talk: Christmas and the Epiphany. 4.50—"Lausbuben-Weihnachte"—Fairy Play (Benrfeind), with Music (Hess). OSLO, 4.0—Station Orchestra. Conductor: Kramm. Overture, "Poet and Peasant" (Suppé). Christmas Carol Fantasia (Rhode). Præcludium (Järnefelt). Elegie (Hansen). Polichinelle (Rachmaninov). Abend im Hohegebirge (Grieg). Hungarian Rhapsody (Liszt). PARIS (Poste Parisien), 4.50—Exchange. PARIS (Radio-Paris), 4.0—Exchange. PRAGUE, 4.0—Orchestra. 4.40—To be announced. 4.55—German Transmission: "The Nürnberg Doll"—One-Act Comic Opera (Adam). RADIO-NORMANDIE, 4.0—Dance Music. 4.30—For Children. 4.45—Dance Music. ROME, 4.0—Exchange. 4.10—See Turin. SOTTENS, 4.0—See Beromünster. STOCKHOLM, 4.5—Talk: Danish Land-Reclaiming. 4.30—Records. STRASBOURG, 4.0—Orchestra. Conductor: Roskam. Wien bleibt Wien (Schrammel). Waltz Potpourri (Robrecht). Salut d'amour (Elgar). Humoresque (Dvořák). Potpourri

(Dostal). Overture, "Paragraph III" (Suppé). Slow Waltz (Erwin). Selection, "La Mascotte" (Audran). March (Heymann). STUTTGART, 4.0—Orchestra (contd. from 3.0). 4.30—See Deutschlandsender. TURIN, 4.0—For Children. 4.10—Concert. 4.55—Weather. VIENNA, 4.0—Military Band. 4.45—Talk: Christmas in Siberia. WARSAW, 4.0—For Children. 4.5—Polish Dance Music by the Dzierzowski Orchestra, with Introductory Talk. 4.50—Talk: Books and Science.

5 p.m.

BERLIN, 5.0—"In the Toy Shop"—Play (Schmack and Bachmann). 5.40—Chamber Orchestra. Conductor: von Benda. Suite for Strings (Pergolesi). Serenade (Mozart). Pieces (Fuchs): (a) Romance, (b) Minuet, (c) Alla Zingarese, (d) Waltz (Volkmann). Ballad (Juon). Rakastava—"The Lover" (Sibelius). Entrée, Sarabande, Minuet and Pavane (Niemann). BEROMÜNSTER, 5.0—Christmas Carols to the Lute. 5.30—"Our Christmas Tree"—Reminiscences by Wilhelm Schäfer. 5.50—A Story for Children. BRATISLAVA, 5.0—Hungarian Transmission: "Liszt at Bratislava in 1874"—Play (Reisenberger). The Cathedral Choir. Conductor: Albrecht. 5.45—Talk for Workers. BRESLAU, 5.0—Report: Silesian Christmas Rounds. 5.10—Sports Notes. 5.40—Talk: Do you know? . . . 5.50—Christmas Play (Schenke) with Incidental Music by Sczuka. The Station Choir, Orchestra and Soloists. Conductor: Rischka. BRNO, 5.0—"German Transmission" (contd. from 4.55). BRUSSELS ((No. 1), 5.0—Dance Music. BRUSSELS (No. 2), 5.0—Mozart Concert. Symphony Orchestra. Symphony in G. Eine kleine Nachtmusik. Selection, "Les petits riens." L'escarpolette. BUCHAREST, 5.0—Time; News. 5.15—Marco Orchestra. BUDAPEST, 5.0—Talk. 5.20—Alice Takács-Felvinczi (Violin). Sonata in E (Handel). Lullaby (Melartin). Aria (Goldmark). Selection, "Mose" (Paganini). COLOGNE, 5.0—Military Band (contd. from 3.0). 5.30—Christmas Relays from Other Countries. DEUTSCHLANDSENDER, 5.0—Symphonic Suite, Scheherazade (Rimsky-Korsakov) (on Records.) 5.40—Sports Notes. FRANKFURT, 5.0—To be announced. HAMBURG, 5.0—See Deutschlandsender. HILVERSUM, 5.0—For Children. HUIZEN, 5.0—A Christmas Story (contd. from 4.55). 5.25—Records. 5.40—N.C.R.V. Orchestra. Conductor: Hurk. Christmas Concerto (Manfredini). Christmas Pastoral (Valentini). Sinfonia pastorale (Tartini). Nativity Concerto (Torelli). Extracts, Concerto grosso in F minor (Scarlatti). Records. Christmas Carol Potpourri (Mannfred). Flutes: Christmas Carols. Paraphrase on Christmas Carols (Derksen). Fantasia, Weihnachten (Rhode). KALUNDBORG, 5.0—Service (contd. from 4.0). 5.20—Talk. 5.50—Weather. KÖNIGSBERG, 5.0—See 4.45—Deutschlandsender. LEIPZIG, 5.0—Sequence (contd. from 4.30). 5.30—Brahms Recital. Ruth Meister (Violin). Blumer (Pianoforte). Pianoforte and Violin Sonata in D minor. Intermezzo in E flat for Pianoforte. LYONS (La Doua), 5.0—Concert. MOSCOW (No. 1), 5.0—Red Army Programme. 5.30—Poetry Reading. MUNICH, 5.0—Fairy Play (contd. from 4.50). OSLO, 5.0—For Children. 5.45—Talk. PARIS (PTT), 5.5—Science Talk. PRAGUE, 5.0—"The Nürnberg Doll"—Opera (Adam) (contd. from 4.55). 5.45—News. RADIO-NORMANDIE, 5.0—Dance Music. 5.15—Variety. 5.45—Military Music. ROME, 5.0-5.10—Corn Prices.

5 p.m. (contd.)

SOTTENS, 5.0—For Children. 5.30—Esperanto Class. 5.40—Song Records. STOCKHOLM, 5.0—Records. 5.30—The History of the Christmas Play. 5.45 (approx.)—A Christmas Play. STRASBOURG, 5.0—Orchestra. STUTTGART, 5.0—See Deutschlandsender. TURIN, 5.0-5.10—Corn Prices. 5.50—Announcements. VIENNA, 5.0—Talk (contd. from 4.45) 5.10—Recitations. 5.35—Septet in E flat for Violin, Viola, Clarinet, Horn, Bassoon, 'Cello and Double-bass (Beethoven). WARSAW, 5.0—Play (Wiechecki-Wiech). 5.45—Talk.

6 p.m.

ATHLONE, 6.0—Records. 6.45—News. BARCELONA, 6.0—Opera from the Gran Teatro del Liceo. In the Interval: Exchange. BARI, 6.30—Weather; News in Foreign Languages; Records. BERLIN, 6.0—Chamber Orchestra (contd. from 5.40). 6.40—Sports Notes. BEROMÜNSTER, 6.0—Weather; Sports Results. 6.10—Christmas Music on Records. 6.30—A Nativity Play. BRATISLAVA, 6.5—Record. 6.10—6.25—Reading. BRESLAU, 6.0—Christmas Play with Music (contd. from 5.30). 6.40—Review of Christmas Week. BRNO, 6.5—Record. 6.10—Reading. BRUSSELS (No. 1), 6.0—For Children. 6.15—Act II, "The Barber of Seville"—Opera (Rossini) on Records. BRUSSELS (No. 2), 6.0—Brandenburg Concerto (Bach) on Records. 6.15—Talk. 6.30—Records: Nocturnes (Debussy): (a) Nuages, (b) Fêtes, (c) Sirenes. Dance. "The Three-Cornered Hat" (Falla). BUCHAREST, 6.0—Talk. 6.20—Revue Music. 6.45—Talk. BUDAPEST, 6.0—Humorous Talk. 6.30—Operetta in Three Acts (Vincze). COLOGNE, 6.0—Christmas Relays from other Countries (contd. from 5.30). 6.30—Talk: Iceland. 6.45—Sports Report. DEUTSCHLANDSENDER, 6.0—See Stuttgart. 6.45—Schubert Records. FRANKFURT, 6.0—See Stuttgart. 6.45—Sports Report. HAMBURG, 6.0—Madgeburg Cathedral Choirs. A-capella Choir: (a) Hodie Christus natus est (Gabrieli), (b) Goia (Gabrieli), (c) Maria wollt' zum Heiligum (Eccard). Pastoral (Corelli). Choirs and Instruments: (a) Male Voice Choir: Es ist ein Ros' entsprungen, (b) Children's Choir: Ich steh' an deiner Krippe hier, (c) Du lieber, heil'ger frommer Christ, (d) Zu Bethlehem geboren, (e) Kommet ihr Hirten, (f) O freudenreicher Tag, (g) Nun singet und seid froh. 6.40—Sports Report. HILVERSUM, 6.0—For Children. 6.25—Rural Programme: Talks; Recitations; Records. HUIZEN, 6.0—Orchestra (contd. from 5.40). KALUNDBORG, 6.0—News. 6.30—Talk with Records: Bird Songs. KÖNIGSBERG, 6.0—Weber Recital by Mara Kremer (Pianoforte). Sonata in D minor. Rondo brillant. 6.30—A Tale of Christmas (Schäfer). LEIPZIG, 6.0—Christmas in the Alps—Austrian Carols. Station Orchestra and Soloists (on Records). 6.40—French Horn Music. Scheffel (Flute), Richter (Pianoforte), Robin Adair. Serenade for Horn, Flute and Pianoforte (Till). Ständchen (Marschner). Lützows wilde Jägd (Weber). Variations on a Tyrolean Song for Flute and Pianoforte (Böhm). Schäfers Sonntaglied (Kreutzer). MONTE CENERI, 6.15—Astronomy Talk. 6.30—Records: Cinema Organ. 6.45—News. MUNICH, 6.0—"Der fünfzigste Geburtstag zur Biedermeierzeit"—Singspiel (Bauer-Dinkelmeyer). Conductor: Böhm. OSLO, 6.0—Talk (contd. from 5.45). 6.20—Talk. 6.31—Theatre Notes. 6.50—Talk on the 7.0 Transmission. PARIS (Poste Parisien), 6.25—Exchange. 6.30—Jewish Programme. 6.50—Topical Talk. 6.57—Science Talk.

PARIS (PTT), 6.0—For Young People: News; A Christmas Sketch (d'Estrac). 6.30—News. PARIS (Radio-Paris), 6.10—Weather; For Farmers; Racing Results. 6.25—Book Review. 6.40—Medical Talk. 6.55—Talk: Laziness. PRAGUE, 6.0—News. 6.5—Record. 6.10—Reading. 6.25—Introductory Talk to the following Relay. 6.30—"The Jacobin"—Opera in Three Acts (Dvořák), from the State Opera House. RADIO-NORMANDIE, 6.0—For Children. 6.30—Medical Talk. 6.50—News. ROME, 6.0—Announcements. 6.15—News in Foreign Languages. SOTTENS, 6.0—Chess. 6.10—Science Talk: Psychotechnics. 6.40—Wireless Notes. STOCKHOLM, 6.0—Play (contd. from 5.45). 6.15—News. 6.30—"The Värmländers"—Play (Dahlgren). Music arranged by Randel. STRASBOURG, 6.0—Legal Talk. 6.15—Talk: Handwork. 6.30—Sacred Music from the Roman Catholic Church, Phalsbourg. Mixed Choir and Organ: Potpourri of Carols (Guilmant). Collite portas (Goller). Mixed Choir: Es ist ein Ros' entsprungen. Mixed Choir and Organ: Gloria, Sanctus and Benedictus from the Mass, "Stella

BEROMÜNSTER, 7.0—Nativity Play (contd. from 6.30). BRESLAU, 7.0—See Stuttgart. BRUSSELS (No. 1), 7.0—Talk: The French Language. 7.15—Records. 7.30—Medical Talk; Report for Ex-Servicemen. BRUSSELS (No. 2), 7.0—Literary Talk. 7.15—Records. Symphonic Variations. Istar (d'Indy). Joyeuse marche (Chabrier). 7.30—Gardening. BUCHAREST, 7.0—Strauss Music. Station Orchestra. Mme. Aca de Barbu, Emilie Gutzianno and Michel Nasta. Selection. "Die Fledermaus." Waltz. Wienerblut. Selection. "Eine Nacht in Venedig." Kaiserwalzer. Songs and Duets. "The Gipsy Baron." Tales from the Vienna Woods. Polka, Tritsch-Tratsch. The Blue Danube. March "Indigo." BUDAPEST, 7.0—Singspiel (Vincze) (contd. from 6.30). COLOGNE, 7.0—See Stuttgart. DEUTSCHLANDSENDER, 7.0—See Stuttgart. FRANKFURT, 7.0—See Stuttgart. HAMBURG, 7.0—See Stuttgart. HILVERSUM, 7.0—Rural Programme (contd. from 6.25). 7.25—Wallis Orchestra. Hymn to Saint Cecilia (Gounod). Fantasia (Grit). 7.40—Announcements: Recitation.

ROME, 7.0—News. 7.10—Records. 7.30—Announcements; Government Report. 7.45—"Orfeo"—Opera (Monteverde), from the Royal Opera. SOTTENS, 7.0—Löff Quartet. Hymn, Gott sei Dank durch alle Welt (Löff). Oboe, 'Cello and Pianoforte: Pastorale (Vivaldi). Two Songs A-capella Quartet: (Prätorius). Choir and Instruments: Vom Himmel hoch, ihr Englein kommt. 'Cello and Pianoforte: Christmas Carol, Drei Könige wandern (Cornelius). Music for Oboe, 'Cello and Lute (Löffler). STOCKHOLM, 7.0—"The Värmländers"—Play (contd. from 6.30). STRASBOURG, 7.0—Sacred Music (contd. from 6.30). 7.30—News in French and German. 7.45—For Children. STUTTGART, 7.0—Station Orchestra and Choir. Conductor: Drost. Else Schulz (Soprano). TOULOUSE (Radio-Toulouse), 7.0—Accordion. 7.10—Operetta Songs. 7.30—News. 7.45—Hunting Horn. 7.50—Talk. TURIN, 7.0—News; Weather; Records. 7.30—Announcements; Government Notes. 7.45—"Orfeo"—Opera (Monteverde), from the Royal Opera, Rome.

WEDNESDAY Dec. 26

cords. 8.30—Concert, from the Conservatoire, Verviers. Conductor: Dupuis. Merckel (Violin). Overture, "Charlotte Corday" (Benoit). Symphonie espagnole, for Violin and Orchestra (Lalo). Prelude, "Hänsel und Gretel" (Humperdinck). Violin: Spanish Songs (Nin). Lucas et Lucette (Dupuis). BUCHAREST, 8.0—Talk. 8.15—Strauss Music (contd. from 7.0). BUDAPEST, 8.0—Singspiel (Vincze) (contd. from 6.30). 8.40—News. COLOGNE, 8.0—See Frankfurt. DEUTSCHLANDSENDER, 8.0—See 7.0 Frankfurt. FRANKFURT, 8.0—"Christmas on the Frontier." HAMBURG, 8.0—See Frankfurt. HILVERSUM, 8.0—Recitation. 8.10—Handel Recital. Wiggelaar (Violin), Blez (Oboe) and Jong (Organ). Movements, Sonata No. 4. Extracts, the Oboe Concerto in G minor. 8.25—A Christmas Play (Pleyzier). HUIZEN, 8.0—Choir (contd. from 7.45). 8.40—Records. KALUNDBORG, 8.0—"Music in the Air"—Musical Comedy (contd. from 7.15). KÖNIGSBERG, 8.0—See 7.0 Frankfurt. LEIPZIG, 8.0—See Frankfurt. LYONS (La Doua), 8.0—Educational Programme. 8.20—Talk. 8.30—Concert Version, "Die geschledene Frau" (Fall). Conductor: Billet. MADRID (EA.17), 8.15—News. 8.30 (approx.)—Chamber Music. Alice Ochsner (Songs). Iniesta (Violin), Ruiz Casau (Cello), Ember (Pianoforte), Fernández (Violin), Meroño (Viola). Sonata for Violin and Pianoforte (Fauré). Sento nel core (Scarlatti). Aria, "Figaro" (Mozart). Frühlingstraum (Schubert). Trio Sonata (Bacarissee). Die Forelle (Schubert). Two Songs (Schumann): Waldgespräch, Frühlingnacht. Quintet in E flat (Schumann). MONTE CENERI, 8.0—Orchestra (contd. from 7.5). 8.15—Talk: A Visit to the Office of an Illustrated Paper: 8.30—Old Music, "Romantico" Trio. Gavotte, I montoni (Martini). Minuet, "Le Bourgeois Gentilhomme" (Lully). Plaisir d'amour (Martini). Tre giorni son che Nina (Pergolesi). Elegy (Caldara). Sarabande, Violin Sonata in E minor (Corelli). MOSCOW (No. 1), 8.0—Czech Programme: (a) Talk: The Czech Club in Moscow; (b) Letter-Box. 8.55—Chimes. MUNICH, 8.0—See Frankfurt. OSLO, 8.0—"Lilac Time" (Schubert-Berté) (contd. from 7.0). PARIS (Poste Parisien), 8.10—Exchange. 8.15—Concert. 8.45—Talk. 8.55—Exchange. PARIS (PTD), 8.0—Talk: Mussolini's War Diaries. 8.10—Old-Time Dance Records. 8.30—Music Hall Programme. PARIS (Radio-Paris), 8.0—Concert. Sonata for Clarinet and Pianoforte (Weber). Songs (a) Since from my dear (Puccini), (b) What if I speed (Jones), (c) Aria "Castor et Pollux" (Rameau); "Monsieur Malezieux"—Comedy (Picard); Songs: (a) Rossignol mon mignon (Roussel), (b) Ciel, air et vous (Roussel), (c) Le son du cor s'afflige (Debussy), (d) Mandoline (Debussy), Quintet, for Flute, Oboe, Clarinet, Bassoon and Pianoforte (Magnard). In the Interval at 8.30: Press Review; Weather. PRAGUE, 8.0—"The Jacobin"—Opera (Dvořák) (contd. from 6.30). RADIO-NORMANDIE, 8.0—Songs. 8.30—Concert. ROME, 8.0—"Orfeo"—Opera (Monteverde) (contd. from 7.45). In the Interval, Talk: Great Franciscan Poets, Writers and Explorers. SOTTENS, 8.0—Talk: Actresses of the 18th Century. 8.15—News. 8.25—Joseph Lauber Birthday Concert. Radio-Suisse Romande Orchestra. Conductor: The Composer. Sinfonietta. Four Humoresques. STOCKHOLM, 8.0—Station Orchestra. Conductor: Grevillius. Värmland Rhapsody (Atterberg). Variations and Finale on a Theme of Lomjansguten (Haakanson). Värmland Suite (Sylvain). 8.45—News. STRASBOURG, 8.0—For Children.



A scene from "Lilac Time" to be broadcast from Oslo at 7.0 p.m.

Maris" (Griesbacher). Organ: Prière à Notre-Dame (Boëllmann). Soprano, Contralto and Organ: Ave Maria (Rheinberger). Psalm No. 150 (Frank). Two Old Carols. Mixed Choir: O du fröhliche. Organ: March (Ringelstein). STUTTGART, 6.0—"A German Christmas Abroad"—Three Radio Pictures (Stockinger). 6.45—Sports Report. TOULOUSE (Radio-Toulouse), 6.0—News. 6.15—Orchestra. 6.30—Chansonnettes. 6.45—Accordion. TURIN, 6.5—News in Foreign Languages. VIENNA, 6.0—Septet (Beethoven) (contd. from 5.35). 6.25—Announcements. 6.35—"Der ewige Jüngling"—Comedy (Engel). After the Comedy, Competition Results. WARSAW, 6.0—Station Orchestra. Conductor: Nawrot. Zywolewski (Guitar). Extracts, "The Christmas Tree" (Rebikov). Guitar: (a) Berceuse (Jännefelt), (b) Mattinata (Leoncavallo), (c) Chanson triste (Kallinikov). Piece (Komzak). Three Guitar Solos. Shepherd's Dance (Humperdinck). 6.45—Programme Announcements. 6.50—Topical Talk.

7 p.m.

ATHLONE, 7.0—Talk. 7.15—Pantomime—presented by Dorothy Day and Company with the Station Orchestra. BARCELONA, 7.0—Opera (contd. from 6.0). BARI, 7.45—Programme for Greece. Greek National Anthem. 7.50—See 7.45 Rome. In the Intervals: News in Greek. BERLIN, 7.0—See Stuttgart.

HUIZEN, 7.0—Orchestra (contd. from 5.40). 7.40—News. 7.45—Choir, Conductor: Cuypers. Address by Dr. Harrenstein. Alleluia (Handel). Aria, "St. Paul" (Mendelssohn). Three Arias, "The Messiah" (Handel). Serafinsche Tonge. Aria, "St. Paul" (Mendelssohn). Address. KALUNDBORG, 7.1—Talk on the following Relay. 7.15—"Music in the Air"—Musical Comedy (Hammerstein-Kern), from the Nörrebro Theatre. KÖNIGSBERG, 7.0—See Stuttgart. LAHTI, 7.0—Station Orchestra. 7.45—News. LEIPZIG, 7.0—See Stuttgart. MONTE CENERI, 7.0—Markets. 7.15—Station Orchestra. MOSCOW (No. 1), 7.0—Symphony Concert. MUNICH, 7.0—See Stuttgart. OSLO, 7.0—"Lilac Time"—Operetta in Two Acts (Schubert-Berté), from the National Theatre. Orchestra. Conductor: Grüner-Hegge. In the Intervals: News. PARIS (Poste Parisien), 7.0—Talk (contd. from 6.57). 7.4—Record. 7.7—Sports Notes. 7.10—News. 7.25—Amusement Guide. 7.28—Records: Sound Film Music. 7.43—Aviation Notes. 7.50—Song Records. PARIS (PTT), 7.45—Tourist Report. PARIS (Radio-Paris), 7.5—Economic Talk. 7.20—Press Review. 7.30—Topical Talk. PRAGUE, 7.0—"The Jacobin"—Opera (Dvořák) (contd. from 6.30). RADIO-NORMANDIE, 7.0—Request Programme.

VIENNA, 7.0—"Der ewige Jüngling"—Comedy (contd. from 6.35). WARSAW, 7.0—Humorous Recitation. 7.10—Station Symphony Orchestra. Conductor: Oziminski. Zarzycka (Violin). Violin Concerto in D (Boccherini). Pastoral Suite (Atterberg). Mazurka in C (Chopin-Rybicki). 7.45—News. 7.55—Talk: Work in Poland.

8 p.m.

ALGIERS, 8.0—Records. 8.25—News. 8.30—Station Orchestra. Concerto for Four Violins and Strings (Vivaldi). Poème élégiaque, for 'Cello and Orchestra (Baton). Selection, "Lohengrin" (Wagner). Two Minuets (Beethoven). Valse romantique (Chabrier). La Farandole (Dubois). ATHLONE, 8.0—Pantomime (contd. from 7.15). 8.15—Mr. and Mrs. P. J. Duffy (Songs). 8.45—Station Orchestra. BARCELONA, 8.0—Opera (contd. from 6.0). 8.30—Press Review; Records. BERLIN, 8.0—See Frankfurt. BEROMÜNSTER, 8.0—News. 8.10—Station Orchestra. Conductor: Hofmann. Mac Bösch (Organ). BRESLAU, 8.0—See Frankfurt. BRUSSELS (No. 1), 8.0—Radio Orchestra. Conductor: Gason. Roma Suite (Bizet). Ballet de cour (Pierné). A mules (Charpentier). 8.30—"Le commissaire est bon enfant"—One-act Play (Georges Courteline). BRUSSELS (No. 2), 8.0—Act I, "Othello"—Opera (Verdi) on Re-

WEDNESDAY Dec. 26

8 p.m. (contd.)

8.15—Announcements in German. 8.35—Alsation Evening.  
**STUTTGART**, 8.0—See Frankfurt.  
**TOULOUSE (Radio-Toulouse)**, 8.0—Talk. 8.15—Humorous Scenes. 8.30—Sound-Film Music.  
**TURIN**, 8.0—"Orfeo"—Opera (Monteverde) (contd. from 7.45).  
**VIENNA**, 8.0—"Der ewige Jüngling"—Comedy (contd. from 6.35). 8.35—News. 8.45—Popular Concert. Vienna Symphony Orchestra. Conductor: Holzer. Records in the intervals.  
**WARSAW**, 8.0—Chopin Pianoforte Recital by Smidowicz. Polonaise in E flat minor. Waltz in A. Waltz in F minor. Scherzo in E. 8.30—Talk. 8.40—Dan Choir.

9 p.m.

**ALGIERS**, 9.0—Orchestra (contd. from 8.30). In the Interval: News. 9.55—News.  
**ATHLONE**, 9.0—Mme. Ritter (Soprano). 9.15—Fagan (Soprano). 9.30—Godfrey (Bass-Baritone). 9.45—Traditional Irish Music.  
**BARCELONA**, 9.0—Chimes; Exchange. 9.10—Station Orchestra. 9.30—Talk. 9.35—Francisco Beret (Baritone). Arias, "A Masked Ball" (Verdi), "Rigoletto" (Verdi), "La Favorita" (Donizetti), "The Barber of Seville" (Rossini).  
**BERLIN**, 9.0—News. 9.20—Commentary on the International Ice Hockey Match, Berlin Sports Club v. Winnipeg Monarchs. 9.30—See Breslau.  
**BEROMÜNSTER**, 9.0—Orchestra (contd. from 8.10). 9.15—Sports Results.  
**BRATISLAVA** 9.15—News in Hungarian.  
**BRESLAU**, 9.0—News. 9.30—Light Orchestral Music.  
**BRUSSELS (No. 1)**, 9.0—Radio Orchestra. Conductor: Gason. Béthune (Violin). Rhapsody on Folk Melodies (Gaubert). Sylvan Scenes (Fletcher). Dance from "Henry VIII" (Saint-Saëns). Zambra Granadina (Albeniz). Suite, L'enfant prodige (Wormser). Violin Solo: A la Zingara (Wieniawski). Selection, "Le chemineau" (Leroux). Kamarinskaya (Glinka).  
**BRUSSELS (No. 2)**, 9.0—Concert (contd. from 8.30). In the Interval at 9.30 Recitations.  
**BUCHAREST**, 9.0—News. 9.25—Light Music.  
**BUDAPEST**, 9.0—Records. 9.40—Kiss Cigany Band.  
**COLOGNE**, 9.0—News. 9.30—Variety. Station Orchestra and Soloists. Conductor: Eysoldt.  
**DEUTSCHLANDSENDER**, 9.0—News. 9.30—Commentary on the International Ice Hockey Match, Berlin v. Winnipeg Monarchs, from the Sportpalast. 9.45—Weather.  
**FRANKFURT**, 9.0—News. 9.30—See Cologne.  
**HAMBURG**, 9.0—News. 9.30—See Deutschlandsender.  
**HILVERSUM**, 9.0—Play (Pleyzier) (contd. from 8.25). 9.10—Verdi Concert. New Amsterdam Orchestra and Soloists. Conductor: Linden. Overture, "The Force of Destiny." Baritone and Orchestra: Arias, (a) "Rigoletto" (b) "A Masked Ball." Tenor and Orchestra: Arias, (a) "Il Trovatore," (b) "Aida." Extracts, "Il Trovatore."  
**HUIZEN**, 9.20—News. 9.25—Georg Walter (Tenor) and Engels (Organ), from St. Jacob's Church, The Hague.  
**JUAN-LES-PINS (Radio Côte d'Azur)**, 9.0—News. 9.10—Orchestra.  
**KALUNDBORG**, 9.0—"Music in the Air"—Musical Comedy (contd. from 7.15). 9.45—Juhl-Thomsen Dance Band, from the National Scala.  
**KÖNIGSBERG**, 9.0—News. 9.30—Opera House Orchestra. Conductor: Wöllner. March, Weihnachtsfestklänge (Weninger). Overture, "The Princess in the Golden Slippers" (Rust). Ballet Suite (Popy). Intermezzo, "Der Opernball" (Heuberger). Gallop (Lincke). Kokukama-Estapo (Lincke). March Refrain, Heil Deutschland (Thiele). Marschlied der Kameraden (Buder). Der grüne Jägermann (Ailbott).  
**LYONS (La Doua)**, 9.0—Concert Version, "Die geschiedene Frau" (Fall) (contd. from 8.30). After the Programme: News.  
**LEIPZIG**, 9.0—News. 9.20—Dance Music.  
**MADRID (EAJ7)**, 9.0—Chamber Music (contd. from 8.30).

**MOSCOW (No. 1)**, 9.0—Chimes. 9.5—English Talks: (a) The Russian Revolutionary Movement, (b) Winter Sports in Soviet Russia.  
**MUNICH**, 9.0—News. 9.20—To be announced.  
**OSLO**, 9.0—"Lilac Time" (Schubert-Bertré) (contd. from 7.0).  
**PARIS (Poste Parisien)**, 9.0—Talk: Juvenile Crime. 9.35—News. 9.50—Interlude, by Ferraro and his Ensemble.  
**PARIS (PTT)**, 9.0—Music Hall Programme (contd. from 8.30).  
**PARIS (Radio-Paris)**, 9.0—Concert (contd. from 8.0). In the Interval at 9.15 (approx.): News; Talk.  
**PRAGUE**, 9.0—News. 9.15—Record. 9.20—News and Sports Notes in German. 9.25—Sports Notes in German. 9.30—Dance Music and Light Music. Conductor: Zid.  
**RADIO-NORMANDIE**, 9.0—Orchestra.  
**ROME**, 9.0—"Orfeo"—Opera (Monteverde) (contd. from 7.45).  
**SOITENS**, 9.5—Request Programme. 9.20—Dance Records.  
**STOCKHOLM**, 9.0—Ender Dance Band.  
**STRASBOURG**, 9.0—Alsation Evening (contd. from 8.35).  
**STUTTGART**, 9.0—News. 9.30—See Cologne.  
**TOULOUSE (Radio-Toulouse)**, 9.0—"Le Réve"—Fantasy. 9.30—Orchestra.  
**TURIN**, 9.0—"Orfeo"—Opera (Monteverde) (contd. from 7.45).  
**VIENNA**, 9.0—Popular Concert (contd. from 8.45). 9.45—News.  
**WARSAW**, 9.0—Letter-Box. 9.15—Light Music; Announcements. 9.30—Sports. 9.45—Dance Records.  
**10 p.m.**  
**ATHLONE**, 10.0—Variety. 10.30—Time; News. 10.40—Traditional Irish Music.  
**BARCELONA**, 10.0—News. 10.5—Toldra Sextet.  
**BERLIN**, 10.0—See Breslau.  
**BORDEAUX-LAFAYETTE**, 10.0—See 8.30 Paris (PTT).  
**BRESLAU**, 10.0—Light Orchestral Music.  
**BRUSSELS (No. 1)**, 10.0—News. 10.10—Dance Music.  
**BRUSSELS (No. 2)**, 10.0—Concert (contd. from 8.30). 10.40—News. 10.50—Dance Music.  
**BUDAPEST**, 10.0—Kiss Cigany

Band. 10.20—The Buday Orchestra.  
**COLOGNE**, 10.0—Variety (contd. from 9.30).  
**DEUTSCHLANDSENDER**, 10.0—Dance Music, The Golden Seven, Erika Helmke and the Fröhlich Band.  
**FRANKFURT**, 10.0—See 9.30 Cologne.  
**HAMBURG**, 10.0—See Deutschlandsender.  
**HILVERSUM**, 10.0—Verdi Concert (contd. from 9.10). 10.10—Announcements. 10.20—Records.  
**HUIZEN**, 10.0—Tenor and Organ (contd. from 9.25). 10.25—Records.  
**KÖNIGSBERG**, 10.0—Orchestra (contd. from 9.30). 10.30—See Breslau.  
**LEIPZIG**, 10.0—Dance Music.  
**MADRID (EAJ7)**, 10.0—Chimes. 10.5 News. 10.20 (approx.)—Maria Antonia Sánchez Vazquez (Songs). Se tú m'ami (Pergolesi). Serenade (Schubert). Largo (Handel). Widmung (Schumann). Two Songs (Bemberg): Il cejce, Aime-moi. Song (Cognard). 10.45—Sextet. Selection, "Pan y Toros" (Barbieri). Rumanian Song and Dance (Volpatti). Spanish Dance (Moskowski). Dance Music.  
**MOSCOW (No. 1)**, 10.5—German Talks: (a) Soviet Elections, (b) Soviet Congress of the Volga German Colony.  
**MUNICH**, 10.0—See Deutschlandsender.  
**OSLO**, 10.5—Dance Records.  
**PARIS (Poste Parisien)**, 10.5—Records.  
**PARIS (PTT)**, 10.0—Music Hall Programme (contd. from 8.30).  
**PARIS (Radio-Paris)**, 10.0—Concert (contd. from 8.0). 10.30—Dervaux Dance Band.  
**PRAGUE**, 10.0-10.30—Dance Music and Light Music.  
**RADIO-NORMANDIE**, 10.0—Orchestra.  
**REYKJAVIK**, 10.0—Christmas Carols. Station Orchestra; Song; Dance Music.  
**ROME**, 10.0—News.  
**STRASBOURG**, 10.0—Alsation Evening (contd. from 8.35). 10.30—News.  
**STUTTGART**, 10.0—See 9.30 Cologne.  
**TOULOUSE (Radio-Toulouse)**, 10.0—"Au caveau de dix heures"—Fantasy. 10.10—Extract, "Phi-

Phi"—Operetta (Christiné). 10.30—Concert Version, "Figaro" (Mozart).  
**TURIN**, 10.0 (approx.)—News. 10.10—News in Spanish.  
**VIENNA**, 10.0—News. 10.45—Dance Music and Song Refrains.  
**WARSAW**, 10.0—Weather. 10.5—Dance Records.  
**11 p.m.**  
**BRESLAU**, 11.0—Light Orchestral Music.  
**COLOGNE**, 11.0—Variety (contd. from 9.30).  
**DEUTSCHLANDSENDER**, 11.0—Dance Music (contd. from 10.0).  
**FRANKFURT**, 11.0—See 9.30 Cologne.  
**HILVERSUM**, 11.0-11.40—Records.  
**HUIZEN**, 11.0-11.10—Records.  
**KALUNDBORG**, 11.0—Chimes. 11.2-11.30—Juhl-Thomsen Dance Band.  
**KÖNIGSBERG**, 11.0-11.30—Dance Music.  
**LEIPZIG**, 11.0—Dance Music.  
**MADRID (EAJ7)**, 11.0—Dance Music. 11.45—News.  
**PARIS (PTT)**, 11.0—News.  
**RADIO-NORMANDIE**, 11.0—Variety. 11.30—Dance Music.  
**REYKJAVIK**, 11.0—Dance Music.  
**STUTTGART**, 11.0—See 9.30 Cologne.  
**TOULOUSE (Radio-Toulouse)**, 11.0—Concert Version, Figaro (Mozart) (contd. from 10.30). 11.15—Request Programme. 11.30—Viennese Orchestra. 11.50—Songs.  
**VIENNA**, 11.0—Dance Music and Song Refrains. 11.30—Records.  
**12 midnight**  
**BARCELONA**, 12.0—News.  
**FRANKFURT**, 12.0—See Stuttgart.  
**RADIO-NORMANDIE**, 12.0—Dance Music.  
**REYKJAVIK**, 12.0—Dance Music.  
**STUTTGART**, 12.0—Dance Music.  
**TOULOUSE (Radio-Toulouse)**, 12.0—News. 12.5—Opera Arias. "Sigurd" (Reyer). "Boris Godunov" (Mussorgsky). "Le roi malgré lui" (Chabrier), and "The Pearl Fishers" (Bizet). 12.05-12.30—Orchestra. Selection, "Maretta" (Straus). Italian Serenade (Wolf).  
**1 a.m. (Thursday)**  
**RADIO-NORMANDIE**, 1.0—News. 1.10—Dance Music.

**NATIONAL**  
 For Time Signals, see Monday  
 10.15 a.m. (Droitwich)—Service.  
 10.30 (Droitwich)—Weather Forecast.  
 10.45—Cinema Organ.  
 11.15—Records.  
 11.50—Rutland Square and New Victoria Orchestra.  
 1.0 p.m.—New Records.  
 2.0—Laddie Clarke and the Imperial Hydro Hotel Orchestra. A Life on the Ocean (Binding). Waltz, Nights of Gladness (Ancliffe). Sheila and Jimmy (Williams). New Sullivan Selection. Japanese Sandman. Lady Rainbow (Ewing). Fantasy, Madam Butterfly (Puccini). Selection, Show Boat (Kern). Sanctuary of the Heart (Kotelbey).  
 3.0—Evensong from Westminster Abbey.  
 4.0—Records.  
 4.45—Organ Recital.  
 5.15—The B.B.C. Dance Orchestra.  
 6.0—"The First News."  
 6.30—"From Plainsong to Purcell." The Foundations of English Music.  
 6.50—Nugent Monck: "The Norwich Players."  
 7.10—Short Story: "An Evening of Destiny," by J. K. P. Wallis, read by the Author.  
 7.30—"Oliver Twist." A Drama from the work of Dickens, by J. Comyns Carr. Revised for broadcasting and produced by Howard Rose.  
 9.0—Dale Smith (Baritone). "Just So Songs" (Kipling) (Edward German).  
 9.30—"The Second News."  
 10.0—A Short Mid-Week Service, conducted by the Rev. W. H. Elliott, relayed from St. Michael's, Chester Square.  
 10.15—"Charles Lamb." Desmond MacCarthy.  
 10.30—Ellen Ballon (Pianoforte). Toccata and Fugue in D minor (Bach). Scherzo in E minor (Mendelssohn). Waltz in D flat, Waltz in E minor, Scherzo in C sharp (Chopin). Toccata in A (Jonas). Third Concert Study (Sternberg). Mephisto Waltz (Liszt).  
 11.10—A letter to William Wordsworth, Jan. 30, 1801—"A Londoner in Grain," by Charles Lamb. Read by Ronald Watkins.  
 11.15-12.0 (Droitwich)—Dance Music. Jack Jackson and his Band.

**REGIONAL**  
 For Time Signals, see Monday  
 10.15-10.45 a.m. (except Midland)—Droitwich  
 10.45—Bath Pump Room Orchestra. Ballet Suite, Britannia's Realm (Landon Ronald). Scherzo (A Midsummer Night's Dream) (Mendelssohn). Entrance of the Little Fauns (Pierne). Solemn Melody (Davies). Suite, In a Toy Shop (Engleman). Sarum (Robrecht). Overture, The Merry Wives of Windsor (Nicolai). Preludio Sinfonico (de Micheli). Selection, Streamline (Ellis).  
 11.45—Records: Eileen Joyce (Pfitzner); Elsie Suddaby (Soprano).  
 12.20 p.m.—The Belfast Wireless Orchestra. Ruth George (Soprano). 1.20—Organ Recital.  
 2.0—The Western Studio Orchestra.  
 3.0 (Scottish till 3.25)—The Tower Orchestra.  
 3.30 (Scottish)—Mid-week Service.  
 4.0—Walford Hyden Magyar Orchestra.  
 4.45—Records.  
 5.15—The Children's Hour.  
 6.0—"The First News."  
 6.30 (London, Scottish)—The Reel Players. Robert Burnett (Baritone). Hunter Macmillan (Pianoforte).  
 6.30 (Midland)—"Do you Remember?" Songs from The Co-optimists, introduced by Davy Burnaby.  
 6.30 (North)—Gardening Talk.  
 6.30 (West)—Western Anthology.  
 6.30 (Belfast)—Records.  
 6.50 (North)—Northern Orchestra. Lilian Cooper (Soprano).  
 6.50 (West)—Records.  
 7.0 (Midland)—Records.  
 7.15 (London, Midland, Belfast)—Wireless Military Band. Ronald Gourley (Entertainer).  
 7.15 (Scottish)—"New Books."  
 7.15 (West)—The Cardiff Singers. Watcyn Watcyns (Bass-Baritone).  
 7.30 (Scottish)—Studio Orchestra. Valentine Dunn (Readings).  
 7.45 (West)—Variety: Talbot O'Farrell; Alfredo and his Gypsy Orchestra.  
 8.0 (ex. West)—Café Colette Orchestra, with Lily Birawer, Marcel de Haes, Les de Pokorny.  
 8.30 (West)—Records.  
 8.45—"Blue Beard." (See National, Wednesday, 7.30 p.m.).  
 10.0—News Summary.  
 10.10—Dance Records.  
 10.30-12.0 (Midland till 11.15)—Jack Jackson and his Band.

THURSDAY December 27

PRINCIPAL EVENTS

**SYMPHONY CONCERTS**  
 P.M.  
 7.45 Rome: 1st Symphony, Beethoven, etc.  
 8.10 Bratislava: Mysliveček, Tchaikovsky, etc.  
 8.10 Brno, Prague: Bizet, Lalo, Dvořák.  
 8.45 Radio-Paris: Christmas Oratorio (Bach), excerpts, etc.  
 9.15 Kalundborg: Schumann, 'Cello concerto, etc.  
 11.0 Stuttgart, Frankfurt: Symphony orchestra.  
**LIGHT CONCERTS**  
 P.M.  
 3.0 Cologne, Berlin: Orchestral and vocal.  
 5.10 Hilversum: A.V.R.O. orchestra.  
 5.25 Leipzig: Light orchestra.  
 6.15 Brussels No. 1: Popular programme.  
 6.30 Strasbourg: Light Orchestral.  
 7.0 Kalundborg: Czech and Hungarian music.  
 7.0 Warsaw: Operetta music.  
 7.30 Oslo: Christmas Concert.  
 7.40 Frankfurt: New German music.  
 8.0 Brussels No. 1: Radio orchestra.  
 8.0 Brussels No. 2: Operatic programme.  
 8.45 Poste Parisien: Gala concert.  
 9.15 Brussels No. 1: Light orchestral.  
 9.40 Cologne: Chamber Orchestra.  
 9.40 Hilversum: Light orchestral.  
 10.0 Königsberg: Suppé, Strauss, etc.  
 10.30 Radio-Paris, Strasbourg: Pierné music.  
 11.0 Hamburg: Band.  
**OPERAS**  
 P.M.  
 6.25 Vienna: "The Violet" (Bittner), from the State Opera House.  
 6.30 Bucharest: Opera relay.  
 7.0 Stockholm: "Carmen" (Opera House).

7.40 Leipzig: "Pagliacci" (gramophone).  
 7.40 Munich: "Tristan and Isolde," Act 2.  
**CHAMBER MUSIC**  
 P.M.  
 2.30 Paris (PTT): Pianoforte, violin.  
 4.50 Munich: Song, violin, pianoforte (Beethoven).  
 7.40 Cologne: Quartets (Haydn, Mozart).  
**RECITALS**  
 P.M.  
 12.35 Hilversum: Organ.  
 4.20 Leipzig: Song, guitar, etc. (Weber).  
 5.15 Warsaw: Pianoforte.  
 6.30 Oslo: Folk-music.  
 6.40 Hilversum: Pianoforte.  
 8.15 Cologne: Schubert's "Winterreise."  
 8.30 Monte Ceneri: American songs.  
 9.0 Strasbourg: Song, Viola d'amore.  
 9.10 Huizen: Organ.  
 10.0 Hamburg: Hamburg composers, songs.  
**PLAYS**  
 P.M.  
 5.55 Hamburg: "Käthen von Heilbronn," with Pfitzner's music.  
 8.30 Paris (PTT): "Professor Klenov" (Bramsen).  
**TALKS**  
 P.M.  
 6.5 Beromünster: "Contemporary German Song" with illustrations.  
 9.30 Königsberg: Reading from Plato.  
**DANCE MUSIC**  
 P.M.  
 6.0 Munich; 7.40, Breslau, etc.; 7.45-12 midnight: Berlin; 9.35, Warsaw; 10.0, Kalundborg; 10.30, Paris (PTT); 10.50, Hilversum; Vienna.

Hours of Transmission in Greenwich Mean Time

6 a.m.

BERLIN, 6.0—News. 6.15—Arthur Damp Orchestra.
BRESLAU, 6.0—Time; News. 6.15—See Cologne.
COLOGNE, 6.0—Hymn; Time; News. 6.15—Station Chamber Quintet.
DEUTSCHLANDSENDER, 6.0—News. 6.15—Records with Bruno Fritz.
FRANKFURT, 6.0—See Munich.
HAMBURG, 6.0—News. 6.15—See Berlin.
KÖNIGSBERG, 6.0—News. 6.15—See Berlin.
LEIPZIG, 6.0—News. 6.15—See Berlin.
MÜNICH, 6.0—Station Orchestra. Conductor: Hagel.
PARIS (Radio-Paris), 6.45—Gym.
PRAGUE, 6.0-6.30—Gym; Music.
ROME, 6.45—Gym; Time.
STUTTGART, 6.0—See Munich.
WARSAU, 6.0—Gym. 6.7—Records. 6.15—News. 6.25—Records. 6.35—For Housewives. 6.40—Announcements. 6.50—Light Music.

7 a.m.

BERLIN, 7.0—Gym.
BRESLAU, 7.5—See 6.15 Cologne.
COLOGNE, 7.0—Water Level. 7.5—Quintet (contd. from 6.15). 7.30—Time; Weather. 7.35—Gym. 7.50—Talk: House Property.
DEUTSCHLANDSENDER, 7.45—Gym.
FRANKFURT, 7.0—See 6.0 Munich.
HAMBURG, 7.0—Weather; Medical Talk. 7.10-7.45—Announcements; Records.
HILVERSUM, 7.40—Records.
HUIZEN, 7.40—Records.
KALUNDBORG, 7.30—Service.
KÖNIGSBERG, 7.0-7.10—Prayers.
LEIPZIG, 7.30—Gym.
MÜNICH, 7.0—Orchestra (contd. from 6.0). 7.15—Gym for Women.
PARIS (Poste Parisien), 7.10—Fanfare; Records. In the Interval at 7.30: Press Review.
PARIS (Radio-Paris), 7.0—Records. 7.15—News.
ROME, 7.0-7.15—News; Hints for Housewives; Weather.
STUTTGART, 7.0—See 6.0 Munich.
TURIN, 7.0-7.15—Time; Market Prices; Hints for Housewives.

8 a.m.

BERLIN, 8.30—For Children.
BRESLAU, 8.0—Time; News. 8.15—Light Music on Records. In the Interval: News.
DEUTSCHLANDSENDER, 8.40—Domestic Science.
HILVERSUM, 8.0—Records.
HUIZEN, 8.0—Records.
KÖNIGSBERG, 8.35—For Housewives. 8.50—Gym.
MÜNICH, 8.10—For Housewives.
PARIS (Poste Parisien), 8.0—Records. In the Interval at 8.20: Press Review. 8.45—Cookery Hints.
PARIS (Radio-Paris), 8.0—Records.

9 a.m.

BERLIN, 9.0—News; Market Prices. 9.30—Records; Announcements.
COLOGNE, 9.0—Time; News. 9.10—Talk: Echoes of Christmas. 9.45—Historical Reading (Schulz).
DEUTSCHLANDSENDER, 9.0—News.
FRANKFURT, 9.0—News. 9.45—For Housewives.
HAMBURG, 9.50—News.
HILVERSUM, 9.0—Records. 9.40—Service. 9.55—Records.
HUIZEN, 9.40—Records. 9.55—Religious Programme.
KÖNIGSBERG, 9.15—For Women. 9.40—News.
LEIPZIG, 9.0—Exchange; Announcements; Weather; Water Level.
MÜNICH, 9.50—Market Prices.
PRAGUE, 9.5—News in German. 9.10—Records. 9.15—Kostal Orchestra.
STUTTGART, 9.0—News. 9.15—Paul Coenen Recital by the Composer. Extracts from the Pianoforte Suite: (a) Humoresque; (b) Melody, (c) Burlesque. Rhapsodic Pianoforte Sonata. 9.45—Pianoforte Trio in E flat (Beethoven), by the Witzbacher Trio.

10 a.m.

BERLIN, 10.25—Exchange.
BRESLAU, 10.30—Time; News; Water Level. 10.45—Farmers.
COLOGNE, 10.0—Light Music on Records. 10.20—Announcements. 10.40—For Farmers.
DEUTSCHLANDSENDER, 10.30—For Farmers. 10.50—Greetings.
FRANKFURT, 10.0—Concert. 10.30—Announcements; Exchange; Weather.
HAMBURG, 10.0—Liszt Records. 10.30—See Königsberg.
HILVERSUM, 10.0—Records. 10.10—Linsky (Violin) and Veen (Pianoforte). 10.40—For Housewives.
HUIZEN, 10.0—Religious Programme. 10.25—Records.
KALUNDBORG, 10.15—Boys visit Copenhagen.
KÖNIGSBERG, 10.5—For Farmers. 10.30—Danzig State Theatre Orchestra. Conductor: Kallipke.
LEIPZIG, 10.0—Announcements; Records. 10.30—News. 10.45—For Farmers.
MÜNICH, 10.0—For Farmers. 10.20—News. 10.30—Announcements; Records.
OSLO, 10.15—Service. 10.50—Exchange.
PRAGUE, 10.0—Kostal Orchestra. 10.55—For Farmers.
STUTTGART, 10.0—Trio (Beethoven) (contd. from 9.45). 10.15—Concert. 10.45—Weather; For Farmers.
TURIN, 10.30—Orchestra.

11 a.m.

BERLIN, 11.0—See 10.30 Königsberg.
BEROMÜNSTER, 11.0—German Opera Music by the Station Orchestra. Conductor: Gilbert. 11.30—News. 11.40—Light Music and New Operetta Music by the Station Orchestra. Conductor: Gilbert.
BRESLAU, 11.0—Small Station Orchestra. Conductor: Topitz.
BUDAPEST, 11.5—Orchestra. 11.30—News.
COLOGNE, 11.0—See Breslau.
DEUTSCHLANDSENDER, 11.0—See Breslau.
FRANKFURT, 11.0—See Breslau.
HAMBURG, 11.0—For Housewives. Weather; Shipping Notes. 11.15—See 10.30 Königsberg.
HILVERSUM, 11.0—For Housewives. 11.10—Van Brück's Orchestra. In the Interval: Records.
HUIZEN, 11.0—Records. 11.10—Religious Address. 11.40—Police Messages. 11.55—K.R.O. Orchestra. Conductor: Marius van 't Woud.
KALUNDBORG, 11.2—Bendix String Ensemble.
KÖNIGSBERG, 11.0—Orchestra (contd. from 10.30).
LEIPZIG, 11.0—Concert.
MONTE CENERI, 11.0—Announcements. 11.5—Orchestra. In the Interval at 11.29: Time; Weather. 11.55—News.
MÜNICH, 11.0—Records of Light Music.
OSLO, 11.55—Nauen Time Signal.
PRAGUE, 11.0—For Farmers. 11.10—Records. 11.25—News. 11.35—Orchestra.
ROME, 11.30—Records.
SOTTENS, 11.30—News. 11.40—Records.
STUTTGART, 11.0—See Breslau.
TURIN, 11.0—Orchestra. 11.30—Records. 11.45—News.
VIENNA, 11.0—Vienna Symphony Orchestra. Conductor: Holzer. Triumph Overture (Suppe). Offenbach Ballet Suite (Senger). Japanese Serenade (Yoshitomo). Waltz, Christmas Roses (Waldteufel). Potpourri, Ein Melodientraum (Urbach).
WARSAU, 11.0—Fanfare; Weather. 11.5—Press Review. 11.10—For Children: Talk and Christmas Carol. 11.30—Station Symphony Orchestra. Conductor: Rybicki. Zygodto (Violin).

12 noon

BERLIN, 12.0—Mid-day Echoes. 12.15—Light Music on Records.
BEROMÜNSTER, 12.0—Light Music (contd. from 11.40). 12.25—Weather; Exchange. 12.30-12.40—A Story for Children.
BRESLAU, 12.0—Orchestra (contd. from 11.0). In the Interval at 12.15: Time; News.
BRUSSELS (No. 1), 12.0—Radio Orchestra. Conductor: André.
BRUSSELS (No. 2), 12.0—Records.
BUDAPEST, 12.0—Orchestra. 12.30—The Stepat Balalaika Orchestra.

COLOGNE, 12.0—News; Greetings. 12.15—Famous Tenor Arias on Records.
DEUTSCHLANDSENDER, 12.0—Records. 12.45—News.
FRANKFURT, 12.0—Time; Local Review; News; Announcements. 12.15—Records.
HAMBURG, 12.0—Exchange. 12.20—Musical Programme.
HILVERSUM, 12.0—Orchestra (contd. from 11.0). 12.35—Palla (Organ). 12.55—Van Brück's Orchestra.
HUIZEN, 12.0—Orchestra (contd. from 11.55).
KALUNDBORG, 12.0—Bendix String Ensemble.
KÖNIGSBERG, 12.0—Announcements; News. 12.5—Records.
LEIPZIG, 12.0—News; Time. 12.10—Records.
MONTE CENERI, 12.5—Sports Notes. 12.15-12.30—Records.
MÜNICH, 12.0—Records of Light Music. 12.15—News. 12.25—Small Station Orchestra. Conductor: Kloss.
OSLO, 12.0—Records. In the Interval at 12.15: Weather; For Farmers, and at 12.45: Exchange.
PARIS (Poste Parisien), 12.5—Records: Military Music. 12.15—Records. 12.25—News. 12.35—Concert.
PARIS (PTT), 12.0—Tourist Talk. 12.15—Variety. 12.30—Records of Russian Music.
PARIS (Radio-Paris), 12.0—Protestant Address. 12.30—Victor Pascal's Orchestra. Italian Song (Volpatti). Bird Songs at Eventide (Coates). Two Hearts and a Waltz Refrain (Stolz). Chanson de route (Hahn). Silver Shoe Dance (Clusam). Demande et réponse (Coleridge-Taylor). Liebesfreud (Kreisler). Dancing Tambourin (Pola). Selection, "Cocoricó" (Ganne). Esmeralda (Santis). Erinnerung au Wien (Romberg). Tes yeux (Bonincontro). Selection, "Apollo et Hyacinthus" (Mozart). Bambolinda (Lehár). September Waltz (Godin).
PRAGUE, 12.0—Orchestra. 12.35—Talk. 12.45—Records. 12.55—Exchange.
ROME, 12.0—Time; Announcements. 12.5—The Four Musketeers—Parody (Nizza-Morbelli)—Music by Storaci. 12.35—News; Exchange.
SOTTENS, 12.0—Fridolin and his Partner. 12.15—Records.
STOCKHOLM, 12.0—Nielsen (Violin), de la Berg (Clarinet) and Kjellberg (Pianoforte). 12.40—Talk: Christmas Fare.
STUTTGART, 12.0—Time; Local News. 12.5—News. 12.15—See Frankfurt.
TURIN, 12.0—Time; Announcements. 12.5—"The Four Musketeers"—Parody (Nizza-Morbelli)—Music by Storaci. 12.35—Exchange. 12.45—Records.
VIENNA, 12.0—News. 12.10—Vienna Symphony Orchestra. Wölffe (Bassoon).
WARSAU, 12.0—News; Exchange. 12.10—Orchestra (contd. from 11.30).

1 p.m.

ATHLONE, 1.30—Time; Weather; Exchange; Records.
BERLIN, 1.0—News. 1.15—Instrumental Solos on Records.
BRESLAU, 1.5—Exchange. 1.10—Records. 1.35—Greetings. 1.40—Market Prices.
BRUSSELS (No. 1), 1.0—News. 1.10—Records.
BRUSSELS (No. 2), 1.0—News. 1.10—Orchestra. Conductor: Douliet. Stad (Songs).
BUDAPEST, 1.0—The Septet Balalaika Orchestra. 1.40—Hints for Housewives.
COLOGNE, 1.0—News. 1.15—Variety.
DEUTSCHLANDSENDER, 1.55—Announcements.
FRANKFURT, 1.0—Records. 1.15—Time; News. 1.30—Industrial Review. 1.45—Time; Exchange. 1.55—Weather.
HAMBURG, 1.0—Musical Programme. 1.15—News. 1.30—Choral Records.
HILVERSUM, 1.0—Orchestra (contd. from 12.55). 1.40—Records.
HUIZEN, 1.0—Orchestra (contd. from 11.55). 1.40—Handicrafts.
KALUNDBORG, 1.40—Reading.
KÖNIGSBERG, 1.0—News. 1.5—Records.
LEIPZIG, 1.0—News. 1.10—Records. 1.45—Reading.
MÜNICH, 1.0—News. 1.20—Old Franconian Music. Schicker (Vio-

lin), Wilhelmine Holzinger-Rauh (Pianoforte). Sinfonia da Camera (Richter). Violin Concerto (Telemann). Suite (Telemann).
PARIS (Poste Parisien), 1.0—Exchange. 1.15—Exchange. 1.19—Variety. 1.40—Announcements.
PARIS (PTT), 1.0—Records of Russian Music. 1.30—Colonial Programme.
PARIS (Radio-Paris), 1.0—Pascal's Orchestra (contd. from 12.30). In the Interval at 1.20: Exchange.
STOCKHOLM, 1.0—Lindberg String Ensemble.
STUTTGART, 1.0—Records.
TURIN, 1.0—Records. 1.15-1.25—Exchange.
VIENNA, 1.0—Announcements.

2 p.m.

ATHLONE, 2.0-2.30—Records.
BERLIN, 2.0—Exchange; Market Prices. 2.25—"The Sun shines on the World"—Sequence (Schlosser).
BEROMÜNSTER, 2.30—Records.
BRESLAU, 2.10—Children's Christmas Songs by Anni Bernert (Soprano). 2.40—Report from a Ratob Hat Factory.
COLOGNE, 2.0—For Young Girls. 2.30—Exchange. 2.50—Topical Talk.
DEUTSCHLANDSENDER, 2.0—Announcements. 2.15—"In Wonderland"—Fairy Tale (Börker), with Emmi Goedel and a Children's Choir. 2.40—Dialogue: Yuletide among the Nordic Peoples.
FRANKFURT, 2.0—Announcements. 2.15—For Children.
HAMBURG, 2.0—Exchange. 2.40—Shipping and Aviation Notes.
HILVERSUM, 2.0—Records. 2.10—Gerrit Kijk in de Vegte (Tenor). Das Veilchen (Mozart). Lieblingsplätzchen (Mendelssohn). On Wings of Song (Mendelssohn). O, wüsst' ich den Weg zurück (Brahms). Ave Maria (Franck). Tristesse du soir (Massenet). Two Songs (Rachmaninov). 2.40—Dressmaking Lesson.
HUIZEN, 2.0—Handicrafts. 2.40—For Women.
KALUNDBORG, 2.0—Nielsen String Ensemble.
KÖNIGSBERG, 2.0—Markets. 2.15—Book Review. 2.30—Eurythmics.
LEIPZIG, 2.0—Art Notes. 2.10—Petronella Hofmann (Contralto); Elfriede Clemen (Pianoforte). 2.40—Exchange.
MÜNICH, 2.0—Josef Ponten reads from his Novel, "Die Vater zogen aus." 2.30—For Women. 2.50—Weather.
MOSCOW (No. 1), 2.15—For Children.
PARIS (Poste Parisien), 2.0—Exchange.
PARIS (PTT), 2.0—Records: Parisian Songs. 2.30—Sonata Recital. Third Movement and Finale from the Kreutzer Sonata (Beethoven). Grave and Scherzo from the Pianoforte Sonata in B flat minor (Chopin). Allegretto from the Sonata in A for Pianoforte and Violin (Franck).
PRAGUE, 2.45—Exchange. 2.55—Dance Mus'c.
STUTTGART, 2.0—Adolf Jensen Songs by Marta Siegel. 2.15 Trio in G for Pianoforte, Violin and Cello (Haydn), by Thea Esterl-Bischoff, Erich Schmale and Willy Esterl. 2.30—For Women.
VIENNA, 2.0—Weather; Markets. 2.20—For Unemployed Youth. 2.40—Christmas Fairy Tale (Adalbert Süßer).
WARSAU, 2.30—Announcements; Exchange. 2.45—Records; Light Music.

3 p.m.

BERLIN, 3.0—See Cologne.
BEROMÜNSTER, 3.0—See Sottens.
BRESLAU, 3.0—The "Glück-Auf" Band. Conductor: Gielnik.
BUDAPEST, 3.10—For Women.
COLOGNE, 3.0—Station Orchestra. Conductor: Kühn. Erika Maus-Wagner (Soprano). Part I.—Spanish Music. Spanish Dance (Falla). Barcarolle (Albeniz). Serenade (Albeniz). Soprano Songs: Spanish Folk Dance (d'Albert), Nada (Burgmeier). Piece (Valverde). Three Spanish Dances (Granados). Part II.—Light Music. Suite for Small Orchestra (Beyer-Triltsch). Variations on Hopsa mey Lorche (Rosentengel). Polka, Jägerlatein (Komzak).
DEUTSCHLANDSENDER, 3.0—See Munich.
FRANKFURT, 3.0—See Munich.
HAMBURG, 3.0—See Cologne.
HILVERSUM, 3.0-3.25—Songs (contd. from 2.10). 3.40—Programme by Antoinette van Dijk.

THURSDAY Dec. 27

HUIZEN, 3.0—For Women. 3.10—Records. 3.40—Bible Reading.
KALUNDBORG, 3.0—Nielsen String Ensemble.
KÖNIGSBERG, 3.0—Small Station Orchestra. Conductor: Wilcken.
LEIPZIG, 3.0—Symphony Orchestra. Conductor: Weber. Fritz Weitzmann, and Friedbert Sammler (Pianoforte).
MONTE CENERI, 3.0—See Sottens.
MORAUSKA-OSTRAVA, 3.45—Talk.
MOSCOW (No. 1), 3.0—News. 3.30—Communist Party Programme.
MÜNICH, 3.0—Station Orchestra. Conductor: Kloss.
PARIS (Poste Parisien), 3.15—Exchange. 3.45—Exchange.
PRAGUE, 3.0—Dance Music. 3.45—Talk on Economics. 3.55—Play for Children.
ROME, 3.30—Children's Radio Review. 3.50—News; Exchange.
SOTTENS, 3.0—Ballet Music. Radio Suisse Romande Orchestra. Conductor: Echenard. Extracts, "Céphale et Procris" (Grétry), "The Queen of Sheba" (Gounod), "Coppélia" (Delibes), "Isoline" (Messager) and "Ritter Pasmán" (Strauss). 3.45—Mlle. Sorel Nitzberg (Pianoforte).
STUTTGART, 3.0—Orchestra. Conductor: Schröder. Overture, "Mignon" (Thomas). Ballet Music, "Coppélia" (Delibes). Norwegian Artists' Carnival (Svendsen). Prelude (Rachmaninov). Song without Words (Tchaikovsky). Hungarian Rhapsody (Liszt). Wiegeli (Schubert). Invitation to the Dance (Folk Song). Rhapsody on Swabian Folk Songs (Kämpfert).
TRIESTE, 3.45—Ballata Programme.
TURIN, 3.35—News. 3.45—For Children.
VIENNA, 3.5—News. 3.10—Vienna Symphony Orchestra. Conductor: Holzer. Overture, "Hella" (Pausperit). Waltz, Herkulesbad (Strauss). Scene Arlequin (Popper). The Sacred Hour (Ketelbey). Strauss Potpourri (Lindemann). Overture, "Boccaccio" (Suppe).

4 p.m.

BERLIN, 4.0—See 3.0 Cologne. 4.30—Christmas Music by Fritz Heitmann (Organ), from Berlin Cathedral.
BEROMÜNSTER, 4.0—See Sottens.
BRATISLAVA, 4.20—Slovak Folk Songs. Stefan Hoza (Tenor). 4.45—German Lesson for Slovaks.
BRESLAU, 4.0—Band (contd. from 3.0). 4.30—Market Prices. 4.35—Cookery Hints. 4.55—Review of the December Number of "Der Oberschlesier".
BRNO, 4.20—Records. 4.30—Jindrich Songs, by Anna Dolejsová. 4.50—German Transmission: Review of the Year; Art Review.
BRUSSELS (No. 1), 4.55—Announcements.
BRUSSELS (No. 2), 4.55—Announcements.
BUDAPEST, 4.0—For Farmers. 4.35—Edith Farnadi (Pianoforte).
COLOGNE, 4.0—Orchestra (contd. from 3.0). 4.30—There's the Rub. Dialogue with Heinz Herkrath (Pianoforte). 4.55—Original Pianoforte Compositions for the Left Hand by Rudolf Horn. Chaconne (Bach-Brahms). Prelude and Fugue (Reger).
DEUTSCHLANDSENDER, 4.0—See 3.0 Munich. 4.30—Talk, by Bernhard Knust; Broadcasting and the Law. 4.40—Josef Ponten reads from his Book "Die Väter zogen aus."
FRANKFURT, 4.0—See 3.0 Munich. 4.30—Talk: Laws regarding Wireless. 4.40—Hans Förster Songs.
HAMBURG, 4.0—See 3.0 Cologne. 4.30—Talk: German Family Names. 4.45—For Young People.
HILVERSUM, 4.0—Programme by Antoinette van Dijk. 4.10—A.V.R.O. Orchestra. Conductor: Treep. Overture, "Der Erlenhügel" (Kuhlau). Ballet, "Faust" (Gounod). 4.40—For Children.
HUIZEN, 4.0—H. Smit Duyzentkunst (Organ) and J. Smit Duyzentkunst (Baritone). 4.40—Handwork for Children.
KALUNDBORG, 4.0—Christmas Festival of the Copenhagen Radio Club. Addresses. Community Singing. Organ Prelude. Carol (Weyse). Monologues. Children's Roundelays. Song (Kröyer).
KÖNIGSBERG, 4.0—Orchestra (contd. from 3.0). 4.40—See Deutschlandsender.

THURSDAY Dec. 27

4 p.m. (contd.)

LEIPZIG, 4.0—Film Review. 4.20—Weber Music. Walter Kretschmar (Songs to the Guitar), Friedberg Sammler (Pianoforte), Siegfried Schneider (Flute), Otto Nickel (Viola). Songs: Die Zeit, Heimlicher Liebe Fein, Der arme Minnesänger. Guitar and Pianoforte: Divertimento. Guitar, Flute and Viola: Minuet, "Donna Diana." Songs: Die fromme Magd. Abschied, Alte Weiber, Betterlied. 4.50—Exchange; Time; Weather.

MONTE CENERI, 4.0—See Sottens.

MORAVSKA-OSTRAVA, 4.20—Sonata for Violin and Pianoforte (Kalk), by Marta Citova and the Composer. 4.55—German Transmission: The Schreyer Quartet; Talk: The Charm of Winter.

MOSCOW (No. 1), 4.0—Communist Party Programme. 4.30—Literary and Musical Programme. (a) Heroes Biographies, (b) Songs of the Ukraine.

MUNICH, 4.0—Orchestra (contd. from 3.0). 4.30—Talk: An Old Bavarian Custom. 4.50—Beethoven Music, by Maria Wutz (Soprano), Staab (Pianoforte), Raba (Violin), Margarete Raba-Hagen (Pianoforte). Mignon. Wonne der Wehmut. Neue Liebe, neues Leben. Die laute Klage. Violin Sonata in A.

OSLO, 4.0—Orchestra, from the Britannia Hotel. Overture, "Il Seraglio" (Mozart). Romance (Rubinstein). Mazurka, La Czarine (Ganne). Selection, "A Waltz Dream" (Straus). Norwegian Dance (Grieg). Christmas Carol (Minsas). Les esquisses (Petre). Waltz (Schubert-Clusam).

PARIS (Poste Parisien), 4.50—Exchange.

PARIS (PTT), 4.0—Modern French Music. Escapes (Ibert). Extract, "Aeschylus" (Milhaud). Le Rugby (Honegger). 4.30—Records.

PARIS (Radio-Paris), 4.0—Exchange.

PRAGUE, 4.0—Play (contd. from 3.55). 4.20—Old Czech Music. Langer (Pianoforte). Largo in F minor (Benda). Presto in F (Benda). Eglogue in G (Tomasek). Rhapsody in G minor (Vorisek). Carrice (Masek). 4.40—Records. 4.45—For Beekeepers. 4.55—German Transmission: "New Year"—Sketch for Young People; Book Review; For Farmers; News.

RADIO-NORMANDIE, 4.0—Dance Music. 4.30—For Children. 4.45—Dance Music.

ROME, 4.0—Concert. 4.55—Weather.

SOTTENS, 4.0—Mlle. Sorel Nitzberg (Pianoforte). 4.15—Popular Music. Radio-Suisse Romande Orchestra. Conductor: Echenard.

STOCKHOLM, 4.5—Service. 4.30—Records.

STUTTGART, 4.0—Orchestra (contd. from 3.0). In the Interval at 4.30: Talk: Laws regarding Wireless.

TURIN, 4.0—For Children. 4.10—Malatesta Chamber Orchestra. 4.55—Weather.

VIENNA, 4.0—Talk: Gerhard van Swieten. 4.20—Talk: Winter Photography in the Home and Out of Doors. 4.30—Sonata in F (Strauss). Maria Forst (Cello). Oskar Dachs (Pianoforte).

WARSAW, 4.0—"The Clouds"—Play (Aristophanes). 4.50—Letter-Box.

5 p.m.

BARI, 5.40—Italian Lesson for Greeks.

BERLIN, 5.0—Announcements. 5.5—For Young People. 5.30—Talk. 5.40—Talk: Winter Solstice Folk Customs.

BEROMÜNSTER, 5.0—Records. 5.30—For Women.

BRATISLAVA, 5.0—Hungarian Transmission: Sports Talk for Women; Accordion Recital of Christmas Carols; Talk for Farmers. 5.45—Educational Talk.

BRESLAU, 5.0—Review (contd. from 4.55). 5.15—Talk by Dr. Knust: Laws regarding Wireless. 5.25—Interview with Dr. Friedrich Bergius. 5.50—Programme Announcements; Weather.

BRNO, 5.0—German Transmission (contd. from 4.50). 5.25—Records. 5.35—Theatre and Film Review. 5.50—Local News; For Housewives.

BRUSSELS (No. 1), 5.0—Operetta Records. 5.30—For Children.

BRUSSELS (No. 2), 5.0—Sound Film Music. Radio Orchestra. Conductor: André. 5.45—For Children.

BUCHAREST, 5.0—Time; News. 5.50—Talk.

BUDAPEST, 5.0—Pianoforte (contd. from 4.35). 5.10—Talk. 5.40—Trombone Recital.

COLOGNE, 5.0—Pianoforte (contd. from 4.55). 5.25—Talk: Scientific Discoveries. 5.45—Time; Weather Exchange; Sports Notes.

DEUTSCHLANDSENDER, 5.0—Folk Songs by Margarete Vogt-Gebhard (Songs). Grete von Zieritz (Pianoforte), Frenz (Lute). 5.30—Report: Aerial Defence.

FRANKFURT, 5.0—Grammar Catechism. 5.10—Book Review. 5.25—Christmas and New Year, 1914 in the Trenches—Programme of Letters, Poems and Descriptions. 5.45—Weather; Exchange; Announcements; Time. 5.50—Light Music. Constance Municipal Orchestra. Conductor: Wogritsch.

HAMBURG, 5.0—Recollections of an African Explorer—An Interview with Dr. Reichenow. 5.45—Announcements. 5.55—Scenes, "Kätchen von Heilbronn"—Romantic Play (Kleist). Music by Pfitzner. Station Symphony Orchestra. Conductor: Maasz.

HILVERSUM, 5.0—For Children. 5.10—A.V.R.O. Orchestra.

HUIZEN, 5.0—Handwork for Children. 5.10—Records. 5.25—Leidner (Viola) and Koopman (Pianoforte). Sonata in E minor (Marchet). Sonata (Hammer). Records. Sonata (Bruckner Fock).

KALUNDBORG, 5.2—Exchange. 5.15

STOCKHOLM, 5.0—Records. 5.30—Christmas Variety.

STUTTGART, 5.0—Spanish Lesson. 5.15—Talk. 5.30—Records.

TURIN, 5.0—For Farmers.

VIENNA, 5.0—Announcements. 5.5—Talk: Adam Mickiewicz, the Polish Romantic Poet. 5.25—Talk: The Workers and the Land. 5.45—Talk: The Cosmic Rays.

WARSAW, 5.0—For Farmers. 5.15—Tatiana Danew (Pfte.). Concerto (Bach). Davidsbündlertänze (Schumann). 5.45—Book Review.

6 p.m.

ALGIERS, 6.0—For Children. 6.30—English Lesson. 6.45—Exchange. 6.55—Weather.

ATHLONE, 6.0—For Children. 6.45—News.

BARI, 6.15—Weather; News in Foreign Languages.

BELGRADE, 6.0—Talk.

BERLIN, 6.0—Records: Quintet for Clarinet, Two Violins, Viola and Cello (Mozart) by Philipp Dreisbach and the Wendling String Quartet. 6.30—Talk: Laws regarding Wireless. 6.40—Evening Echoes.

BEROMÜNSTER, 6.0—Weather; Traffic Report. 6.5—Talk with Illustrations: Contemporary Ger-

Mazurka (Chopin). Rigoletto Paraphrase (Verdi-Liszt).

HUIZEN, 6.0—Viola and Pianoforte (contd. from 5.25). 6.25—Talk. 6.40—Police Messages; Religious News. 6.55—Record.

KALUNDBORG, 6.0—News. 6.30—Talk: The European Labour Situation.

KÖNIGSBERG, 6.0—Announcements. 6.10—Topical Talk. 6.25—"The Parable of German Sacrifice"—Christmas War Play (Heinz Steguweit).

LAHTI, 6.0—Talk. 6.25—Station Orchestra. Conductor: Linko. Arnold Tilgman (Songs).

LEIPZIG, 6.0—Light Music (contd. from 5.25). 6.35—Talk: Winter in Fichtelberg and Keilberg.

MONTE CENERI, 6.15—Records: Light Music. 6.45—News.

MORAVSKA-OSTRAVA, 6.10—Medical Talk. 6.30—Variety. Station Orchestra. Conductor: Divis. Bednar (Baritone) and Danyi (Cello).

MUNICH, 6.0—Station Dance Band. Conductor: Aulich.

OSLO, 6.0—Book Review. 6.15—Weather; News. 6.30—Time. 6.31—Norwegian Folk-Music. Orpan (Hardanger Fiddle), Eida (Fiddle).

PARIS (Poste Parisien), 6.25—Exchange. 6.30—For Children.

—Opera in Three Acts (Bittner) from the State Opera House.

WARSAW, 6.0—Records. 6.20—Topical Talk. 6.30—Choral Records. 6.45—Programme Announcements. 6.50—Sports Notes.

7 p.m.

ALGIERS, 7.0—Talk. 7.15—Light Music. 7.45—Lottery Results; Weather.

ATHLONE, 7.0—French. 7.15—Gardening, by G. O. Sherrard. 7.30—Time. 7.31—Station Orchestra.

BARI, 7.10-7.30—Programme for Greece; Greek National Anthem; News in Greek and Records of Greek Music; Marcia Reale. Giovinazza (Blanc).

BERLIN, 7.0-7.40—See Stuttgart. 7.45—"The Year's best Melodies." Small Station Orchestra—Conductor: Steiner, and the Boelcher Dance Band.

BEROMÜNSTER, 7.0—A Village Band and Yodeller (contd. from 6.35). 7.15—"The Beatrice von Watternwyl House, Berne"—Art and History Report.

BORDEAUX-LAFAYETTE, 7.45—Talk.

BRATISLAVA, 7.0—Croatian Christmas Folklore (contd. from 6.45).

BRESLAU, 7.0-7.40—See Stuttgart. 7.40—Dance Music. Station Orchestra. Conductor: Topitz. Station Dance Band. Conductor: Ilgner. Emmy Woebeking (Soprano). Baumann (Tenor) and Sommerfeld (Xylophone).

BRUSSELS (No. 1), 7.0—Orchestra (contd. from 6.15). 7.15—Review for Workers. 7.30—Review for Women; Art Notes.

BRUSSELS (No. 2), 7.0—Economics Talk. 7.15—Bolero (Ravel), on Records. 7.30—News.

BUCHAREST, 7.0—Opera Relay (contd. from 6.30).

BUDAPEST, 7.0—Songs (contd. from 6.55). 7.35—To be announced. 7.50—Variety.

COLOGNE, 7.0—See Stuttgart. 7.40—Chamber Music. Prisca Quartet. String Quartet in C (Haydn). String Quartet in B flat (Mozart).

DEUTSCHLANDSENDER, 7.0—See Stuttgart. 7.40—Variety, with "Good and Evil Spirits, by Eich."

FRANKFURT, 7.0—Time; News. 7.10—See Stuttgart. 7.40—Modern German Music. Station Choir and Orchestra. Conductor: Frick-hoefler. Paul Lohmann (Baritone) and Bernhard Lessman (Violin). Prelude, "Ahasver" (Zschorlich). Music for Violin and Orchestra (Stefan). Baritone, Mixed Choir and Orchestra: Hypertion (Wetz).

HAMBURG, 7.0—See Stuttgart. 7.40—Station Dance Band and Soloists, Conductor: Bolt.

HILVERSUM, 7.0—Pianoforte Recital (contd. from 6.40). 7.10—English Lesson. 7.40—News. 7.45—Variety Concert. The A.V.R.O. Girls' and Kovacs Lajos's Band. Suzie Klein (Songs) and Luciano (Mouth Organ).

HUIZEN, 7.0—Records. 7.10—Press Review. 7.40—News. 7.45—Almelo Male Voice Choir. Conductor: Sommer. In the Interval: Records.

KALUNDBORG, 7.1—Czech and Hungarian Music. The Radio Orchestra. Conductor: Gröndahl. Extract, Slovak Suite (Novak). Presto, Moderato and Molto vivace (Bela Bartok). Two Slav Dances (Brazak). Dances, "The Bartered Bride" (Smetana). 7.50—Talk: The Oxford Movement.

KÖNIGSBERG, 7.0—News. 7.10—See Stuttgart. 7.40—See Hamburg.

LAHTI, 7.0—Orchestra and Songs (contd. from 6.25). 7.45—News.

LEIPZIG, 7.0—See Stuttgart. 7.40—"I Pagliacci"—Opera in Two Acts (Leoncavallo), by the Cast of the Scala, Milan (on Records).

MONTE CENERI, 7.0—Sixteenth and Seventeenth Century Music from the Church of All Angels. Favini (Organ). Piece (A. de Cabezon). Toccata (Merulo). Pavane (Byrd). Canzone (Guammi). Fantasia (Gabrieli). Postludium (Titelouz). Voluntary (Gibbons). 7.30—Station Orchestra. Conductor: Leopoldo Casella. Marta Amstad (Songs). Overture, "Egmont" (Beethoven). Pastoral, "La Natività di Gesù" (Scarlati). Suite, Sicilia canora (Mule). Old Christmas Songs. (a) Piedmontese Lullaby (Sinigaglia), (b) Natale del Povero. Aria, "The Messiah" (Handel). Prelude, "Tristan and Isolde" (Wagner).

MORAVSKA-OSTRAVA, 7.0—Variety (contd. from 6.30).

MOSCOW (No. 1), 7.0—Concert.

MUNICH, 7.0—See Stuttgart. 7.40—Act II, "Tristan and Isolde"—Opera (Wagner). Station Orchestra. Conductor: Winter.



A Children's Party in the Berlin Studio

—Talk: Soil. 5.45—Announcements.

KÖNIGSBERG, 5.0—To be announced. 5.15—Markets. 5.50—Myths and Legends.

LAHTI, 5.0—Weather. 5.10—News in Swedish. 5.15—Talk. 5.40—Tuulikki Tenko (Songs).

LEIPZIG, 5.0—Talk: Georg Christoph Lichtenberg. 5.25—Light Music. Station Orchestra. Conductor: Luh. Overture, "Isabella" (Suppé). Styrian Dances (Kienzl). Hochzeitsmusik (Kretschmar). Mon reve (Waldteufel). Selection, "The Bird Fancier" (Zeller). Isola Bella (Lincke). Intermezzo, Melitta (von Blon). Two Viennese Dances (Friedmann-Gärtner). Am Wörther See (Koschat). Weidmannsheil (Reckling).

MORAVSKA-OSTRAVA, 5.0—German Transmission (contd. from 4.55). 5.30—Local News. 5.35—Talk. 5.45—Talk: Slovak Youth.

MOSCOW (No. 1), 5.0—Literary and Musical Programme (contd. from 4.30). 5.30—"The Steppes"—Poetry Sequence.

MUNICH, 5.0—Beethoven Recital (contd. from 4.50). 5.30—Talk by Nowak: The German East African Expedition, 1934. 5.50—Announcements.

OSLO, 5.0—Educational Talk. 5.25—Kolbotn Choir. Conductor: Staver.

PARIS (PTT), 5.0—Records. 5.30—Esperanto.

PARIS (Radio-Paris), 5.0—"Tartuffe"—Play (Molière). 6.45—Talk on Art.

PRAGUE, 5.0—German Transmission (contd. from 4.55).

RADIO-NORMANDIE, 5.0—Dance Music. 5.15—Variety. 5.45—Mandoline.

ROME, 5.0—Market Report.

SOTTENS, 5.0—For Women. 5.30—Bridge Lesson. 5.45—Talk: Rack Railways.

man Songs. 6.45—A Village Band and Grilli Wenger (Yodeller).

BORDEAUX-LAFAYETTE, 6.30—News.

BRATISLAVA, 6.30—Medical Talk. 6.45—Programme of Croatian Christmas Folklore.

BRESLAU, 6.0—See Stuttgart.

BRUSSELS (No. 1), 6.0—Cookery Hints. 6.15—Orchestra. Conductor: Douliez. Patrouille fantôme (Ackermans). Valse en sourdine No. 1 (Ackermans). Jovialités (Gabriel-Marie). The Skaters' Waltz (Waldteufel). Volupté (Guillaume). The Nigger's Dream (Myddleton). Selection, "Rose Marie" (Friml). Slav Rhapsody No. II (Friedmann). Selection, "Cendrillon" (Massenet).

BRUSSELS (No. 2), 6.0—For Children. 6.30—Extract, "Cavalleria rusticana" (Mascagni) on Records.

BUCHAREST, 6.0—Talk. 6.15—Talk: Christmas. 6.30—Opera Relay. In the Intervals: News.

BUDAPEST, 6.5—Review of Foreign Politics. 6.30—To be announced. 6.55—Songs by Sänder Sved.

COLOGNE, 6.0—See Stuttgart. 6.50—Snapshots.

DEUTSCHLANDSENDER, 6.0—See Stuttgart.

FRANKFURT, 6.0—Light Music (contd. from 5.50). 6.45—Topical Talk.

HAMBURG, 6.0—Scenes, "Kätchen von Heilbronn"—Play (contd. from 5.55). 6.35—"Dat Gnadnbrod"—North German Dialect Play in One Act (Johannsen).

HILVERSUM, 6.0—A.V.R.O. Orchestra (contd. from 5.10). 6.10—Sports Talk. 6.40—Caroline Lankhout (Pianoforte). Sonata in D (Durante). Sonata in G minor (Durante). Toccata (Paradis). Introduction, Theme and Variations (Chevillard). Etude and

PARIS (PTT), 6.0—Talk: Old Paris—the Place Vendôme. 6.30—News.

PARIS (Radio-Paris), 6.0—"Tartuffe"—Play (Molière) (contd. from 5.0).

PRAGUE, 6.0—News. 6.10—Record. 6.15—Russian. 6.30—See Moravská-Ostrava.

RADIO-NORMANDIE, 6.0—Symphony Concert. 6.30—Talk 6.50—News.

ROME, 6.0—Tourist Talk: Dopplavoro Notes. 6.15—News in Foreign Languages.

SOTTENS, 6.0—Cello Recital. 6.15—Talk on Music. 6.40—Tourist Report. 6.50—Records.

STOCKHOLM, 6.0—Christmas Variety. 6.15—News. 6.30—Religious Address.

STRASBOURG, 6.0—Travel Talk: Cordova and Seville. 6.15—Talk: The Pasteur Memorial in Strasbourg. 6.30—Orchestra. Conductor: de Villers. Overture chevaleresque (Mouchet). Petite suite for Flute, Clarinet and Strings (Claussmann). Scene (Tomasi). Selection, "Hélène" (Messenger). Persian Dance (Guiraud). Marche tartare (Ganné).

STUTTGART, 6.0—Light Music. Wind Band. Conductor: Schilling. Schwäbischer Reitermarsch (Lotterer). Overture, "The Nuremberg Doll" (Adam). Schneeflocken Intermezzo (Thiele). Waltz, Gold and Silver (Lehár). Overture, "Light Cavalry" (Suppé). Intermezzo, Farbenspiele (Siede). Waltz, Winterstürme (Fückl). Alpen-sänger-Marsch (Neithardt). Carinthian Marching Song (Seifert).

TOULOUSE (Radio-Toulouse), 6.0—News. 6.15—Cigány Band. 6.30—For Children.

TURIN, 6.5—News in Foreign Languages.

VIENNA, 6.0—Theatre Review. 6.5—News. 6.25—"Das Veilchen"



7 p.m. (contd.)

OSLO, 7.0—Talk: Photography. 7.30—Christmas Concert from Bergen.
PARIS (Poste Parisien), 7.4—Record. 7.7—Sports Notes. 7.10—News. 7.25—Amusement Guide. 7.28—Concert.
PARIS (PTT), 7.45—Talk on Social Hygiene. 7.53—Colonial Review.
PARIS (Radio-Paris), 7.0—Programme for Farmers; Weather; Talk; Market Prices; Racing Results. 7.20—Review of the German Press. 7.30—Topical Talk.
PRAGUE, 7.0—See 6.30 Moravská-Ostrava. 7.15—Talk. 7.30—Nineteenth Century Songs by Pavel Ludjkar (Bass). 7.50—Literary Programme.
RADIO-NORMANDIE, 7.0—Request Programme.
ROME, 7.0—News; Sports Notes. 7.10—Records. 7.30—Talk. 7.45—Symphony Concert. Conductor: Pedrotti. Virgilio Ranzato (Violin). Violin Solo: Ciaccona (Vitali). Symphony No. 1 in C (Beethoven). Violin Concerto in A minor (Viotti). Two Extracts, "Khovanstchina" (Mussorgsky). Overture, "William Tell" (Rossini).
SOTTENS, 7.0—Literary Talk: Post-war Literature. 7.20—Variety. The Sasselii Orchestra and Soloists.
STOCKHOLM, 7.0—"Carmen"—Opera in Four Acts (Bizet), from the Opera House. Conductor: Sandberg.
STRASBOURG, 7.0—Orchestra (contd. from 6.30). 7.30—Time; News; Announcements; Lottery Results. 7.45—Records.
STUTT GART, 7.0—News. 7.10—Local Review. 7.40—See Breslau.
TOULOUSE (Radio-Toulouse), 7.0—For Children. 7.10—Operetta Music. 7.30—News. 7.45—Sound Film Music.
TURIN, 7.0—News; Weather; Records. 7.30—Time; Announcements; Talk. 7.45—"Madonna Oretta" (Forzano) Comedy in Three Acts.
VIENNA, 7.0—"Das Veilchen" (Bittner) (contd. from 6.25). In the Intervals: Topical Talk; News.
WARSAW, 7.0—Warsaw-Poznan Inter-Relay. Warsaw Station Orchestra, conducted by Nawrot; Rackowski (Songs), from Poznan. Blumenfestouverture (Fetras). Songs from: (a) "Der lachende Ehemann" (Eysler), (b) "Der Orlov" (Granchistaedten), (c) "Die Juxheirat" (Lehar). Waltz, "The Dollar Princess" (Fall). Songs from: (a) "Frasquita" (Lehar), (b) "Paganini" (Lehar). Berceuse (Svendsen). Barataria March (Komzak). 7.45—News. 7.55—Talk: Work in Poland.

8 p.m.

ALGIERS, 8.0—Opera Arias. 8.30—News. 8.35—Reading.
ATHLONE, 8.0—Bridie Moloney (Mezzo-Soprano). 8.15—Una Kelly (Violin). 8.30—Mat Dunleavy (Baritone). 8.45—Station Orchestra.
BELGRADE, 8.0—Borodin Concert by the Station Orchestra. Mme. Liza Popova (Songs).
BERLIN, 8.0—"The Year's Best Melodies" (contd. from 7.45).
BEROMUNSTER, 8.0—News. 8.10—"Frauen, ihr nacht uns das Leben so schön"—Radio Potpourri (Riedinger). The Bern Municipal Orchestra. Conductor: Lertz.
BORDEAUX-LAFAYETTE, 8.0—See Paris (PTT). 8.10—Talk: Wine. 8.15—News. 8.30—"Papa"—Comedy (Caillave).
BRATISLAVA, 8.10—Station Orchestra. Conductor: Schimpl. Ibl (Violin). Symphony in E flat (Myslivecek). Violin Concerto in D (Tchaikovsky).
BRESLAU, 8.0—Dance Music (contd. from 7.40).
BRNO, 8.10—Station Orchestra. Conductor: Janota. Polasek (Violin). Overture (Bizet). Spanish Symphony (Lalo). Scherzo capriccioso. (Dvořak).
BRUSSELS (No. 1), 8.0—Radio Orchestra. Conductor: André. Mission (Violin). Overture, "La chasse du jeune Henri" (Méhul). Violin Solo: Scherzo-Tarantella (Wieniawski). Rhapsody (Hartung). Selection, "Pepita Jimenez" (Albeniz). 8.30—"Le Grillon"—Montmartre Cabaret.
BRUSSELS (No. 2), 8.0—Orchestra. Conductor: Douliez. Runge (Songs). Ballet, "Lakmé" (Delibes). Arias, "I Pagliacci" (Leon-

cavallo), "L'Africaine" (Meyerbeer). Bohemian Dance, "The Fair Maid of Perth" (Bizet). Arias, "Carmen" (Bizet), "Aida" (Verdi). Minuet and Gavotte, "Manon" (Massenet). Arias, "Manon Lescaut" (Puccini). "Cavalleria rusticana" (Mascagni). 8.45—To be announced.
BUCHAREST, 8.0—Opera Relay (contd. from 6.30).
BUDAPEST, 8.0—Variety. 8.40—News.
COLOGNE, 8.0—Chamber Music (contd. from 7.40). 8.15—Songs from Die Winterreise—Song Cycle (Schubert). Eugen Engels (Tenor), Egbert Grape (Pianoforte).
DEUTSCHLANDSENDER, 8.0—Variety (contd. from 7.40).
FRANKFURT, 8.0—Modern German Music (contd. from 7.40). 8.40—Two Melodramas (Liszt): (a) Der traurige Monch, (b) Der blinde Sänger. Berthold Ebbecke (Speaker) and Dr. Schnapp (Pianoforte).
HAMBURG, 8.0—Dance Music (contd. from 7.40).
HILVERSUM, 8.0—Variety Concert (contd. from 7.45).
HUIZEN, 8.0—Choir (contd. from 7.45). 8.40—For Parents.
JUAN-LES-PINS (Radio Côte d'Azur), 8.0—News; 8.10 (approx.)—Concert. 8.30—Dramatic Programme.
KALUNDBORG, 8.0—Talk (contd. from 7.50). 8.20—Mortensen (Saxophone). Valse bluette (Drigo). Saxophobia (Wiedoeff). Recitative and Aria (Gumbert). 8.35—A Visit to a Children's Home.
KÖNIGSBERG, 8.0—See 7.40 Hamburg.
LAHTI, 8.0—News in Swedish.
LEIPZIG, 8.0—"I Pagliacci" Opera (Leoncavallo) (contd. from 7.40).
LYONS (La Doua), 8.0—Wireless Notes. 8.10—Talk: Mountaineering. 8.20—Film Review. 8.30—Orchestra. Conductor: Witkowski. Leila Gousseau (Pianoforte). Overture, "Manfred" (Schumann). Concerto in E flat (Beethoven). Selection, "Sakko" (Rimsky-Korsakov). Symphonic Variations (Franck). Selection, "Namouna" (Lalo).
MADRID (EAJ7), 8.15—News.
MONTE CENERI, 8.0—Orchestra (contd. from 7.30). 8.30—American Songs. Sergio Sax (Songs and Pianoforte).
MOSCOW (No. 1), 8.0—German Talk: The Russian Revolutionary Movement. 8.55—Chimes.
MUNICH, 8.0—Act II, "Tristan and Isolde" (Wagner) (contd. from 7.40).
OSLO, 8.0—Concert (contd. from 7.30). 8.40—Weather. 8.45—News.
PARIS (Poste Parisien), 8.0—Talk. 8.20—Weekly Review. 8.25—Records. 8.45—Gala Concert.
PARIS (PTT), 8.0—Talk: In Defence of the Theatre: 8.10—Denise Lemaesquier (Pianoforte). 8.30—"Professor Klenov"—Play in Three Acts (Bramsen).
PARIS (Radio-Paris), 8.0—Reading (Renard). 8.30—News. 8.45—Symphony Concert by the National Orchestra and the Félix Raugel Choir. Conductor: Inghelbrecht. Soloists: Mme. Malnoury-Marseillac, Germaine Martinelli, Turba-Rabier, Branèze, Ben Sedira, Cathelat, Etchevery and Doyen (Pianoforte). Extracts from "The Christmas Oratorio" (Bach). Pianoforte and Orchestra: Basque Rhapsody (Bordes).
PRAGUE, 8.0—Literary Programme. 8.10—See Brno.
RADIO-NORMANDIE, 8.0—Dance Music. 8.30—Choral Records.
REYKJAVIK, 8.0—Records. 8.10—Weather. 8.50—Announcements.
ROME, 8.0—Symphony Concert (contd. from 7.45). In the Interval: Talk: Literature and Art.
SOTTENS, 8.0—Variety (contd. from 7.20). 8.10—News. 8.20—Cabaret.
STOCKHOLM, 8.0—"Carmen" (Bizet) (contd. from 7.0). In the Interval at 8.35: News.
STRASBOURG, 8.0—News and Announcements in German; Records.
STUTT GART, 8.0—See 7.40 Breslau. 8.30—"Behind the Golden Clouds"—Georg-Schmückle Programme.
TOULOUSE (Radio-Toulouse), 8.0—Sound Film Music. 8.15—Accordion. 8.30—Chansonnettes.
TURIN, 8.0—Comedy (Forzano) (contd. from 7.45).
VIENNA, 8.0—"Das Veilchen" (Bittner) (contd. from 6.25).
WARSAW, 8.0—Warsaw-Lwów Inter-Relay. Warsaw Station Orchestra. Conductor: Ozinimski; Danczowski (Cello) from Lwów. Overture, "Otto the Archer" (Minheimer).

9 p.m.

ALGIERS, 9.5—Records. 9.20—News. 9.25—Oriental Music.
ATHLONE, 9.0—Station Orchestra. 9.15—Billy Baker (Flute). 9.30—Irish Songs by M. Ni Cheallagh. 9.45—Martin (Pipes).
BARCELONA, 9.0—Chimes; Social Notes; Exchange. 9.10—Humorous Weekly Review in Verse. 9.20—Station Orchestra. 9.30—Sabaté (Songs).
BELGRADE, 9.0—Press Review. 9.15—Borodin Concert (contd. from 8.0).
BERLIN, 9.0—News. 9.20—Report of the Ice Hockey Match, Berlin Sports Club v. Winnipeg Monarchs. 9.40 (approx.)—"The Year's Best Melodies" (contd. from 7.45).
BEROMUNSTER, 9.0-9.45—Radio Potpourri (contd. from 8.10).
BORDEAUX-LAFAYETTE, 9.0—"Papa"—Comedy (contd. from 8.30).
BRATISLAVA, 9.15—News in Hungarian.
BRESLAU, 9.0—Time; News; Sports Notes. 9.30—Station Dance Band. Conductor: Ignier.
BRUSSELS (No. 1), 9.0—Talk: 9.15—Orchestra. Conductor: Douliez. Overture, "The Daughter of the Regiment" (Donizetti). Chantier Potpourri (Salabert). Paysages wallons (De Tacey). Romanian Folk Songs (Dauber). Pastorale variée (Pierné).
BRUSSELS (No. 2), 9.0—To be announced. 9.10—Radio Orchestra. Conductor: André. Angent (Songs). Overture, "The Barber of Seville" (Rossini). Arias, "Il Trovatore" (Verdi), "Faust" (Gounod). Italian Folk Songs. (de Micheli). Arias, "Tannhäuser" (Wagner), "Carmen" (Bizet). Boite à jousjou (Debussy). Suite, "L'Arle sienne" (Bizet).
BUDAPEST, 9.0—Béza Wehner (Organ), from the Conservatoire. Fantasia (Reger). Pastorale (Franck). Légende (Liszt). Christmas Song (Antalfy-Zsoros). Allegro con fuoco (de Beock).
COLOGNE, 9.0—Time; News. 9.20—Talk on Records: America. 9.30—Weekly Review. 9.40—Station Chamber Orchestra.
DEUTSCHLANDSENDER, 9.0—News. 9.30—Report on the International Ice Hockey Match, Berlin Sports Club v. Winnipeg-Monarchs, from the Sportpalast. 9.45—Weather.
FRANKFURT, 9.0—Time; News. 9.15—Announcements; Weather; Sports Notes. 9.20—Talk on Records: America. 9.30—Eduard Bornschone Songs. Hans Karolus (Baritone)—the Composer at the Pianoforte. Abendrot. Schlafen, schlafen. Der Tod krönt die Unschuld. Liebesbrief. Schmied Schmerz. In der Fremde. Der verliebte Ostwind. Ungerührt und stolz. Wünsche. Weisheit des Hafis. Hafis verlegt das Paradies.
HAMBURG, 9.0—News. 9.20—Talk on Records: America.
HILVERSUM, 9.0—Variety Concert (contd. from 7.45). 9.10—A Play. 9.40—A.V.R.O. Orchestra. Conductor: Trep. Overture, "Banditenstreiche" (Suppé). Je t'aime (Waldteufel). Pieces, The Three Bears Suite (Coates). Offenbach Potpourri (Conradi).
HUIZEN, 9.0—For Parents. 9.10—Marc Bouwmeester (Organ). Courante (Handel). Prelude (Hesse). Andantino (Hesse). Pastorale (Duncan). Andante (Brosig). Sacred Songs and Improvisation. 9.40—News. 9.45—Requiem (Verdi), on Records.
JUAN-LES-PINS (Radio Côte d'Azur), 9.0—Dramatic Programme.
KALUNDBORG, 9.0—News. 9.15—Schumann Concert. Radio Orchestra. Conductor: Gröndahl. Sandby (Cello). 'Cello Concerto in A minor. Overture. Scherzo. Finale.
KÖNIGSBERG, 9.0—News. 9.20—Talk on Records: What People are saying in America. 9.30—Dialogues from Plato's "Republic."
LEIPZIG, 9.0—News.
LYONS (La Doua), 9.0—Orchestra (contd. from 8.30).

MADRID (EAJ7), 9.0—Relay of an Opera from the Gran Teatro del Liceo.
MOSCOW (No. 1), 9.0—Chimes. 9.5—French Talk: The Russian Revolutionary Movement.
MUNICH, 9.0—News. 9.20—Local Review. 9.30—"The German throughout the Ages"—Literary and Musical Sequence.
OSLO, 9.0—Topical Talk. 9.15—Recitations. 9.35—Variety from Stavanger.
PARIS (Poste Parisien), 9.0—Concert (contd. from 8.45).
PARIS (PTT), 9.0—"Professor Klenov"—Play (Bramsen) (contd. from 8.30).
PARIS (Radio-Paris), 9.0—Symphony Concert (contd. from 8.45). In the Interval at 9.15: News; Fashion Review.
PRAGUE, 9.0—News. 9.15—Records. 9.30—Pospisil (Songs).
RADIO-NORMANDIE, 9.0—"La Chauve-souris"—Musical Comedy (Maupas).
REYKJAVIK, 9.0—News. 9.30—Reading.
ROME, 9.0—Symphony Concert (contd. from 7.45).
SOTTENS, 9.0-9.15—Cabaret (contd. from 8.20).
STOCKHOLM, 9.0—"Carmen" (Bizet) (contd. from 7.0).
STRASBOURG, 9.0—Louise Debonte and Wimmer (Songs), and Neuberth (Viola d'Amore), Viola d'Amore: Sonata (Bragaglia). Aria, "The Messiah" (Handel). Aria from The Christmas Oratorio (Bach). Viola d'Amore: Andante (Porpora). Songs: (a) Légende de la sauge (Massenet), (b) Non credo (Widor). Viola d'Amore: (a) Minuet (Lully), (b) Andantino (Pugnani). Five Carols (Cornelius). Vocal Duet: Joseph, lieber Joseph mein (von Herzogenberg). Viola d'Amore: Sonata in F (dall'Abaco).
STUTT GART, 9.0—Time; News. 9.20—Talk on Records: America. 9.30—See Breslau.
TOULOUSE (Radio-Toulouse), 9.0—"L'heure espagnole"—Opera. One Act (Ravel).
TURIN, 9.0—Comedy (Forzano) (contd. from 7.45); Dance Music.
VIENNA, 9.0—"Das Veilchen" (Bittner) (contd. from 6.25). 9.15—Review of Books about Dr. Dollfus. 9.35—News; Snow Report; Traffic Notes.
WARSAW, 9.0—Light Music. 9.15—Dancing Lesson. 9.35—Dance Music. 9.45—Talk in Italian: Poland's Cultural Influence on Eastern Europe.

10 p.m.

ALGIERS, 10.0—Oriental Music. 10.10—News.
ATHLONE, 10.0—Variety. 10.30—Time; News; Weather. 10.40—Variety by Joan and Barry.
BARCELONA, 10.0—News. 10.5—Pagés (Pianoforte). 10.30—Maria Ferris (Soprano).
BERLIN, 10.0—"The Year's Best Melodies" (contd. from 7.45).
BORDEAUX-LAFAYETTE, 10.0—"Papa"—Comedy (contd. from 8.30). 10.30—See Paris (PTT).
BRESLAU, 10.0—Station Dance Band.
BRUSSELS (No. 1), 10.0—News. 10.10—Request Records.
BRUSSELS (No. 2), 10.0—News. 10.10—Request Records.
COLOGNE, 10.0—Orchestra (contd. from 9.40).
BUDAPEST, 10.0—The Racz Cigány Band. 10.15—Records.
DEUTSCHLANDSENDER, 10.0—Records: The B.B.C. Orchestra. Conductor: Sir Henry Wood. Pablo Casals (Cello). 'Cello Concerto in D (Haydn). Symphonic Poem, Don Quixote (Strauss).
FRANKFURT, 10.0—"This Big Little World"—The Travels of Marco Polo contrasted with the England to Australia Record Flight.
HAMBURG, 10.0—Songs by Hamburg Composers. Recital by Eva Schlee, Hélène Gyhl and Jakschtat. The Composers (Pianoforte). Ammermann: Schlaf, Regentag. Clausius: Mittags, Abends. Grimpe: Nächte, Liebeslied. Helmrich: Weisses Wolken, Liebeslied, 10.30—Dorothea Sellschopp (Violin) and Grego (Pianoforte). Sonata in B minor (Dall'Abaco). Sonata in G (Dvořak).
HILVERSUM, 10.0—A.V.R.O. Orchestra (contd. from 9.40). 10.40—News. 10.50—Dance Music.
HUIZEN, 10.0—Requiem (Verdi) (contd. from 9.45).
KALUNDBORG, 10.0—Donde Dance Band.
KÖNIGSBERG, 10.0—Small Station Orchestra. Conductor: Wilcken. Overture, "Tantalusquelen"

THURSDAY Dec. 27

(Suppé). Serenade (Oehlschlegel). La toupie (Gillet). Transaktionenzwiler (Strauss). Selection, "The Geisha" (Jones). Suite Giordiana (Amadei). Entry March of the Gladiators (Fucik).
LYONS (La Doua), 10.0—Orchestra (contd. from 8.30). 10.30—Orchestra.
MADRID (EAJ7), 10.0—Chimes. 10.5—News. 10.15 (approx.)—Opera Relay (contd. from 9.0).
MOSCOW (No. 1), 10.5—Spanish Talk: Soviet School Teaching Methods.
MUNICH, 10.0—"The German throughout the Ages"—Sequence (contd. from 9.30). 10.30—See 10.0 Breslau.
OSLO, 10.0—Variety (contd. from 9.35).
PARIS (Poste Parisien), 10.0—Concert (contd. from 8.45). 10.30—Records.
PARIS (PTT), 10.0—"Professor Klenov"—Play (Bramsen) (contd. from 8.30). 10.15 (approx.)—News. 10.30—Dance Music.
PARIS (Radio-Paris), 10.0—Symphony Concert (contd. from 8.45). 10.30—"Les enfants de Bethléem"—Mystery (Pierné).
REYKJAVIK, 10.0—Station Orchestra; Song Records; Dance Music.
ROME, 10.0—News.
STOCKHOLM, 10.0-10.10—"Carmen" (Bizet) (contd. from 7.0).
STRASBOURG, 10.20—Press Review 10.30—See Paris (Radio-Paris).
STUTT GART, 10.0—See Breslau.
TOULOUSE (Radio-Toulouse), 10.0—Operetta Songs. 10.15—News. 10.30—"Crépuscule"—Fantasy.
TURIN, 10.0—News. 10.10—News in Spanish.
VIENNA, 10.10—Talk in Hungarian. 10.20—Records. 10.50—Dance Music and Songs.
WARSAW, 10.0—Weather. 10.5—Dance Music.

11 p.m.

BARCELONA, 11.0—Renau (Pianoforte). Prelude and Fugue (Bach). Prelude (Chopin). Evocación (Albeniz). El Pierto (Albeniz). 11.30—Records.
BERLIN, 11.0—"The Year's Best Melodies" (contd. from 7.45).
DEUTSCHLANDSENDER, 11.0—Records (contd. from 10.0).
FRANKFURT, 11.0—See Stuttgart.
HAMBURG, 11.0—Military Band and Choir. Conductor: Voigt. Mit Voldampf voraus. Selection, "Oberon" (Weber). Vom Barcete schwankt die Feder (Thum). Ballet, "Austin" (Marschner). Horch, was kommt von draussen lein. Waltz, Am Königssee. Madel im Tourneur (Breuer). Brautwerber-Marsch (Becker).
HILVERSUM, 11.0—Dance Music.
HUIZEN, 11.0—Requiem (Verdi) (contd. from 9.45).
KALUNDBORG, 11.2-11.30—Donde Dance Band.
MADRID (EAJ7), 11.0—Opera Relay: (contd. from 10.15). 11.45—News.
PARIS (PTT), 11.0—Dance Music.
PARIS (Radio-Paris), 11.0—"Les enfants de Bethléem" (Pierné) (contd. from 10.30).
RADIO-NORMANDIE, 11.0—Records. 11.30—Variety.
REYKJAVIK, 11.0—Dance Music.
STRASBOURG, 11.0—See 10.30 Paris (Radio-Paris).
STUTT GART, 11.0—Symphony Orchestra. Conductor: Adam.
TOULOUSE (Radio-Toulouse), 11.0—"Crépuscule"—Fantasy (contd. from 10.30). 11.15—Soloists. 11.30—Songs. 11.50—Military Music.
VIENNA, 11.0—Dance Music with Songs.

12 midnight

BARCELONA, 12.0—News.
BERLIN, 12.0—"The Year's Best Melodies" (contd. from 7.45).
FRANKFURT, 12.0—See Stuttgart.
RADIO-NORMANDIE, 12.0—Dance Music.
STUTT GART, 12.0—Serenade.
TOULOUSE (Radio-Toulouse), 12.0—News. 12.5—"Au caveau de minuit"—Fantasy. 12.15-12.30—Viennese Orchestra.

1 a.m. (Friday)

RADIO-NORMANDIE, 1.0—News. 1.10—Dance Music.

# FRIDAY December 28

## PRINCIPAL EVENTS

### SYMPHONY CONCERTS

P.M.  
 6.0 Hamburg: Magdeburg Concert.  
 7.15 Warsaw: The Philharmonic.  
 8.0 Königsberg: Bruckner's third symphony.  
 8.0 Turin, etc.: Second Symphony (Brahms), etc.  
 11.0 Frankfurt, Stuttgart: Symphony Orchestra.

### LIGHT CONCERTS

12.15 Paris (PTT): The National Orchestra.  
 2.10 Hilversum: Popular orchestral.  
 2.45 Warsaw: Spanish music.  
 3.0 Königsberg: Schubert, Weber, etc.  
 5.50 Leipzig: Folk music.  
 6.30 Strasbourg: Station orchestra.  
 7.0 Sottens: Motets and madrigals.  
 7.10 Kalundborg: Light French music.  
 7.15 Leipzig and German stations: The Masters in merry mood.  
 8.0 Brussels No. 1: Ex-Service Men's concert.  
 8.0 Brussels No. 2: Flemish music. 9.0, Schubert.  
 8.0 Hamburg: Light orchestral.  
 8.0 Vienna: Symphony Orchestra, baritone arias.  
 8.10 Huizen: Dutch music.  
 8.25 Sottens: Popular programme.  
 9.20 Leipzig: Orchestra.  
 9.35 Kalundborg: Danish music.  
 10.0 Strasbourg: Light orchestra.  
 10.5 Vienna: An hour of Old Vienna.  
 12 midnight: Frankfurt, Stuttgart: "The World in Song and Dance" (records).

### OPERAS

P.M.  
 5.15 Brussels No. 1: "Carmen" excerpts.

6.30 Budapest: "Arabella" (Strauss).  
 8.0 Breslau: "La Serva padrona" (Pergolesi).

### CHAMBER MUSIC

P.M.  
 5.15 Warsaw: Quartet (Rózycki).  
 6.30 Brussels No. 1: Pianoforte and 'cello.  
 8.25 Prague: Quartet, E flat (Dvořák).  
 8.30 Paris (PTT): Roussel, d'Indy, etc.  
 9.35 Breslau: Beethoven Sonatas.

### RECITALS

P.M.  
 4.0 Cologne: Loewe Ballads.  
 4.15 Warsaw: Vocal duets, pianoforte.  
 6.0 Stockholm: English, French carols.  
 6.10 Königsberg: Pianoforte (Beethoven).  
 7.50 Kalundborg: Students' songs.  
 8.10 Beromünster: Violin, 'cello, pft.  
 9.0 Strasbourg: Italian music.  
 10.25 Brussels No. 1: Accordion.

### PLAYS

P.M.  
 7.0 Stockholm: "Days without End" (O'Neill).  
 7.0 Monte Ceneri: "Erma Bifronte" (Móruccio).  
 7.10 Brno, Prague: "Gulliver's Travels."  
 8.0 Leipzig: "Das Meretlein."  
 8.0 Munich: "Die Kickers" (Buch).  
 8.15 Poste Parisien: "Pêcheurs d'Ombres."  
 10.0 Paris (PTT): "La verre de vin blanc."

### TALK

6.45 Brussels No. 2: A Flemish Youth Hostel.  
 P.M.  
 7.10 (till 12.0) Oslo: Christmas festival with dance music; 9.30, Munich; 10.0, Kalundborg, Cologne; 10.5, Warsaw; 10.25, Brussels No. 2; 10.30, Radio-Paris; 11.0, Paris (PTT).

## NATIONAL

For Time Signals, see Monday  
 10.15 a.m. (Droitwich)—Service.  
 10.30 (Droitwich)—Weather Forecast.  
 10.45—Cinema Organ. Overture, William Tell (Rossini). Intermezzo, The Opera Ball (Heuberger). Yes, sir, I love your daughter (Conrad). Sanctuary (Hewitt). Moonbeams' Dance (Gibbons). Portrait of a Toy Soldier (Ewing). Slow Waltz (Delibes). Selection, Yes, Madam? (Waller and Tunbridge).  
 11.30—New Victoria Cinema Orchestra. Carnival Overture (Suppé). Dance of the Flowers (Naila) (Delibes). The Porcelain Doll (Lincke). Fantasy, The Mask of Beethoven (arr. Salabert). Love divided by two (Robin and Rainger). Pot-pourri, Dixieland (arr. Stoddon). Serenade, Harlequin's Millions (Drigo). Fantasy, The Rose (arr. Myddleton).  
 12.30 p.m.—B.B.C. Dance Orchestra.  
 1.15—Records.  
 2.15—Birmingham Hippodrome Orchestra.  
 3.15—To Unemployed Clubs: "This and That," John Hilton.  
 3.35—B.B.C. Northern Orchestra.  
 4.15—Hotel Metropole Orchestra.  
 5.15—Medvedeff's Balalaika Orchestra. Olga Alexceva (Soprano). A Christmas Programme of Russian Music.  
 6.0—"The First News."  
 6.25—Bulletin of Special Notices.  
 6.30—Music Talk. Professor D. F. Tovey, Mus.Doc.  
 7.15—"In your Garden." C. H. Middleton.  
 7.35—"The Kentucky Minstrels" hold a party. Devised and produced by Harry S. Pepper.  
 8.35—B.B.C. Orchestra (Section C), conducted by R. Vaughan Williams. Megan Thomas (Soprano). Roy Henderson (Baritone). Wireless Chorus (Section C). Comedy Overture (Elizabeth Maconchy). Two Psalms for Soprano and Chamber Orchestra (Grace Williams). Concertino (R. O. Morris). Two Pieces (Robin Milford). Mystical Songs (Vaughan Williams).  
 9.30—"The Second News."  
 10.0—"The Cart of Death," adapted and translated by Marianne Helweg from the story by Selma Lagerlof. Produced by M. H. Allen.  
 10.45-12.0 (Droitwich)—Dance Music. Harry Roy and his Band.

## REGIONAL

For Time Signals, see Monday  
 10.15-10.45 a.m. (except Midland)—Droitwich.  
 10.45—The Western Studio Orchestra.  
 11.45—Organ Recital.  
 12.15 p.m.—Records.  
 1.0—Coventry Hippodrome Orchestra. The Wedding of the Toy Drum Major (Carlton). Medley, A to Z (Geiger). Just a-wearyin' for you (Jacobs-Bond). Samum (Robrecht). Dear heart of mine (Burrows). Valse Brillante (Anderson). Lady Rainbow (Ewing). Fantasy, The Voice of the Bells (Thurban). Selection, Colledge Rhythm (Gordon and Revel).  
 2.0—Records.  
 2.30—B.B.C. Midland Orchestra.  
 3.30—The Cedric Sharpe Sextet. Thérèse la Cava (Mezzo-Soprano).  
 4.45—Variety Records.  
 5.15—The Children's Hour.  
 6.0—"The First News."  
 6.30 (London)—Wireless Military Band.  
 6.30 (Midland)—Regional Revellers, presented by Mason and Armes.  
 6.30 (North)—Black Dyke Mills Band. Two Jacks and a Jack (Entertainers).  
 6.30 (Scottish)—Gardening Talk.  
 6.30 (West)—David Evans (Baritone). D. Emrys Edwards (Pianoforte).  
 6.35 (Belfast)—Wireless Orchestra.  
 6.45 (Scottish)—"Next Week You'll Hear."  
 6.55 (Scottish)—Records.  
 7.0 (West)—"Dick Whittington and his Cat," relayed from the Prince's Theatre, Bristol.  
 7.0 (Belfast)—For Farmers.  
 7.5 (Scottish)—For Farmers.  
 7.15 (ex. North and West)—The B.B.C. Dance Orchestra.  
 7.30 (North)—Recital of Folk Carols. Ernest J. Potts (Bass).  
 7.50 (West)—Dance Records.  
 8.0—"Oliver Twist." (See National, Thursday, 7.30 p.m.).  
 9.30 (ex. Midland and North)—"The Real Thing"—records.  
 9.30 (Midland)—Henry Grierson: "Playing by Ear."  
 9.30 (North)—Records: Topical Turntable—3.  
 10.0—News Summary.  
 10.10—Dance Records.  
 10.30-12.0 (Midland till 10.45)—Harry Roy and his Band.

Hours of Transmission in Greenwich Mean Time

### 6 a.m.

BERLIN, 6.0—News. 6.15—See Hamburg.  
 BRESLAU, 6.0—News. 6.15—Records.  
 COLOGNE, 6.0—Hymn; News. 6.15—Records.  
 DEUTSCHLANDSENDER, 6.0—News; Records.  
 FRANKFURT, 6.0—Records.  
 HAMBURG, 6.0—News. 6.15—Orchestra.  
 KÖNIGSBERG, 6.0—News. 6.15—See Hamburg.  
 LEIPZIG, 6.0—News. 6.15—See Hamburg.  
 MUNICH, 6.0—See Stuttgart.  
 PARIS (Radio-Paris), 6.45—Gym. PRAGUE, 6.0—Music; News. STUTTGART, 6.0—Records.  
 WARSAW, 6.0—Gym. 6.7—Records. 6.15—News. 6.25—Records. 6.35—For Housewives. 6.40—Announcements. 6.50—Light Music.

### 7 a.m.

BERLIN, 7.0—Gym. 7.20—Records; Announcements.  
 BRESLAU, 7.0—Records. 7.40—Gym.  
 COLOGNE, 7.0—Water Level; Records. 7.30—Time; Weather. 7.35—Gym. 7.50—Talk: A Journey to Danzig.  
 FRANKFURT, 7.0—Records. 7.30—Gym.  
 HAMBURG, 7.0—Weather; For Housewives: 7.10-7.45—Announcements; Records.  
 HILVERSUM, 7.40—Records.  
 HUIZEN, 7.40—Records.  
 KALUNDBORG, 7.30—Service.  
 KÖNIGSBERG, 7.0—Prayers. 7.30—Gym. for Women.  
 MOSCOW (No. 1), 7.15—For Children.  
 MUNICH, 7.0—See Stuttgart. 7.15—Gym.  
 PARIS (Poste Parisien), 7.10—Fanfare; Records. In the Interval: News.  
 PARIS (Radio-Paris), 7.0—Records. 7.15—News. 7.45—Gym.  
 ROME, 7.0-7.15—News; For Housewives.  
 STUTTGART, 7.0—Records. 7.15—

Gym. for Women. 7.30—Weather; Water Level; For Women.  
 TURIN, 7.0-7.15—News; For Housewives.

### 8 a.m.

BERLIN, 8.0—Records. 8.40—For Women.  
 BRESLAU, 8.0—News. 8.15—Records.  
 DEUTSCHLANDSENDER, 8.40—Reading.  
 HILVERSUM, 8.0—Records.  
 HUIZEN, 8.0—Records.  
 MUNICH, 8.20-8.50—Announcements; Records.  
 PARIS (Poste Parisien), 8.5—Concert. 8.20—News. 8.45—Cookery Talk.  
 PARIS (Radio-Paris), 8.0—Records.  
 PRAGUE, 8.50—News.  
 VIENNA, 8.0—News; Markets.

### 9 a.m.

BERLIN, 9.0—News; Market Prices.  
 COLOGNE, 9.0—News. 9.10—Talk: The Life of a Farmer's Wife in South-West Africa. 9.30—Johann August Sixt Recital. Johanna von der Leithen (Soprano); Stauch Trio.  
 DEUTSCHLANDSENDER, 9.0—News. 9.50—Gym for Young Children.  
 FRANKFURT, 9.0—News. 9.45—For Housewives.  
 HAMBURG, 9.50—News.  
 HILVERSUM, 9.0—Records. 9.10—Talk: Dietetics. 9.40—Religious Programme. 9.55—Talk.  
 HUIZEN, 9.40—Records.  
 KÖNIGSBERG, 9.40—News.  
 LEIPZIG, 9.0—Exchange; Announcements; Weather; Water Level.  
 MOSCOW (No. 1), 9.0—News.  
 OSLO, 9.0—Exchange.  
 PRAGUE, 9.5—News in German. 9.10—Records. 9.15—Fleischhaus Chamber Orchestra.  
 STUTTGART, 9.0—News. 9.15—Vocal and Instrumental.

### 10 a.m.

BERLIN, 10.25—Exchange.  
 BRESLAU, 10.30—News.  
 COLOGNE, 10.0—Recital (contd. from 9.30). 10.30—Announcements.  
 DEUTSCHLANDSENDER, 10.0—Gym. for Young People. 10.15—

Weather. 10.40—For Farmers; Weather. 10.50—Greetings.  
 FRANKFURT, 10.0—Announcements; Records. 10.30—Programme Announcements; Exchange; Weather. 10.45—Announcements.  
 HAMBURG, 10.0—Waltz Records. 10.30—Wind Band from the Old Rathaus, Bremen. Conductor: Niemann.  
 HILVERSUM, 10.0—Talk. 10.15—Guaroni Trio. In the Interval at 10.40: Recitations.  
 HUIZEN, 10.0—Records. 10.10—Concert. 10.40—Records.  
 KALUNDBORG, 10.15—For Schools: Christmas in Copenhagen. 10.0—Announcements.  
 KÖNIGSBERG, 10.30—See Hamburg.  
 LEIPZIG, 10.0—Announcements; Records. 10.30—News. 10.45—For Farmers.  
 MUNICH, 10.0—Market Prices. 10.10—For Farmers. 10.20—News. 10.30—Announcements; Records. 10.50—Exchange.  
 OSLO, 10.15—Service. 10.50—Exchange.  
 PRAGUE, 10.0—Record. 10.55—For Farmers.  
 STUTTGART, 10.15—Records. 10.45—Weather; For Farmers.  
 TURIN, 10.30—Natus Orchestra.  
 VIENNA, 10.30—For Women.

### 11 a.m.

BERLIN, 11.0—Wind-Band from Hamburg. In the Interval at 11.30: Weather.  
 BEROMÜNSTER, 11.0—Ballet Records. 11.30—News. 11.40—Records.  
 BRESLAU, 11.0—The Görlitz Orchestra. Conductor: Lenhart.  
 BUDAPEST, 11.5—Jazz on Two Pianofortes. In the Interval at 11.30—News.  
 COLOGNE, 11.0—Overtures and Entr'acte Music. The Small Station Orchestra. Conductor: Eysoldt. Overture, "Cavalleria rusticana" (Mascagni). Overture, "Tiefand" (d'Albert). Entr'acte, "Manon Lescaut" (Puccini). Overture and Entr'acte, "Carmen" (Bizet). Overtures, "Oberon" (Weber). "Der Waffenschmied" (Lortzing). "Donna Juanita" (Suppé). "Nakisiris Hochzeit" (Lincke). "Wiener Frauen" (Lehár). "Carnival in Rome" (Strauss) and "Coeur As" (Kncke).

DEUTSCHLANDSENDER, 11.0—See Cologne.  
 FRANKFURT, 11.0—See Cologne.  
 HAMBURG, 11.0—Cookery Hints; Announcements. 11.15—Wind-Band (contd. from 10.30).  
 HILVERSUM, 11.0—Guaroni Trio. 11.25—Records. 11.41—Kovacs Lajos Orchestra. In the Intervals: Records.  
 HUIZEN, 11.0—Records. 11.10—For Invalids. 11.40—Police Messages. 11.55—Records.  
 KALUNDBORG, 11.2—Andersen String Ensemble.  
 KÖNIGSBERG, 11.0—Announcements. 11.15—See 10.30 Hamburg.  
 LEIPZIG, 11.0—Records.  
 MONTE CENERI, 11.0—Announcements. 11.5—Orchestra. Selection, "Si j'étais roi" (Adam). Selection, "Henry VIII" (Saint-Saëns). Waltz-Caprice (Rubinstein). Suite pastorale (Vreuls). Prelude, Act III, "Hérodiade" (Massenet). Intermezzo, Anita (Siede). In the Interval at 11.29: Time; Weather. 11.55—News.  
 MUNICH, 11.0—Music of Southern Europe (on Records). 11.35—Orchestra. Conductor: Böhm.  
 PRAGUE, 11.0—For Farmers. 11.10—Records. 11.25—News. 11.35—Dance Music.  
 ROME, 11.30—Records.  
 SOTTENS, 11.30—News. 11.40—Small Lausanne Orchestra. Conductor: Desarzens. Overture, "Iphigénie en Aulide" (Gluck). Ballet Music, "Les Fantoccini" (Lecoca). Valse triste (Sibelius). Lazy Bones (Franklin).  
 STUTTGART, 11.0—See Cologne.  
 TURIN, 11.0—Natus Orchestra. 11.30—Records. 11.45—News.  
 VIENNA, 11.0—Vienna Symphony Orchestra. Conductor: Schönherr. Rosner (Violin). March, Unser Wean (Kastner). Dynamidenwalzer (Strauss). Overture, "Wiener Luft" (Recktenwald). Violin Solo: Harlequinade (Rosner). Hungarian Dance (Hoffmann). Selection, "The Bayadere" (Kálmán). Overture, "Fesche Geister" (Ziehrer).  
 WARSAW, 11.0—Fanfare; Weather. 11.5—Press Review. 11.10—Light Music. Front Orchestra. 11.45—For Mothers.

### 12 noon

BERLIN, 12.0—Mid-day Echoes. 12.15—Records: Light Music.

BEROMÜNSTER, 12.0—Records. 12.25—Exchange.  
 BRESLAU, 12.0—Orchestra (contd. from 11.0). In the Interval at 12.15: News.  
 BRUSSELS (No. 1), 12.0—Orchestra. Conductor: Walpot. François Gilman (Piccolo).  
 BRUSSELS (No. 2), 12.0—Record: Groeninghe (Van Hoof). 12.3—Lehár Records. Extracts, "Frasquita," "Giuditta" and "Frederica." 12.25—Request Records.  
 BUDAPEST, 12.0—Jazz on Two Pianofortes. 12.30—Records.  
 COLOGNE, 12.0—News; Greetings. 12.10—Orchestra (contd. from 11.0).  
 DEUTSCHLANDSENDER, 12.0—Records: Light Music; Weather. 12.45—News.  
 FRANKFURT, 12.0—Time; News. 12.15—See Stuttgart.  
 HAMBURG, 12.0—Exchange. 12.20 Musical Interlude.  
 HILVERSUM, 12.0—Orchestra (contd. from 11.41).  
 HUIZEN, 12.0—Records. 12.40—K.R.O. Boys. Conductor: Lustenhouwer.  
 KALUNDBORG, 12.0—Andersen String Ensemble.  
 KÖNIGSBERG, 12.1—Time; Weather; Programme Announcements. 12.5—Records: Songs and Dances.  
 LEIPZIG, 12.0—News. 12.10—Chamber Orchestra, from Halle. Conductor: Zschiesing.  
 MONTE CENERI, 12.5-12.30—Records.  
 MUNICH, 12.0—Orchestra (contd. from 11.35). In the Interval: News.  
 OSLO, 12.0—Records. In the Interval: Weather; For Farmers; Exchange.  
 PARIS (Poste Parisien), 12.0—Exchange. 12.5—Request Programme. 12.25—News. 12.35—Records.  
 PARIS (PTT), 12.0—Tourist Report; Recitation. 12.15—National Orchestra. Conductor: Desormière. Wiener (Pianoforte). Overture, "Turandot" (Weber). Ballet Music (Gluck). English Horn: The Swan of Tuonela (Sibelius). Petite Suite (Roussel). Selection, "Une aventure de la Guimart" (Messenger). Cadences (Wiener). Italian Caprice (Tchaikovsky).  
 PARIS (Radio-Paris), 12.0—Jewish Talk. 12.30—Goidy Dance Band. Interludes by Sorbier.

12 noon (contd.)

PRAGUE, 12.0—Dance Music. 12.35—Labour Exchange. 12.45—Records. 12.55—Exchange.
ROME, 12.0—News. 12.5—Light Music. Forse non verro' (Marf-Mascheroni). NELLE TUE MANI (Biacchi). Selection, "Rhea" (Samara). Bivacco zingaresco (Ferraris). Waltz (Chiappo). Selection, "Bacco in Toscana" (Broggi). Piece (Strauss). Vieni a sciare (Feicetti). In the Interval at 12.35: News; Exchange.
SOTTENS, 12.0—Orchestra (contd. from 11.40). 12.10—Tourist Report. 12.15—Small Radio-Lausanne Orchestra. Overture, "Semiramis" (Rossini). Waltz, Accelerationen (Strauss). Selection, "Fedora" (Giodrano). Si mes vers avaient des ailes (Hahn). Serenade (Gounod). 12.50—Dance Music.
STOCKHOLM, 12.0—See Kalundborg.
STUTTGART, 12.0—Time; News; Weather. 12.15—Classical Music (Records).
TURIN, 12.0—Announcements. 12.5—Orchestra. In the Interval at 12.35—Records; Exchange.
VIENNA, 12.0—News. 12.10—Vienna Symphony Orchestra. Conductor: Schönherr. March, Servus Wien (Eysler). Waltz, Das ist der Walzer der Saison (Eysler). Two Songs, "Rund um die Liebe" (Strauss). Selection, "The Flower of Hawaii" (Abraham). Ländler. Beim Fensterln (Strecker). Song: Blondes Mädchen, blonder Wein (Strecker). Overture, "Tausend Meter Liebe" (Dusik).
WARSAW, 12.0—News. 12.5—Front Orchestra.

1 p.m.

ATHLONE, 1.30—Time; Weather; Exchange; Records.
BERLIN, 1.0—News. 1.15—Classical Records.
BRESLAU, 1.5—Exchange. 1.10—Post Office Propaganda; Records. 1.35—Greetings. 1.40—Markets.
BRUSSELS (No. 1), 1.0—News. 1.10—Records. Allegro moderato from the Quartet No. 4 (Bach). Minuet and Variations (Stamitz). Minuet and Allegretto from the Lark Quartet (Haydn). Songs by Mme. Van den Rijdt. Divertissement No. 14 (Mozart). Minuet (Beethoven). Allegretto (Frank). Allegro vivo for Violin and Piano-forte (Debussy). Trio (Ravel). Two Pieces for String Quartet (Stravinsky).
BRUSSELS (No. 2), 1.0—News. 1.10—Radio Orchestra. Conductor: André. Overture, "Prince Methusalem" (Strauss). Selection, "The Nuremberg Doll" (Adam). Waltz (Waldteufel). Records: Flemish Music. Selection, "Der Zigeuner-primas" (Kálmán). Germanenblut (Blankenburg).
BUDAPEST, 1.0—Records. 1.40—For Housewives.
COLOGNE, 1.0—News. 1.15—Station Schrammel Ensemble. Rudi Rhein (Violin). Josef Jordan (Organ). March (Drescher). Song: Du lieber Wiener Wald (Fiebich). Violin Solo. Violin and Organ. Humoresque (Dvořák). Liebeli (Berger). Da gibst's kan Herrgott mehr (Kutschera).
DEUTSCHLANDSENDER, 1.55—Announcements.
FRANKFURT, 1.0—See Stuttgart. 1.15—Time; News. 1.30—Industrial Report. 1.45—Time; Exchange. 1.55—Weather.
HAMBURG, 1.0—Musical Interlude. 1.15—News. 1.30—Toti del Monte and Tito Schipa Songs on Records.
HILVERSUM, 1.0—Orchestra (contd. from 11.41). 1.40—Reading.
HUIZEN, 1.0—K.R.O. Boys (contd. from 12.40). 1.40—Records.
KÖNIGSBERG, 1.0—News; Records.
LEIPZIG, 1.0—News; Exchange; Weather. 1.15—Orchestra (contd. from 12.10). 1.40—Talk.
MUNICH, 1.0—News. 1.20—Reading. 1.50—For Women.
OSLO, 1.0—Exchange.
PARIS (Radio-Paris), 1.0—Goldy Dance Band (contd. from 12.30). In the Interval: Exchange. 1.15—Exchange. 1.19—Records.
PARIS (PTT), 1.0—News. 1.15—Orchestra (contd. from 12.15).
ROME, 1.0-1.15—Light Music (contd. from 12.5).
STOCKHOLM, 1.0—Reading. 1.30—Anita Harrison and Witkowsky (Pianofortes). Concerto pathétique (Liszt). Two Waltzes (Kirschner). Hardanger (Bax). Waltz in A minor (Schubert).
STRASBOURG, 1.0—Exchange. 1.5 Records.
STUTTGART, 1.0—Classical Music Records. 1.45—Songs. Elisabeth

Jentsch (Soprano), Jautz (Tenor), and Jentsch (Baritone).
TURIN, 1.0—Orchestra. 1.15—Exchange.
VIENNA, 1.0—News.

2 p.m.

ATHLONE, 2.0-2.30—Records.
BERLIN, 2.0—Exchange. 2.25—"Good Luck"—Folk Song Sequence (Fritz Klingner).
BEROMÜNSTER, 2.30—Records.
BRESLAU, 2.0—Markets. 2.10—Review of Periodicals. 2.30—Book Review.
BRNO, 2.55—Station Orchestra. Conductor: Bakala.
COLOGNE, 2.0—Talk: Coal. 2.30—Exchange. 2.45—For Women.
DEUTSCHLANDSENDER, 2.0—Announcements. 2.15—"Rock-a-bye Baby"—Cradle Song Sequence (Hermine Behn). 2.40—Talk: Across Germany in Winter.
FRANKFURT, 2.15—For Women.
HAMBURG, 2.0—Exchange. 2.40—Shipping and Aviation Notes.
HILVERSUM, 2.0—Reading. 2.10—A.V.R.O. Orchestra. Conductor: Treep. March (Alford). Mendelssohn Potpourri (Urbach). Poème (Fiebich). Flirtation (Steck). Over-

3 p.m.

ture, "Münchhausen im Vogelberg" (Kiessig).
MONTE CENERI, 3.0—See Beromünster.
MOSCOW (No. 1), 3.0—News. 3.30—Communist Party Programme.
MUNICH, 3.0—Small Station Orchestra. Conductor: Kloss. Toibner (Cello). Overture, "La dame blanche" (Boieldieu). Waltz (Bortkiewicz). Selection, "Adrienne Lecouvreur" (Cilea). Illustration-ensemble (Strauss). Selection, "The Mikado" (Sullivan). Forest Calm (Dvořák). Serenade, "Les millions d'arlequin" (Drigo). Norwegian Rhapsody (Svendson). Two Pieces (Lautenschläger): Mondnacht in Venedig, Eine kleine Liebeli.
OSLO, 3.30—Orchestra.
PARIS (Poste Parisien), 3.15—Exchange. 3.45—Exchange.
PRAGUE, 3.0—See 2.55 Brno. 3.45—Records.
ROME, 3.0—Orchestra from the Royal Academy of St. Cecilia. Conductor: Rossi. Ornella Puliti Santoliquido (Pianoforte) and Rachele Casella (Songs). In the Interval: News; Exchange.
SOTTENS, 3.0—See Beromünster.
STUTTGART, 3.0—See Leipzig.
BRNO, 3.0—Orchestra (contd. from

ture, "Münchhausen im Vogelberg" (Kiessig).
MONTE CENERI, 3.0—See Beromünster.
MOSCOW (No. 1), 3.0—News. 3.30—Communist Party Programme.
MUNICH, 3.0—Small Station Orchestra. Conductor: Kloss. Toibner (Cello). Overture, "La dame blanche" (Boieldieu). Waltz (Bortkiewicz). Selection, "Adrienne Lecouvreur" (Cilea). Illustration-ensemble (Strauss). Selection, "The Mikado" (Sullivan). Forest Calm (Dvořák). Serenade, "Les millions d'arlequin" (Drigo). Norwegian Rhapsody (Svendson). Two Pieces (Lautenschläger): Mondnacht in Venedig, Eine kleine Liebeli.
OSLO, 3.30—Orchestra.
PARIS (Poste Parisien), 3.15—Exchange. 3.45—Exchange.
PRAGUE, 3.0—See 2.55 Brno. 3.45—Records.
ROME, 3.0—Orchestra from the Royal Academy of St. Cecilia. Conductor: Rossi. Ornella Puliti Santoliquido (Pianoforte) and Rachele Casella (Songs). In the Interval: News; Exchange.
SOTTENS, 3.0—See Beromünster.
STUTTGART, 3.0—See Leipzig.
BRNO, 3.0—Orchestra (contd. from

FRIDAY Dec. 28

from 3.0). 4.20—Book Review. 4.40—Report; Exchange; Weather.
MONTE CENERI, 4.0—See Beromünster.
MORAVSKA-OSTRAVA, 4.0—Chamber Music. Station Quartet. Duet for Violin and Cello (Martini). Pianoforte Quintet in F minor (Franck).
MOSCOW (No. 1), 4.0—Communist Party Programme. 4.30—Literary and Musical Programme.
MUNICH, 4.0—Orchestra (contd. from 3.0). 4.30—Talk: Ascertaining the Price of Ore. 4.50—Koderie (Baritone). O del mio dolce amor' (Gluck). Letzte Hoffnung (Schubert). Heimweh (Wolf). Die Nacht (Strauss). Der Herr crstand (Rachmaningov). Heinrich der Vogler (Loewe).
OSLO, 4.0—Orchestra 4.50—Talk on Economics.
PARIS (Poste Parisien), 4.50—Exchange.
PARIS (Radio-Paris), 4.0—Exchange.
PRAGUE, 4.0—Chamber Music.
RADIO-NORMANDIE, 4.0—Dance Music. 4.30—For Children. 4.45—Dance Music.
ROME, 4.0—Orchestra (contd. from 3.0).
SOTTENS, 4.0—See Beromünster. 4.25—Accordion Duets. 4.45—Records.
STRASBOURG, 4.45—Talk: A Famous English Actor in Paris.
STUTTGART, 4.0—See 3.0 Leipzig. 4.30—Old German Christmas Airs by Müller (Baritone), Giesen (Pianoforte and Harpichord).
TURIN, 4.0—For Children. 4.10—Concert. 4.55—Weather.
VIENNA, 4.0—Handwork for Children. 4.25—Talk: Karl Faulmann. 4.35—Talk: Snow. 4.55—Lucie Ivanovic (Soprano) and Zdenka Pachler (Pianoforte).
WARSAW, 4.0—For Invalids 4.15—Mme. Skwarczewska (Soprano) and Ada Kaminska (Mezzo-soprano). 4.25—Fantasiestück, Op. 12 (Schumann), by Marie Bezobrazov (Pianoforte). 4.50—Book Review.

5 p.m.

BERLIN, 5.0—Announcements. 5.5—Book Review. 5.30—Talk: Soldiers. 5.45—Contemporary Music. Station Orchestra. Conductor: Steiner. Overture, Ausblick (Heddenhausen); Symphonic Dance Rhapsody (Rotters). Upper Silesian Dance Suite (Strecker).
BEROMÜNSTER, 5.0—Reading for Children. 5.30—Talk: Vulcanite.
BRATISLAVA, 5.0—Hungarian Transmission: Topical Talk; Hungarian Poems (Vozary); Slovak Lesson for Hungarians. 5.45—Sports Report.
BRESLAU, 5.0—Talk. 5.10—Report from the New Youth Hostel at Sulau. 5.50—Announcements.
BRNO, 5.0—Art Review. 5.10—Theatre Notes. 5.20—German Transmission: Sports Notes; Literary Review.
BRUSSELS (No. 1), 5.0—Poetry Reading. 5.15—Extracts, "Carmen"—Opera (Bizet), with Commentary.
BRUSSELS (No. 2), 5.0—Records. In the Intervals, Bella Panzini (Songs) Vergebliches Ständchen (Brahms). Aria, "Tannhäuser" (Wagner). Solveig's Song (Grieg). Aria, "Lohegrin" (Wagner). 5.45—For Children.
BUCHAREST, 5.0—News. 5.15—Station Orchestra.
BUDAPEST, 5.0—Light Music (contd. from 4.0). 5.20—Report of Boy Scouts' Christmas in the Open.
COLOGNE, 5.0—Sequence (contd. from 4.30). 5.15—Talk. 5.30—Talk: Old German Winter Customs. 5.45—Time; Weather; Exchange; Sports Report.
DEUTSCHLANDSENDER, 5.0—Sacred Songs (contd. from 4.45). 5.10—See Breslau. 5.55—Poem; Weather.
FRANKFURT, 5.0—For Young People. 5.15—Talk: The German Automobile Industry. 5.30—Review of the Year. 5.45—Weather; Exchange; Programme Announcements. 5.50—Orchestra from Kaiserslautern. Conductor: Schmidt. Overture, "The Bohemian Girl" (Balfe). Waltz, "The Arabian Nights" (Strauss). Elfensgeflüster (Rhode). Selection, "Der Bettelstudent" (Millöcker). Idylle passionnelle (Razigade). Pas des fleurs (Delibes). March, Heil Europa (Blon).
HAMBURG, 5.0—Reading of Winter Poems. 5.45—Announcements.
HILVERSUM, 5.0—For Children. 5.10—Orchestra. Conductor: v.d.



A Christmas Scene in Germany (The Black Forest)

By courtesy of the German Railways Bureau.

ture, "Franz Schubert" (Suppé). Records. Très jolie (Waldteufel). Au clair de lune (Ketelbey). Parade of the Lead Soldiers (Jessel). Selection, "La Traviata" (Verdi). March (Teike).
HUIZEN, 2.0—Records.
KALUNDBORG, 2.0—Rydahl Instrumental Ensemble. Anna Hagen (Songs). Folies bergère (Lincke). Suite (Pierne). European Ballet (Leuschner). Overture, "Der Schauspiel-direktor" (Mozart). Federhof-Möller and Olsen Songs. Chanson triste (Mervild). Gavotte (Mervild). Selection, "The Little Princess" (Rygaard). Serenade (Makwarth). Wiener Bürger (Ziehner). Romance (Gyldmark-Thingsted). Extract, "Countess Maritza" (Kálmán). Hokus Pokus (Leuschner).
KÖNIGSBERG, 2.0—Exchange. 2.10—Riddles for Children. 2.20—Three Stories for Women. 2.50—Book Review.
LEIPZIG, 2.0—Talk. 2.15—Sports Talk. 2.35—Exchange.
MOSCOW (No. 1), 2.15—For Children.
MUNICH, 2.0—For Women. 2.30—"The Peasants' Winter"—Sequence with Music (Andreas Weinberger). 2.50—Announcements.
PARIS (Poste Parisien), 2.0—Exchange.
PARIS (PTT), 2.0—Dance Records.
PRAGUE, 2.45—Exchange. 2.55—See Brno.
STUTTGART, 2.0—Songs (contd. from 1.45). 2.15—Stories for Children. 2.30—"The Two Wanderers"—Fairy Play (Grimm-Knab).
VIENNA, 2.0—Weather; Exchange. 2.20—For Children. 2.45—Reading: Diotima's Letters to Hölderlin. 2.40—For Young People.
WARSAW, 2.30—Announcements; Exchange. 2.35—Exchange. 2.45—Spanish Music from Cracow.

2.55. 3.45—Records. 3.55—Local News; For Housewives.
BUDAPEST, 3.10—Talk.
COLOGNE, 3.0—See Breslau.
DEUTSCHLANDSENDER, 3.0—See Breslau.
FRANKFURT, 3.0—See Berlin. In the Interval: Art Notes.
HAMBURG, 3.0—See Munich.
HILVERSUM, 3.0—Orchestra (contd. from 2.10). 3.40—Dressmaking.
HUIZEN, 3.0—Records. 3.55—K.R.O. Orchestra. Conductor: van 't Woud. Overture, Nachklänge aus Ossian (Gade). Suite, Aus Holberg's Zeit (Grieg). Selection, "Die Königskinder" (Humperdinck). Overture, Tempelweihe (Kéler-Béla). Potpourri, From A to Z (Geiger). Selection, "The Count of Luxembourg" (Lehár). Visioni Fuggenti (Ceri). Heinzelmännchens Wacht-parade (Noack). Record, Baboon Bounce (Cobb). Overture, "Casanova" (Lincke). Die Schönen von Valencia (Morena). Nola (Arndt). The Musical Box (Antiga). The Rookies (Drum).
KALUNDBORG, 3.0—Ensemble (contd. from 2.0).
KÖNIGSBERG, 3.0—Small Station Orchestra. Conductor: Wilcken. Overtures, "Rosamunde" (Schubert). Neapolitan Serenade (Bauer). Suite, Russian Melodies (Iljinski). Selection, "Der Freischütz" (Weber). Mozart Potpourri, Waltz, Estudiantina (Waldteufel). Madonnen-Serenade (Wismar). Dalia (Ferraris). Suppé Potpourri (Rhode). Overture, "Eine Nacht in Venedig" (Strauss).
LEIPZIG, 3.0—Leipzig Symphony Orchestra. Conductor: Stellen. Overture, "The Templars" (Nicolaï). Concerto in Old Style for Two Flutes and Strings (Hoyer) Bilder aus dem Osten (Schumann). Overture, "A Life for the Czar" (Glinka). Abendstimmung (von Bose). Pastorale (von Bismg). Over-

TURIN, 3.35—News. 3.45—For Children.
VIENNA, 3.5—News. 3.10—Variety Programme.
WARSAW, 3.0—Spanish Music (contd. from 2.45). 3.45—For Invalids.
4 p.m.
BERLIN, 4.0—Orchestra (contd. from 3.0).
BEROMÜNSTER, 4.0—Vocal and Instrumental Concert, by Children.
BRESLAU, 4.0—Orchestra (contd. from 3.0). 4.30—Weather; Markets. 4.35—Hans von Hülsen reads. 4.55—Winter Relief Appeal.
BRUSSELS (No. 1), 4.55—Announcements.
BRUSSELS (No. 2), 4.55—Announcements.
BUDAPEST, 4.0—Light Music by the Opera House Orchestra. Conductor: Rajter.
COLOGNE, 4.0—Loewe Ballads. Rolf Parr. (Baritone). 4.30—"The Fir Tree"—Sequence (Oto Brtes).
DEUTSCHLANDSENDER, 4.0—See 3.0 Breslau. 4.30—Wireless Notes. 4.45—Sacred Songs, by Henny Wolff (Songs), Muntzel (Organ), Woywode and Stuhlmann (Violins). Ich werde nicht sterben (Schütz). Jauchze dem Herrn alle Welt (Brunn).
FRANKFURT, 4.0—See 3.0 Berlin.
HAMBURG, 4.0—See 3.0 Munich. 4.30—Talk: The New China. 4.45—For Young People.
HILVERSUM, 4.0—Dressmaking. 4.25—Records. 4.40—For Children.
HUIZEN, 4.0—Orchestra (contd. from 3.55). 4.40—For Farmers.
KALUNDBORG, 4.0—For Children. 4.30—Exchange.
KÖNIGSBERG, 4.0—Topical Report. 4.15—Orchestra (contd. from 3.0). 4.50—For Farmers.
LAHTI, 4.0—Talk. 4.30—Hanns Alvas (Flute). 4.50—News.
LEIPZIG, 4.0—Orchestra (contd.

FRIDAY Dec. 28

5 p.m. (contd.)

Horst Czardas, "Der Geist des Wajoweden" (Grossmann). Ein armer Wanderbursch (Vacek). Charms of Spain (Mezzacapo). Polish Dance (Scharwenka). Babilage (Gillet). Czech Polka (Ballig). 5.40—Records. 5.55—Light Music. HUIZEN, 5.0—For Farmers. 5.10—Orchestra (contd. from 3.55). KALUNDBORG, 5.5—Poem. 5.15—Literary Talk: Harald Kiddes' Novels. 5.45—Announcements. KÖNIGSBERG, 5.0—For Farmers. 5.15—Market Prices. 5.30—Talk: The Third Reich. 5.55—Announcements. LAHTI, 5.0—Weather. 5.10—News in Swedish. 5.15—Talk. 5.40—Harry Bergström (Pianoforte). LEIPZIG, 5.0—Military Talk. 5.20—Records. 5.50—Christmas Folk Music. Station Chamber Choir. Conductor: Werle. Walter Götz (Guitar). LYONS (La Doua), 5.0—Monnin (Cello). MORAVSKÁ-OSTRAVA, 5.0—German Transmission: For Children; Talk; News; Tourist Report. 5.35—Local News; Tourist Report. 5.45—Reading. MOSCOW (No. 1), 5.0—Literary and Musical Programme. MUNICH, 5.0—Baritone (contd. from 4.50). 5.10—Talk: German Manufactures. 5.20—Talk on Records by Dr. Kunst: Broadcasting and the Law. 5.30—Skiing Lesson. 5.50—Announcements. OSLO, 5.0—For Children. PARIS (PTT), 5.25—Music Talk 5.45—Talk. PRAGUE, 5.0—Markets. 5.10—For Workers. 5.20—German Transmission: Sports Review; Talk on Art; Topical Talk; News. RADIO-NORMANDIE, 5.0—Dance Music. 5.15—Records. 5.45—Orchestra. ROME, 5.0—Wheat Market. 5.10—Religious Talk. SOTTENS, 5.0—Talk. 5.25—Strauss Waltzes. Lausanne Orchestra. Conductor: Desarzens. 5.45—Light Music. Small Radio-Lausanne Orchestra. Conductor: Desarzens. Polka, Tritsch-Tratsch (Strauss). March, Le Père le Victoire (Ganne). March, Versailles (Cossel). March (Dal Monte). STOCKHOLM, 5.0—Records. 5.30—Review of Foreign Affairs. STRASBOURG, 5.0—Cello and Pianoforte Recital. 5.25—See Paris (PTT). 5.45—Records. STUTTGART, 5.0—Music by School-children. 5.30—Paul Lincke Music. 5.45—"The Old Year"—Variety. Willi Wende Band. Ladewig and Meister (on Two Pianofortes). TURIN, 5.0-10—For Farmers. VIENNA, 5.25—Weekly Sports Report. 5.35—Talk: Winter Sports in Carinthia. 5.50—Chess Tournament Report. WARSAW, 5.0—For Young Country People. 5.10—Talk: Art. 5.15—String Quartet (Rozycski) by the Station Quartet. 5.45—Talk: Between Persia and Irak.

6 p.m.

ALGIERS, 6.0—Arabian Lesson. 6.15—Dance Records. 6.30—Talk. 6.45—Exchange. 6.55—Weather. ATHLONE, 6.0—For Children. 6.45—News. BARI, 6.15—Weather; News in Foreign Languages; Records. BERLIN, 6.0—Contemporary Music (contd. from 5.45). 6.40—Evening Echoes. BEROMÜNSTER, 6.0—Announcements. 6.30—Monique Haas (Pianoforte). BORDEAUX-LAFAYETTE, 6.30—News. BRATISLAVA, 6.10—Record. 6.15—Talk: Slovak Songs. BRESLAU, 6.0—See Deutschlandsender. BRNO, 6.10—Record. 6.15—French. BRUSSELS (No. 1), 6.0—Talk for Motorists: Winter Wisdom. 6.15—Request Records. 6.30—Chamber Music. Mlle. Delporte (Pianoforte) and Denocker (Cello). Sonata in G minor (Haydn). Plainte et papillon (d'Hervelois). Aria (Boccherini). Die Quelle (Schumann). BRUSSELS (No. 2), 6.0—For Children. 6.25—To be announced. 6.30—Orchestra. Conductor: Walpot. Triomphe (Popy). Au village (Gillet). Waltz (Bucalossi). 6.45—A Visit to a Flemish Youth Hostel—Songs by Morgendauw. Choir with Lute and Fiddle Fute Accompaniment.

BUCHAREST, 6.0—Literary Talk. 6.20—Records: Popular Spanish Music. 6.45—Talk. BUDAPEST, 6.0—Boy Scouts' Report (contd. from 5.20). 6.10—Sports Notes. 6.24—Talk. 6.30—"Arabella"—Opera (Strauss) from the Opera House. COLOGNE, 6.0—Peasant Band, Choirs, Soloists. Conductor: Kneip 6.30—Snapshots. DEUTSCHLANDSENDER, 6.0—Dance Music with Erika Helmke. FRANKFURT, 6.0—Orchestra (contd. from 5.50). 6.45—Topical Talk. HAMBURG, 6.0—Magdeburg Composers. Orchestra from the Stadthalle, Magdeburg. Conductor: Theil. Hedwig Heyer (Songs) and Seeboth (Pianoforte). Symphonic Fantasia (Hirte). Two Songs (Kaufmann): (a) Ich sah einen Adler, (b) Und ist's ein Wahn. Comedy Overture (Theil). 6.45—Talk on Records: Broadcasting and the Law. HILVERSUM, 6.0—Light Music. 6.25—Records. 6.40—Orchestra. Conductor: Wallis. Servus Wien (Dostal). Hungarian Melodies. The Phantom Brigade (Myddelton). HUIZEN, 6.0—Orchestra (contd. from 3.55). 6.40—Police Messages. 6.55—Talk. KALUNDBORG, 6.0—News. 6.16—Talk: Annual Sales. 6.30—Talk. KÖNIGSBERG, 6.0—Announcements. 6.10—Beethoven Pianoforte Recital by Joachim Ansgore. Rondo in G. The Pathetic Sonata. 6.35—"Fire on the Mountains"—Winter Solstice Festival Sequence with Music (Neubert). LAHTI, 6.0—Talk. 6.20—Trio (Beethoven) by the Hannikainen Trio. LEIPZIG, 6.0—Folk Music (contd. from 5.50). 6.35—The Old Year—Folk Customs. LYONS (La Doua), 6.0—Talk. 6.30—News. MONTE CENERI, 6.15—Book Review. 6.30—Records: Neapolitan Songs. Frenesia (Falvo-Leticio). Parlatema's Maria (Falvo-Fusco). Ninuccia (Valente-De Curtis). Come se canta a Napule (Mario). A Sirena (Valente-Di Giacomo). MORAVSKÁ-OSTRAVA, 6.30—Dance Music. MUNICH, 6.0—Station Dance Band. Conductor: Aulich. 6.40—Talk: Art. OSLO, 6.0—Book Review. 6.15—News. 6.30—Time. 6.31—To be announced. PARIS (Poste Parisien), 6.25—Exchange. 6.30—Theatre Notes. 6.37—Records. 6.50—Talk. 6.57—Debussy Records: Nuages. Fêtes. PARIS (PTT), 6.0—For Women. 6.30—News. PARIS (Radio-Paris), 6.10—Announcements. 6.30—Readings (d'Aubigné). 6.45—Theatre Review. PRAGUE, 6.0—News. 6.10—Record 6.15—Reading. 6.30—See Moravská-Ostrava. RADIO-NORMANDIE, 6.0—For Children. 6.30—For Farmers. 6.50—News. ROME, 6.0—News. 6.15—News in Foreign Languages. SOTTENS, 6.0—Tourist and Sports Report. 6.15—Light Music. Small Radio Lausanne Orchestra. Conductor: Desarzens. Overture, "Nebuchadnezzar" (Verdi). Dance (Debussy). Les petits riens (Mozart). Selection, "A Waltz Dream" (Strauss). 6.40—"Political Review". 6.59—Weather. STOCKHOLM, 6.0—English and French Carols by Svänfelt. The Holly and the Ivy. As I sat on a Sunny Bank. La Nativité. Tous les bourgeois de Châtre. La Messe de Minuit. 6.15—News. 6.30—Records. STRASBOURG, 6.0—Topical Talk in German. 6.15—Tourist Talk. 6.30—Orchestra. Conductor: De Villers. Overture, "The Secret Marriage" (Cimarosa). Selection, "Samson and Delilah" (Saint-Saëns). Scène gitane (Gross). Légende pathétique (Dalaunay). Ballet de cour (Pierne). Spanish Dance (Granados). STUTTGART, 6.0—Variety (contd. from 5.45). TOULOUSE (Radio-Toulouse), 6.0—News. 6.15—Opérette Airs. 6.30—Light Music. 6.45—Songs. TURIN, 6.0—Announcements. 6.15—News in Foreign Languages. VIENNA, 6.5—News. 6.10—Report from the Ravag Jubilee Exhibition: Christmas Toasts in 1883. 6.15—Thoughts at the Year's Close (Heinrich Suso Waldku). 6.45—Vienna Symphony Orchestra. Conductor: Holzer. Victor Flemming (Tenor). Extracts, "Das Pensionat" (Suppé). Tenor Solo: "Trau' keiner Frau (Jaschaitz). Caprice

brillant (Glinka). Tenor Solo: Waltz Song, Rouge et noir (Flemming). Waltz, Mein Lebenslauf ist Lieb und Lust (Strauss). Tenor Solo: Zuerst kommt Oesterreich (Leopold). Liebeswälder (Ziehrer). Potpourri, Wiener Leben (Komzak). WARSAW, 6.0—Light Music. 6.20—Topical Talk. 6.30—Light Music. 6.45—Programme Announcements. 6.50—Sports Notes. 7 p.m. ALGIERS, 7.0—Song Records. 7.15—Choir. 7.30—Literary Talk. 7.45—Lottery Results. 7.55—News. ATHLONE, 7.0—Literary and Dramatic Talk, by Aodh de Blacm. 7.15—Readings. 7.30—Time. 7.31—Station Orchestra. BARI, 7.45—Programme for Greece. Greek National Anthem; To be announced. In the Interval: News in Greek. BERLIN, 7.0—News. 7.15—See Leipzig. BEROMÜNSTER, 7.0—"A Picture-Book for Grown-Ups"—Poetry Sequence (arr. Dr. Olga Brand), with Music by Wermelinger, the Composer at the Pianoforte. 7.40—Station Orchestra. Conductor: Gilbert. BORDEAUX-LAFAYETTE, 7.45—Spanish Lesson. BRESLAU, 7.0—News. 7.15—See Leipzig. BRNO, 7.10—"Gulliver's Journey to Lilliput"—Play, after Swift (Sievingk). Music by Suchy. BRUSSELS (No. 1), 7.0—Talk: An ultra-modern Wireless Receiver. 7.15—Reading (Sincère). 7.30—Legal Review; Literary Talk. BRUSSELS (No. 2), 7.0—Talk: Youth Hostels. 7.15—Flemish Songs by the Morgendauw Choir. 7.30—News. BUCHAREST, 7.0—Dance Music. Sibicano (Pianoforte). 7.30—Stofaneco-Goanga (Songs). 7.50—Letter-Box. BUDAPEST, 7.0—"Arabella"—Opera (Strauss) (contd. from 6.30). COLOGNE, 7.0—News. 7.15—See Leipzig. DEUTSCHLANDSENDER, 7.0—Motto; News. 7.15—See Leipzig. FRANKFURT, 7.0—Time; News. 7.15—See Leipzig. HAMBURG, 7.0—News. 7.15—See Leipzig. HILVERSUM, 7.0—Orchestra (contd. from 6.40). 7.10—Talk: Karl Marx. 7.30—Records; Announcements. 7.40—Hofstaal String Quartet. HUIZEN, 7.0—Talk (contd. from 6.55). 7.15—Records. 7.40—News. 7.45—Records. KALUNDBORG, 7.1—Review by Per Knutzon. 7.10—French Music. Radio Orchestra. Conductor: Reesen. Overture, "Giroffé-Giroffa" (Lecocq). Pomona (Waldteufel). Selection, "La Mascotte" (Audran). Marche lorraine (Ganne). Overture, "Les Cloches de Corneville" (Planquette). Gipsy Mazurka (Waldteufel). March (Turlot). 7.50—Students' Songs, by Poul Knudsen, with Introductory Talk. KÖNIGSBERG, 7.0—News. 7.15—See Leipzig. LAHTI, 7.0—Recitations. 7.20—Records. 7.45—News. LEIPZIG, 7.0—News. 7.15—Transmission for all German Stations. Dresden Philharmonic Orchestra. Conductor: Blumer (Pianoforte). Günther Baum (Baritone), Haas Richter-Haaser (Pianoforte). Strings and Two Horns: Presto, Ein musikalischer Spass, (Mozart). Pianoforte Solo: Rondo, Die Wut über den verlorenen Groschen (Beethoven). Song, Der Rattenfänger (Wolf). Two Pianofortes: Duettino concertante on a Mozart Theme (Busoni). Overture, "Champagner" (von Baussnern). LYONS (La Doua), 7.30—Local News. 7.40—Lottery Results. 7.50—Talk: Art. MONTE CENERI, 7.0—Station Orchestra. March, Sambre et Meuse. 7.5 (approx.). "Erma Bifronte"—Play in Three Acts (Moruccio). In the Interval: Orchestral Music. MORAVSKÁ-OSTRAVA, 7.0—Dance Music. MUNICH, 7.0—News. 7.15—See Leipzig. OSLO, 7.0—To be announced. 7.10—Christmas Programme: Old and Modern Dances; Talks; Songs. PARIS (Poste Parisien), 7.7—Sports Talk. 7.10—News. 7.25—Amusement Guide. 7.28—Circus Programme. 7.48—Records of André Baugé. PARIS (PTT), 7.45—Talk: The National Museums. 7.53—Review of Foreign Politics. PARIS (Radio-Paris), 7.0—Talk: Song-writing. 7.15—Literary Review. 7.28—Assurance Societies' Report. 7.30—Topical Talk.

PRAGUE, 7.0—See 6.30 Moravská-Ostrava. 7.10—See Brno. RADIO-NORMANDIE, 7.0—Request Programme. ROME, 7.0—News. 7.10—Records. 7.30—Announcements; Talk. 7.45—Variety. SOTTENS, 7.0—Motets and Madrigals. Choir. Conductor: Opienski. Mlle. Lily Merminod (Pianoforte). Sola soletta (Conversi). Il bell'humore (Gastolde). Ce ne l'ose dire (Certon). O joly jeu (Jannequin). Pianoforte Solos: (a) Three Sonatas (Scarlatti), (b) Les tendres plaintes (Rameau), (c) La poule (Rameau). O la che buon echo (de Lassis). Il est bel et bon (Passeur). Sixteenth Century Song: Wohl auf. Chant des oiseaux (Jannequin). Pianoforte Sonata in E flat (Haydn). La Jalouise (Jannequin). Quand mon mari (de Lassus). Le terre les eaux va buvant (Ronard). Chanson à boire (de Bousset). STOCKHOLM, 7.0—"Days without end"—Miracle Play (O'Neill). STRASBOURG, 7.0—Orchestra (contd. from 6.30). 7.30—News. 7.45—Records. STUTTGART, 7.0—News. 7.15—See Leipzig. TOULOUSE (Radio-Toulouse), 7.0—Songs. 7.10—Sound-Film Music. 7.30—News. 7.45—Talk. TURIN, 7.0—News; Records. 7.30—Announcements. Government Notes. 7.45—Records. VIENNA, 7.0—Orchestra (contd. from 6.45). 7.45—Announcements. WARSAW, 7.0—Talk: Hints for Holidays. 7.5—Music Talk. 7.15—Symphony Concert. Warsaw Philharmonic Orchestra. In the Interval: News; Talk: Work in Poland. 8 p.m. ALGIERS, 8.0—Records. 8.15—Song Records. 8.25—News. 8.30—Symphony Concert. Station Orchestra. Conductor: Defosse. Soloist: Mlle. Perry. Symphony in A minor (Saint-Saëns). Suite, Children's Corner (Debussy). ATHLONE, 8.0—Violet Pearson (Soprano). 8.10—Station Orchestra. 8.30—Violet Pearson (Soprano). 8.40—Drama, presented by the Mummies. BERLIN, 8.0—"Echoes of the Year"—Sequence (Hermann Proebst). BEROMÜNSTER, 8.0—News. 8.10—Gösta Andreasson (Violin), Hermann Busch (Cello), and Eduard Henneberger (Pianoforte). BORDEAUX-LAFAYETTE, 8.0—See Paris (PTT). 8.10—News. 8.30—Records. BRESLAU, 8.0—"La serva padrona"—Opera (Pergolesi). Conductor: Prade. BRNO, 8.0—"Gulliver's Journey to Lilliput"—Play (contd. from 7.10). BRUSSELS (No. 1), 8.0—Military Programme. War Reminiscences. Foreign Marches, with a Commentary by Eugène Colin. Songs by Mme. Urban: (a) Cradle Song, from Princess Maria Pia of Savoy (Waucamp), (b) Cradle Song, for Prince Albert of Belgium (Waucamp). Three War Poems. Report for Ex-Servicemen. BRUSSELS (No. 2), 8.0—Record: Mijne Moedertaal (Brandts-Buys). 8.3—Symphony Orchestra. Nora Arnouts (Songs), De Backer (Pianoforte). Part I.—Flemish Music. Humoresque (Wambach). Willem de Zwijgerbespiegeling (Mortelmans). Four Flemish Songs. Humoresque (Gilson). Jubilee March (De Boeck). 8.45—Review of the Year 1934. BUCHAREST, 8.0—Letter-Box. 8.10—Station Orchestra. BUDAPEST, 8.0—"Arabella"—Opera (Strauss) (contd. from 6.30). COLOGNE, 8.0—"Josef the Butler"—Play (Paul Apel). 8.35—Johann Strauss Music (on Records). Vienna Philharmonic Orchestra. Conductor: Clemens Krauss. March, "The Gipsy Baron." Annen-Polka. Morgenblätter. Leichtes Blut. Perpetuum mobile. DEUTSCHLANDSENDER, 8.0—Contemporary Music. Berlin Philharmonic Orchestra. Conductor: Schuricht. Heitere Musik (Müller). Concerto (Unger). Symphonic Poem: Le fontane di Roma (Respighi). FRANKFURT, 8.0—"The Canal"—Play (Josef Martin Bauer). HAMBURG, 8.0—Orchestra, from the Deutsches Haus. Conductor: Schubert. Overture, "Der Wildschütz" (Lortzing). First Rhapsody (Liszt). Finale, from the Serenade (Haas). Three Polkas (Strauss). Selection, "Schön ist die Welt" (Lehar). Waltz (Strauss). Schleswig-Holstein meerumschlungen (Warnecke). HILVERSUM, 8.0—Hofstaal String Quartet. 8.10—Play (Leuw). HUIZEN, 8.0—Records. 8.10—Maestricht Municipal Orchestra. Con-

ductor: Hermans. Jaap and Haaken Stouijn (Oboe) and Raskin (Violin). Overture, "The Taming of the Shrew" (Wagenaar). Concerto for Two Oboes and Orchestra (Voormolen). Epigrams (Pijper). Dance Rhapsody (Weil). Oboc Concerto (Willemeijn). Variations on Le Vivat (Voormolen). Overture, "Baron Hop" (Voormolen). 8.55—Talk. JUAN-LES-PINS (Radio Côte d'Azur), 8.0—News; Sound-Film Songs; Orchestra. KALUNDBORG, 8.0—Students' Songs (contd. from 7.50). 8.35—Norwegian Music. Radio Orchestra. Conductor: Reesen. Lyric Suite (Grieg). Norwegian Rhapsody (Svendsen). KÖNIGSBERG, 8.0—Symphony in D minor (Anton Bruckner). Königsberg Opera House Orchestra. Conductor: Wolfgang Brückner. LAHTI, 8.0—News in Swedish. LEIPZIG, 8.0—"Das Merdelein"—Play (Kuhnert). LYONS (La Doua), 8.0—Talk: Wine. 8.10—For Tourists. 8.20—Veterinary Talk. 8.30—Literary Programme. MADRID (EAJ7), 8.15—News. 8.30 (approx.). Moreno (Guitar). MONTE CENERI, 8.0—"Erma Bifronte"—Play (Moruccio) (contd. from 7.5). MOSCOW (No. 1), 8.0—New Year's Eve—Humorous Programme in Czech. 8.55—Chimes. MUNICH, 8.0—"Die Kickers"—Comedy (Buch). OSLO, 8.0—Christmas Programme (contd. from 7.10). In the Interval at 8.40: News. PARIS (Poste Parisien), 8.10—Exchange. 8.15—"Pêcheurs d'ombres"—Play, in Three Acts (Sarment). In the Interval: Exchange. PARIS (PTT), 8.0—Talk: Air Defence. 8.10—Records: Military Music. 8.30—Chamber Music. Paris Quintet and Alice Raveau (Songs). Sonata (Scarlatti). Trio Sonata (Leclair). Songs: (a) Jazz dans la nuit (Roussel), (b) L'enigme éternelle (Ravel). Sérénade (Roussel). Songs: Une femme (Lazafai), Filicuse (Laparra). Suite en parties (d'Indy). PARIS (Radio-Paris), 8.0—Variety Concert. Scenes from "X. Y. Z."—Revue; Songs. In the Interval: News. PRAGUE, 8.0—See 7.10 Brno. 8.25—String Quartet in E flat (Dvořák), by the Ondricek Quartet. RADIO-NORMANDIE, 8.0—Duets. 8.30—Wireless Notes. 8.45—Concert. REYKJAVIK, 8.0—Records. 8.25—Musical Programme. 8.50—Announcements. ROME, 8.0—Variety. (contd. from 7.45). SOTTENS, 8.0—"Motets and Madrigals" (contd. from 7.0). 8.15—News. 8.25—Choir and Orchestra, from Fribourg. Greetings to Zurich (Mantegazzi). Piece (Abt). St. Hubert (Daniderf). Finlandia (Sibelius). March, "Aida" (Verdi). Grindelwald (Kreuger). The Bridge of Sighs (Hack). Schatzwalzer (Strauss). STOCKHOLM, 8.0—"Days without end" (O'Neill) (contd. from 7.0). 8.45—News. STRASBOURG, 8.0—News in German. 8.30—Records. STUTTGART, 8.0—See Deutschlandsender. TOULOUSE (Radio-Toulouse), 8.0—Talk. 8.15—Duets. 8.30—Medical Talk. TURIN, 8.0—Symphony Concert. Conductor: La Rosa Parodi. Amphitheatro (Cello). Symphony No. 2 in D (Brahms). Two Intermezzi for Strings (Alfano). Baritone, Choir and Instruments: Salmodia (Rocca). "Cello and Orchestra: Poema (La Rosa Parodi). Siegfried's Rhine Journey (Wagner). Overture, "The Siege of Corinth" (Rossini). In the Interval: Talk. VIENNA, 8.0—"Popular Figures of many Nations." 8.5—Vienna Symphony Orchestra. Conductor: Konrath. Otto Staeren (Baritone). Overture, "Genevova" (Schumann). "Aria," "Der liebe Augustin" (Bittner). Symphonic Poem, Till Eulenspiegel's Merry Pranks (Strauss). Overture and Aria, "Don Giovanni" (Mozart). Extracts, "Don Quixote" (Kienzl). Suite, Hary Janos (Kodaly). Extracts, "Schwanda the Bagpiper" (Weinberger). Piece (Mozart). In the Interval at 8.30: News. WARSAW, 8.0—Symphony Concert (contd. from 7.15). 9 p.m. ALGIERS, 9.0—Symphony Concert (contd. from 8.30). 9.55—News. ATHLONE, 9.0 Drama (contd. from 8.40). 9.20—Richard Brown (Anglo-Irish Songs). 9.35—Owen Connolly

9 p.m. (contd.)

(Traditional Fiddle). 9.45—S. Mac-Aonghusa (Pipes).  
**BARCELONA**, 9.0—Chimes; Announcements; Exchange. 9.8—Variety.  
**BELGRADE**, 9.0—Press Review. 9.20—Cabaret.  
**BERLIN**, 9.0—News; Sports Notes. 9.20—Freundorfer Instrumental Quartet. Ingrid Larsen (Saxophone). March, Die singende Zither (Freundorfer). Ländler: Mei Hut ist voller Edelweiss (Freundorfer). Saxophone Solos: (a) Humoresque (Dvořák), (b) Ballet-treinen (Carste). Ein Abend im Münchener Hofbräu (Derksen). Bayrischzell (Staudacher). Saxophone Solos: (a) Valse niazonetta (Widoeff), (b) Saxophongelächter (Glombig). Ländler: Frieden auf der Alm (Freundorfer). March, Drunter und drüber (Freundorfer).  
**BERMUNSTER**, 9.0-9.15—Violin, Cello and Piano forte (contd. from 8.10).  
**BORDEAUX-LAFAYETTE**, 9.0—Symphony Concert, with Song.  
**BRATISLAVA**, 9.15—News in Hungarian. 9.30—Records.  
**BRESLAU**, 9.0—News. 9.25—Wireless Notes. 9.35—Beethoven Recital by Georg Dohrn (Piano forte). Sonata in E flat. Sonata in G.  
**BRUSSELS** (No. 1), 9.0—Military Programme (contd. from 8.0). 9.15—"Leave"—Sketch of Life at the Front (De Praetere). 9.35—Radio Orchestra. Conductor: André Marguerite Jacques (Songs). Suite, Four Ways (Coates). Songs (d'Agrèves): (a) Le faune, (b) Je voudrais te la dire, (c) Berceuse nocturne. Waltz Potpourri (Strauss).  
**BRUSSELS** (No. 2), 9.0—Orchestra (contd. from 8.3). Part II. Schubert Music. Overture and Ballet, "Rosamunde." Lieder. Ave Maria (arr. for Orchestra). March. German Dances. 9.55—Announcements.  
**BUCHAREST**, 9.0—News. 9.25—Station Orchestra.  
**BUDAPEST**, 9.0—"Arabella"—Opera (Strauss) (contd. from 6.30). 9.50—Farkas Cigány Band.  
**COLOGNE**, 9.0—Time; News. 9.15—Talk by Dr. Knust: Broadcasting Law. 9.25—Film Review.  
**DEUTSCHLANDSENDER**, 9.0—News. 9.45—Weather.

**FRANKFURT**, 9.0—Time; News. 9.10—Local News; Sports Report. 9.15—Topical Talk. 9.30—Sports Review.  
**HAMBURG**, 9.0—News. 9.20—Musical Interlude.  
**HILVERSUM**, 9.0—Play (Leeuw) (contd. from 8.10). 9.10—Hofsted String Quartet. 9.40—News. 9.55—Reading.  
**HUIZEN**, 9.0—Talk (contd. from 8.55). 9.15—Orchestra (contd. from 8.10).  
**JUAN-LES-PINS** (Radio Côte d'Azur), 9.0—News; Orchestra.  
**KALUNDBORG**, 9.0—News. 9.15—Wolf Songs by Karen Kaysen. 9.35—Contemporary Danish Music. Radio Orchestra. Conductor: Reesen. Soraner Suite (Hamerik). Concert Overture (Sensino).  
**KÖNIGSBERG**, 9.0—News; Sports Notes. 9.30—See Munich.  
**LEIPZIG**, 9.0—News; Sports Notes. 9.20—Station Orchestra. Conductor: Schröder. Overture, "Nebuchadnezzar" (Verdi). Wedding Day on Trolldhaugen (Grieg). Suite (Micheli). Dornröschens Brautfahrt (Rhode). Overture, "Morning, Noon and Night" (Suppé). Selection, "Paganini" (Lehár). In lauschiger Nacht (Ziehrer). German March Potpourri (Blankenburg).  
**LYONS** (La Doua), 9.0—Literary Programme. After the Programme: News.  
**MADRID** (EAJ7), 9.0—To be announced. 9.8—See Barcelona.  
**MOSCOW** (No. 1), 9.0—Chimes. 9.5—English Programme: (a) For Women, (b) Discussion: Soviet Elections.  
**MUNICH**, 9.0—News. 9.20—To be announced. 9.30—Schwarz Dance Band.  
**OSLO**, 9.0—Topical Talk. 9.15 (approx.)—Christmas Programme (contd. from 7.10).  
**PARIS** (Poste Parisien), 9.0—"Pêcheurs d'ombres"—Play (contd. from 8.15).  
**PARIS** (PTT), 9.0—Chamber Music (contd. from 8.30).  
**PARIS** (Radio-Paris), 9.0—Variety Concert (contd. from 8.0). In the Interval at 9.15 (approx.)—News; Dietetics.  
**PRAGUE**, 9.0—News. 9.15—Records. 9.30-9.45—Russian News.  
**RADIO-NORMANDIE**, 9.0—Orchestra.  
**REYKJAVIK**, 9.0—News. 9.30—Reading.

**ROME**, 9.0—Variety (contd. from 7.45).  
**SOTTENS**, 9.0-9.15—Choir and Orchestra (contd. from 8.25).  
**STOCKHOLM**, 9.0—Asti Orchestra. March (Wohliert). Rose mousse (Bosc). Minuet (Ganne). Overture, "Martha" (Flotow). Liebesträume (Liszt). Strauss Potpourri (Schlögel). Slav Dance (Dvořák).  
**STRASBOURG**, 9.0—Italian Music by Alfred Peter (Songs) and Eschrich (Piano forte). Songs: (a) Sebben crudelle (Caldara), (b) Vittoria, Vittoria (Carissiml), (c) Caro mio ben (Giordani). Piano forte Sonata (Galuppi). Songs: (a) O cessate di piangermi (Scarlatti), (b) Amarilli (Caccini), (c) Pupillette (Falconieri). Pieces for Piano forte (Casella). Songs: (a) Nebbie (Respighi), (b) I due tarli (Zandonai), (c) L'ultima rosa (Zandonai).  
**STUTTGART**, 9.0—Time; News; Sports Notes. 9.15—Local News. 9.30—"Theodor Fontane"—Sequence of Reading, Recitation and Song (Martin Lang).  
**TOULOUSE** (Radio-Toulouse), 9.0—"Aux oiseaux"—Fantasy. 9.30—Symphony Orchestra.  
**TURIN**, 9.0—Concert (contd. from 8.0).  
**VIENNA**, 9.0—Orchestra (contd. from 8.5). 9.45—News.  
**WARSAW**, 9.0—Symphony Concert (contd. from 7.15). 9.30—Recitation of Christmas Poems. 9.40—Light Music.

10 p.m.

**ATHLONE**, 10.0—Variety. 10.30—Time; News. 10.40—Records.  
**BARCELONA**, 10.0—News. 10.5—Munier Quintet.  
**BERLIN**, 10.0—"Das Wunder der Nacht"—Christmas Scenes (Eberhard Schulz).  
**BRESLAU**, 10.0—Beethoven Piano forte Recital (contd. from 9.35). 10.20—Records.  
**BRUSSELS** (No. 1), 10.0—News. 10.10—Request Records. 10.25—Accordion Solos.  
**BRUSSELS** (No. 2), 10.0—News. 10.10—Popular Flemish Songs. 10.25—Dance Records.  
**BUDAPEST**, 10.0—Farkas Cigány Band.  
**COLOGNE**, 10.0—Light Music; Dance Music from the Café Corso, Hamm. Farkas Miska Band

**DEUTSCHLANDSENDER**, 10.0—Monthly Political Review (on Records). 10.25—See 10.0 Hamburg.  
**FRANKFURT**, 10.0—"People and Provinces"—Sequence.  
**HAMBURG**, 10.0—Bremer Stadtmusikanten. Conductor: Krug. Ella Schmidt (Violin). The Conductor at the Piano forte. Overture, "The Nuremberg Doll" (Adam). Ausklang (Leuschner). Allegretto (Boccherini). Wiegeliend (Reger). Waltz (Weber). Neapolitan Serenade (Bauer). Liebeslied (Strauss). Prayer (Schröder). Zigeunerweisen (Sarasate). German Rhapsody (Köhler).  
**HILVERSUM**, 10.0—Reading. 10.25—Records.  
**HUIZEN**, 10.0—Records. 10.10—News. 10.15—Light Music and Dance Music. K.R.O. Boys. Conductor: Lustenhouwer. 10.55—Record.  
**JUAN-LES-PINS** (Radio Côte d'Azur) 10.0—International Programme.  
**KALUNDBORG**, 10.0—Petersen Dance Band.  
**KÖNIGSBERG**, 10.0—See Munich.  
**LEIPZIG**, 10.0—Orchestra (contd. from 9.20).  
**MADRID** (EAJ7), 10.0—Chimes. 10.5—News. 10.15 (approx.)—Relay from a Theatre.  
**MOSCOW** (No. 1), 10.5—German Talk: The Monopoly of Foreign Trade.  
**MUNICH**, 10.0—Schwarz Dance Band.  
**OSLO**, 10.0—Christmas Programme (contd. from 7.10).  
**PARIS** (Poste Parisien), 10.0—"Pêcheurs d'ombres" Play (contd. from 8.15). 10.30—Records.  
**PARIS** (PTT), 10.0—"The Glass of White Wine"—One-Act Play (Wachtausen).  
**PARIS** (Radio-Paris), 10.0—Variety (contd. from 8.0). 10.30—Bailly Dance Band.  
**REYKJAVIK**, 10.0—Variety.  
**ROME**, 10.0—News.  
**STRASBOURG**, 10.0—News. 10.5—Orchestra. Conductor: Théodore. Waltz, Die Schönbrunner (Lanner). Two Italian Songs (Volpatti). Selection, "The Valkyrie" (Wagner). Hungarian Dance No. 5 (Brahms). Viennese Potpourri, Vindobona (Leopold).  
**STUTTGART**, 10.0—See Hamburg.  
**TOULOUSE** (Radio-Toulouse), 10.0—"Au caveau dix heures"—Fantasy.

FRIDAY Dec. 28

10.15—News. 10.30—"Le boeuf sous le toit"—Fantasy.  
**TURIN**, 10.0—News. 10.10—Announcements in Spanish.  
**VIENNA**, 10.5—"Old Vienna"—Strauss-Lanner Quartet.  
**WARSAW**, 10.5—Dance Music.

11 p.m.

**BRUSSELS** (No. 1), 11.0—La Brabançonne.  
**FRANKFURT**, 11.0—Symphony Orchestra. Conductor: Adam.  
**HILVERSUM**, 11.0-11.40—Records.  
**HUIZEN**, 11.0—Records. 11.10—Light Music; Dance Music.  
**KALUNDBORG**, 11.2-11.30—Petersen Dance Band.  
**MADRID** (EAJ7), 11.0—Theatre Relay (contd. from 10.15). In the Interval: News.  
**OSLO**, 11.0—Christmas Programme (contd. from 7.10).  
**PARIS** (PTT), Dance Music.  
**RADIO-NORMANDIE**, 11.0—Records. 11.35—Celebrity Concert.  
**STUTTGART**, 11.0—See Frankfurt.  
**TOULOUSE** (Radio-Toulouse), 11.0—"Le boeuf sous le toit"—Fantasy (contd. from 10.30). 11.15—Orchestra. 11.30—Sound-Film Music. 11.50—Light Music.  
**VIENNA**, 11.5—Records.

12 midnight

**FRANKFURT**, 12.0—"The World in Dance and Song"—Records.  
**MADRID** (EAJ7), 12.0—Theatre Relay (contd. from 10.15).  
**RADIO-NORMANDIE**, 12.0—Dance Music.  
**STUTTGART**, 12.0—See Frankfurt.  
**TOULOUSE** (Radio-Toulouse), 12.0—News. 12.5—Chansonnettes. 12.15-12.30—Viennese Orchestra. Selection, "Schön ist die Welt" (Lehár). Tales from the Vienna Woods (Strauss).

1 a.m. (Saturday)

**RADIO-NORMANDIE**, 1.0—News. 1.10—Dance Music.

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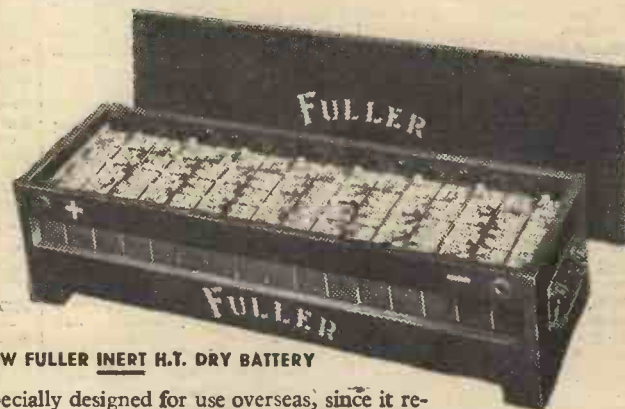
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# SATURDAY December 29

## PRINCIPAL EVENTS

### SYMPHONY CONCERTS

P.M.  
2.0 Kalundborg: Children's concert.  
6.0 Cologne: "Mysterium der Freude" (Ingenbrand).  
7.0 Prague: Czech choral music.  
8.0 Brussels No. 1: Liszt, Mendelssohn, etc.  
8.0 Warsaw: Beethoven.

### LIGHT CONCERTS

A.M.  
11.0 Leipzig, Cologne: Symphony orchestra.  
P.M.  
3.0 Breslau: Station orchestra.  
3.0 Cologne, etc.: Variety concert.  
5.0 Brussels No. 1: Radio orchestra.  
5.0 Strasbourg: Orchestra, violin.  
6.0 Königsberg: Military band.  
6.20 Brussels No. 2: Radio orchestra.  
7.0 Kalundborg: Ballet music.  
7.0 Warsaw: Operetta music.  
7.10 Breslau, etc.: From operettas.  
7.15 Oslo: Light orchestral.  
7.20 Beromünster: Gala concert.  
8.0 Brussels No. 2: Light orchestra, English and American programme.  
8.25 Vienna: Popular orchestral and vocal.  
9.15 Kalundborg: English and American.  
9.20 Budapest: Cigány band.  
9.30 Prague: Light orchestra.  
10.25 Huizen: Light music.

### OPERA

P.M.  
8.0 Turin, etc.: "Francesca" (Zandonai).

### OPERETTAS

P.M.  
7.10 Munich: "The Czarevitch" (Lehár).  
7.40 Sottens: "The Merry Widow" (Lehár).  
8.0 Radio-Paris: "La petite Chanson des hommes," Musical Comedy (Clergue).

### CHAMBER MUSIC

P.M.  
5.0 Hamburg: String quartet movements.  
6.0 Berlin: Paul Graener songs and trio.  
6.5 Leipzig: String quartet (Mozart).  
7.0 Sottens: Wind quintet (Skerjanc).

### RECITALS

P.M.  
4.30 Budapest: Hungarian songs.  
5.15 Leipzig: Folk-music.  
5.15 Warsaw: Violin.  
5.30 Königsberg: Vesper music, organ.

### PLAYS

P.M.  
8.30 Lyons, Paris (PTT): Guignol revue.  
8.30 Strasbourg: Four Christmas plays.

### TALKS

P.M.  
6.40 Beromünster: "Grimm Fairy Tale Collector."  
6.55 Stockholm: "Christmas in Greenland"

### DANCE MUSIC

P.M.  
3.0 Königsberg; 4.0, Warsaw; 7.0, Bucharest; 8.0, Budapest; 8.40, Beromünster; 8.45, Monte Ceneri; 9.0, Poste Parisien, Stockholm; 9.15, Warsaw; 9.30, Breslau, etc.; 9.45, Munich, Oslo; 10.0, Kalundborg; 10.10, Brussels Nos. 1, 2; 10.30, Radio-Paris, Strasbourg; 11.0, Hamburg, Paris (PTT), Stuttgart, Frankfurt.

### MISCELLANEOUS

P.M.  
7.10 Berlin: Variety evening.  
7.15 Frankfurt, Stuttgart: Variety.  
7.15 Hamburg: "Wireless Variety."  
9.25 Bucharest: Cabaret.  
9.30 Paris (PTT): Revue.

### NATIONAL

For Time Signals, see Monday  
10.15 a.m. (Droitwich)—Service.  
10.30 (Droitwich)—Weather-Forecast.  
10.45—Miscellaneous Records.  
11.45—B.B.C. Northern Orchestra.  
Donald Edge (Piano-forte).  
1.0 p.m. (Droitwich)—Cammodore Grand Orchestra.  
2.0 (Droitwich)—Midland Orchestra.  
3.0 (Droitwich)—Cinema Organ.  
3.30 (Droitwich)—Belfast Wireless Orchestra. William Carson (Baritone).  
4.30 (Droitwich)—Frank Titterton (Tenor); Peggy Cochrane (Violin).  
4.30-5.0 (London)—Television.  
5.0—The B.B.C. Dance Orchestra.  
6.0—"The First News."  
6.25—Interlude.  
6.30—Sports Talk. "Nineteen Thirty-Four." Howard Marshall.  
6.45 (Droitwich)—Welsh Interlude. E. M. Humphreys, M.A.: "1934—A Retrospect."  
6.45 (ex. Droitwich)—Alice Vaughan (Contralto).  
7.0—"In Town To-night."  
7.30—Hanwell Silver Band. Billy Mayerl (Piano-forte). Band: March (A Moorside Suite) (Holst); Selection, Other Days (arr. Gordon Mackenzie). Billy Mayerl: The Joker, Fascinating Ditty (Mayerl); Two cigarettes in the dark (Pollack and Webster). Band: The Severn Suite (Elgar). Billy Mayerl: Mistletoe, Carminetta, Ace of Hearts (The Four Aces Suite) (Mayerl). Band: The Kiltie's Courtship (Mackenzie); Selection, Chu Chin Chow (Norton).  
8.30—Music-Hall. Les Allen with his Melody Four. The Lloyd Family (Alice, Rosie, Daisy, and Marie, Jnr.). Wilkie Bard. Mabel Marks. Clapham and Dwyer. Tod Slaughter and Co. The Dancing Daughters (trained by Miss Rosalind Wade). B.B.C. Variety Orchestra, directed by Keane Kelley.  
9.30—"The Second News."  
10.0—Organ Recital by Maurice Vinden, relayed from the Concert Hall, Broadcasting House.  
10.45—"Lays of Ancient Rome"—"The Armada," by Macaulay. Read by Ronald Watkins.  
10.50 (Droitwich)—Dance Records.  
11.0-12.0 (Droitwich)—Dance Music Ambrose and his Embassy Club. Orchestra.

### REGIONAL

For Time Signals, see Monday  
10.15-10.45 a.m. (except Midland)—Droitwich.  
10.45—Scottish Studio Orchestra.  
11.45—Cinema Organ.  
12.15 p.m.—Light Records.  
1.0-5.0 (ex. Midland)—Droitwich.  
4.30-5.0 (Midland)—Television.  
5.0—The Children's Hour.  
6.0—"The First News."  
6.30 (London, North, Scottish)—Sydney Baynes and his Band.  
6.30 (Midland)—Dance Music.  
6.30 (West)—Records.  
6.30 (Belfast)—Echoes of Ulster.  
6.45 (West)—See Droitwich.  
6.50 (Belfast)—Frank Rea and his Orchestra.  
7.0 (West)—Swindon G.W.R. Male Choir.  
7.20 (Midland)—"Out and About."  
7.20 (Scottish)—Account of Airdrieonians v. St. Johnstone.  
7.30 (Scottish, London)—Scottish Orchestra. Percy Hemming (Baritone).  
7.30 (North)—"Owt abait Owt."  
7.30 (Belfast)—Topical Talk.  
7.30 (West)—A Welsh Fantomime.  
7.40 (Midland)—"Dick Whittington and his Cat," relayed from the Futurist Theatre, Birmingham.  
7.45 (Belfast)—Variety.  
8.0 (North)—Programme Diary.  
8.15 (North)—"The Marleys of Tyneside."  
8.30—"Here are Prophets." J. L. Hodson; R. A. Watson Watt; Madge Garland (Fashion Editor of Vogue); Sir Malcolm Campbell, M.B.E.; Geoffrey Crowther; Ritchie Calder; C. W. A. Scott; R. H. Naylor.  
9.0 (London)—Orchestra (Section C).  
9.0 (Midland)—Jack Wilson and his Versatile Five.  
9.0 (North)—Elgar Programme. Huddersfield Glee and Madrigal Society. Northern Orchestra.  
9.0 (Scottish)—"Week in Scotland."  
9.0 (Belfast)—"Money for Nothing"—a preposterous comedy.  
9.0 (West)—Records.  
9.15 (Scottish)—Studio Orchestra. Marie Thomson (Soprano).  
9.25 (West)—Scenes from "Bethlehem"—a Nativity Play.  
10.0—News Summary.  
10.10 (Midland from 10.25)—Ambrose  
10.15 (Midland)—Topical Talk.  
10.40 (Midland till 10.50)—Records.  
11.0-12.0 (ex. Midland)—Ambrose.

Hours of Transmission in Greenwich Mean Time.

### 5 a.m.

BERLIN, 5.0—Hymn. 5.15—Gym. 5.30—Weather; Prayers. 5.35—See Königsberg.  
BEROMÜNSTER, 5.30-5.50—Gym.  
BRESLAU, 5.0—Time; Weather; Gym. 5.25—Hymn; Motto. 5.35—Orchestra. Conductor: Topitz.  
BUDAPEST, 5.45—Gym; Records.  
COLOGNE, 5.0—Hymn; Records. 5.45—Gym.  
DEUTSCHLANDSENDER, 5.0—Weather. 5.5—News. 5.15—Gym. 5.30—Motto. 5.35—Records.  
FRANKFURT, 5.0—For Farmers. 5.15—Gym. 5.45—News. 5.50—Weather. 5.55—Motto; Hymn.  
HAMBURG, 5.0—Time; Weather; Market Prices. 5.15—Gym. 5.30—Time; Weather. 5.35—See Königsberg.  
KÖNIGSBERG, 5.15—Gym. 5.35—Wind Band. Conductor: Stieberitz.  
LEIPZIG, 5.5—For Farmers. 5.15—Gym. 5.35—See Königsberg.  
MUNICH, 5.30—Gym. 5.45—Time; Weather; News. 5.55—Motto.  
PRAGUE, 5.15—Chimes; Gym; Music; News.  
STUTTIGART, 5.0—For Farmers; Weather. 5.10—Hymn; Motto. 5.15—Gym. 5.30—Time; Weather; News. 5.45—Gym.  
WARSAW, 5.45—A Carol. 5.48—Records. 5.52—Gym.

### 6 a.m.

BERLIN, 6.0—News. 6.15—See 5.35 Königsberg.  
BRESLAU, 6.0—Time; Weather; News. 6.15—Orchestra (contd. from 5.35).  
BUDAPEST, 6.0—Records.  
COLOGNE, 6.0—Hymn; Time; Weather; News. 6.15—See Breslau.  
DEUTSCHLANDSENDER, 6.0—News. 6.10—Records.  
FRANKFURT, 6.0—See Stuttgart.  
HAMBURG, 6.0—Time; Weather; News. 6.15—See 5.35 Königsberg.  
KALUNDBORG, 6.0—Gym.

KÖNIGSBERG, 6.0—News. 6.15—Wind Band (contd. from 5.35).  
LEIPZIG, 6.0—News. 6.15—See 5.35 Königsberg.  
MUNICH, 6.0—See Stuttgart.  
PARIS (Radio-Paris), 6.45—Gym.  
ROME, 6.45—Gym.  
SOTTENS, 6.0-6.15—Gym.  
STOCKHOLM, 6.20—Gym. 6.45—Service.  
STUTTIGART, 6.0—Records.  
TURIN, 6.45—Gym.  
WARSAW, 6.0—Gym. 6.7—Records. 6.15—News. 6.25—Records. 6.35—For Housewives. 6.40—Programme Announcements. 6.50—Light Music.

### 7 a.m.

BERLIN, 7.0—Gym. 7.20—Physical Culture.  
BRESLAU, 7.0—Orchestra (contd. from 5.35).  
BUDAPEST, 7.0—Records.  
COLOGNE, 7.0—Water Level. 7.5—See 5.35 Breslau. 7.30—Time; Weather. 7.35—Gym for Women. 7.50—Talk.  
DEUTSCHLANDSENDER, 7.45—Gym for Women.  
FRANKFURT, 7.0—See Stuttgart. 7.10—Water Level; Weather. 7.15—Gym.  
HAMBURG, 7.0—Cookery Hints. 7.10—Announcements; Records.  
HILVERSUM, 7.40—Records.  
HUIZEN, 7.40—Records.  
KALUNDBORG, 7.30—Cathedral Service.  
KÖNIGSBERG, 7.0—Prayers. 7.30—Gym.  
LEIPZIG, 7.0—Gym.  
MUNICH, 7.0—See Stuttgart. 7.15—Gym. 7.35-7.45—For Housewives.  
PARIS (Poste Parisien), 7.10—Fanfare; Records. In the Interval: News.  
PARIS (Radio-Paris), 7.0—Records. 7.15—Press Review. 7.45—Gym.  
RADIO-NORMANDIE, 7.0—Records. 7.20—News. 7.45—Records. 7.48—Racing. 7.50—Record. 7.53—Cookery.  
ROME, 7.0—Time; News; For Housewives.  
STUTTIGART, 7.0—Records. 7.15—Gym for Women. 7.30—Weather; Water Level.  
TURIN, 7.0—Time; News; For Housewives.

### 8 a.m.

BRESLAU, 8.0—Time; Weather; News. 8.15—Records. Talk in the Interval.  
DEUTSCHLANDSENDER, 8.40—Sports Notes.  
FRANKFURT, 8.0—News. 8.15—Schmidt-Carlen (Baritone), Anita Sievert (Soprano), Stoll (Baritone), Friedrich (Piano-forte).  
HILVERSUM, 8.0—Records.  
HUIZEN, 8.0—Records.  
PARIS (Poste Parisien), 8.0—Records. In the Interval: News. 8.45—Cookery Talk.  
PARIS (PTT), 8.0—News.  
PARIS (Radio-Paris), 8.0—Records.  
PRAGUE, 8.50—News.  
RADIO-NORMANDIE, 8.0—Records. 8.15—Dance Music.  
TOULOUSE (Radio-Toulouse), 8.0—Dance Refrains. 8.30—News. 8.35—Orchestra. Songs.  
VIENNA, 8.0—News. 8.20—Markets. 8.30—Weather.

### 9 a.m.

BERLIN, 9.0—Weather; News. 9.30—Records; Announcements.  
BRESLAU, 9.45—For Children.  
BUDAPEST, 9.0—Announcements. 9.20—Talk. 9.45—Reading.  
COLOGNE, 9.0—Time; News; Water Level. 9.10—For Children. 9.30—Topical Talks.  
DEUTSCHLANDSENDER, 9.0—News. 9.50—For Children.  
FRANKFURT, 9.0—News.  
HAMBURG, 9.50—News.  
HILVERSUM, 9.0—Records. 9.40—Religious Programme. 9.55—Concert for Workers; Orchestral Music; Records.  
HUIZEN, 9.40—Records.  
KÖNIGSBERG, 9.40—News.  
LEIPZIG, 9.0—Economic Notes; Announcements; Weather; Water Level.  
MORAVSKÁ-OSTRAVA, 9.15—The National Guards' Band. Conductor: Prochazka.  
MOSCOW (No. 1), 9.0—News.  
MUNICH, 9.50—Markets.  
PRAGUE, 9.5—News in German. 9.10—Records. 9.15—See Moravská-Ostrava. 9.50—Reading.

STUTTIGART, 9.0—News. 9.15—Sonata in F, for two Piano-fortes (Wilhelm Friedemann Bach). 9.30—Old Folk Songs by Hedwig Piscalar (Soprano). 9.45—Scandinavian Music. Hilde Keefer-Bluthardt (Soprano), Erich Schmale (Violin), Walter Grossmann (Violin), Erich Herrmann (Soprano) and Fritz Ries (Organ). Soprano Solos with Trio accompaniment: Swedish Folk Melodies. Violin and Organ Duets: (a) "Sarabande (Aulin), (b) Air (Aulin). Andante sostenuto, Violin Sonata (Sjögren).

### 10 a.m.

BELGRADE, 10.0—Records.  
BERLIN, 10.0—Exchange.  
BRESLAU, 10.0—For Children. (contd. from 9.45). 10.30—Time; Weather; News; Water Level.  
COLOGNE, 10.30—Records; Announcements.  
DEUTSCHLANDSENDER, 10.0—For Children. 10.30—Talk: Fabulous Creatures. 10.40—Talk: The History of Horticulture. 10.50—Greetings.  
FRANKFURT, 10.0—Concert. 10.30—Announcements.  
HAMBURG, 10.0—Records. Waltz, Wintersjürme (Fučík). Foxtrot, Sprühregen (Jäger). Waltz, Whirlwind (Peguri). Foxtrot, Schneeflocken (Rawicz). Stormy Weather (Kochler). Sunshine always follows the Rain (Gay). Waltz, The Skaters (Waldteufel). Morgenwind (Bochmann). 10.30—See Königsberg.  
HILVERSUM, 10.0—Concert (contd. from 9.55).  
HUIZEN, 10.0—Records. 10.10—Concert. 10.40—Records.  
KALUNDBORG, 10.0—Weather. 10.10—Fish Prices. 10.15—For Schools: Christmas in Copenhagen.  
KÖNIGSBERG, 10.0—News. 10.5—For Farmers. 10.30—Small Station Orchestra. Conductor: Wilken. Attila-Marsch (Fučík). Norwegian Dances (Grieg). Selection, "Alessandro Stradella" (Flotow). Delirien-Walzer (Strauss). Two Pieces (Sibelius): (a) Ballad, (b) Die Glocken. Ballet Music, "King Manfred" (Reinecke). Overture, "The Mikado" (Sullivan).

LEIPZIG, 10.0—Records; Announcements. 10.30—News; Time; Weather. 10.45—For Farmers.  
MUNICH, 10.0—Talk: Sports and Games for Country Boys. 10.20—Time; Weather; News. 10.30—Records; Announcements.  
OSLO, 10.15—Service. 10.50—Exchange.  
PRAGUE, 10.0—Record. 10.5—Quartet. 10.55—For Farmers.  
RADIO-NORMANDIE, 10.0—Symphony Concert.  
STRASBOURG, 10.45—Cotton Exchange; Records.  
STUTTIGART, 10.0—Scandinavian Music (contd. from 9.45). 10.15—Records. 10.45—Weather; For Farmers.  
TURIN, 10.30—Records.  
VIENNA, 10.30—Talk for Women. 10.55—Weather.  
WARSAW, 10.57—Time. 11.0—Fanfare; Announcements.

### 11 a.m.

BELGRADE, 11.0—Station Orchestra. In the Intervals: Announcements.  
BERLIN, 11.0—See 10.30 Königsberg.  
BEROMÜNSTER, 11.0—Records.  
BRATISLAVA, 11.0—For Farmers. 11.10—Local News in Slovak. 11.15—Records. 11.35—Station Orchestra. Conductor: Schimpl. Overture (Balling). Selection (Smatek). Polka and March (Pucovec). Slovak Potpourri (Malý). Volksliedchen und Märchen (Komzak). March (Vackár).  
BRESLAU, 11.0—See Leipzig.  
BRUSSELS (No. 2), 11.57—Weather.  
BUCHAREST, 11.0—Water Level. 11.5—Records. 11.45—Amusement Guide.  
BUDAPEST, 11.0—Chimes. 11.5—The Bachmann Quintet. In the Interval at 11.30—News.  
COLOGNE, 11.0—See Leipzig.  
DEUTSCHLANDSENDER, 11.0—See Leipzig.  
FRANKFURT, 11.0—See Leipzig.  
HAMBURG, 11.0—Market Report; Time, Weather, Shipping. 11.15—See 10.30 Königsberg.  
HILVERSUM, 11.0—Concert (contd. from 9.55). 11.40—Records. 11.55—

11 a.m. (contd.)

—Orchestra. Conductor: Steyn. Piece (Gangberger). Frag' nicht, frag' nicht (May). The House is Haunted (Rose-Adlam). Two Pieces (Rey). Selection, "Der Jux Baron" (Kollo).

HUIZEN, 11.0—Records. 11.10—Religious Address. 11.40—Police Notes. 11.55—Records.

KALUNDBORG, 11.2—Bendix String Ensemble.

KÖNIGSBERG, 11.0—Orchestra (contd. from 10.30).

LEIPZIG, 11.0—Light Music. Leipzig Symphony Orchestra. Conductor: Hilmar Weber. Overture, "Zampa" (Hérold). Three Pieces, "Dornröschen" (Kienzl). Introduction and Wedding Procession, "Le Coq d'or" (Rimsky-Korsakov). Hungarian Dances (Brahms). Waltz-Entr'acte, "Donna Diana" (Reznick). Rhapsody (Wilhelm Hartung). Waltz Fantasia (Glinka). Prelude, "Die Abreise" (d'Albert).

MONTE CENERI, 11.0—Announcements. 11.5—Orchestra. Hungarian March (Fahrbach). Waltz, Die Kossenden (Lanner). Overture, "Das Meisel" (Suppe). The Gay Postillon (Pesse). Schubert Potpourri (Foulds). Selection, "Don Giovanni" (Mozart). In the Interval at 11.29: Time; Weather. 11.55—News.

MUNICH, 11.0—Records. Schneidige Truppe (Lehnhardt). Overture, "Poet and Peasant" (Suppe). Two Modern Dance Songs: (a) Weil ich dich liebe (Amberg), (b) Lieblich mit dem blonden Haar (Balz). Potpourri of Waltzes (Robrecht) So etwas wie sie (Leux). Duet, "The Gipsy Baron" (Strauss), Duet, "Der Rastelbinder" (Lehár). Humpty-Dumpty (Pörschmann). Zur Lieb gehört ein Häuch Romantik (Söhnker). Dolores (Walteufel). Mozart Potpourri (Urbach). Song, "The Daughter of the Regiment" (Donizetti). Two Songs: (a) Ich hatte einst ein schönes Vaterland (Lassene), (b) Deutschland blühe (Meyer-Helmund). Wallberger Ländler. Marsch der freiwilligen Jäger (Hackenberger).

PARIS (PTT), 11.0—Concert.

PRAGUE, 11.0—Time; Talk for Farmers. 11.10—Records. 11.25—News. 11.35—See Bratislava.

RADIO-NORMANDIE, 11.0—Concert. 11.30—Monologues.

ROME, 11.30—Records.

SOTTENS, 11.30—News. 11.40—Records.

STOCKHOLM, 11.45—Exchange.

STRASBOURG, 11.0—Orchestra.

STUTTGART, 11.0—See Leipzig.

TURIN, 11.0—Records. 11.45—News.

VIENNA, 11.0—Records from the Exhibition Studio. Overture, "La belle Hélène" (Offenbach). Chopin Potpourri (Melichar). Aria, "Norma" (Bellini). Song, Seguidilla, Violin Solo: Serenata (Toselli). Triumphant March, "Aida" (Verdi). Marja Nina (Theimer). Potpourri of Polkas (Lindemann).

WARSAW, 11.5—Press Review. 11.10—Rachon Orchestra. Waltz Moonlight on the Alster (Fetras). Tango (Sperino). Potpourri (Dostal). French Serenade (Leoncavallo). Gipsy Dances (Nachsz). Spanish Waltz (May). Hungarian Dance (Brahms).

12 noon

ALGIERS, 12.30—Station Orchestra. De Weike des Haves (Beethoven). La Roussotte (Hervé). Ballet Suite (Grandjean). Becuse (Vallaury). Romance (Tchaikovsky). Piece (Tchesnokov). Sous la feuillée (Thomé). Délices (Ganne).

BARCELONA, 12.0—Chimes; Programme for Women. 12.45—Records.

BELGRADE, 12.0—News. 12.15—Songs. 12.40—Press Review.

BERLIN, 12.0—Mid-day Echoes. 12.15—Dance Records. Verschmähte Liebe (Lincke). Polka Potpourri (Lindemann). Micaeli (Schmidseder-Busch). Typhoon (Glongib). Mein Lebenslauf ist Lieb und Lust (Strauss). Die Siebenschläfer (Heinz-Markgraf). Im Hamburg an der Alster (Krome). Elipost (Kletsch). Mädel dreh dich mit mir (Schon-Schoppe). Frauenherz (Strauss). Ich bin ein armer kleiner Musikant (Rüst).

BEROMÜNSTER, 12.25—Weather; Exchange. 12.30—Parliamentary Review. 12.45—Wireless Notes.

BRATISLAVA, 12.0—Orchestra (contd. from 11.35). 12.45—News in German and Hungarian.

BRESLAU, 12.0—Records. 12.15—Time; Weather; News. 12.30—Records. Warum bist du so allein (Kollo). Kommt einst das Glück zu dir (Rust). Two Pieces (Doelle): (a) Liebe ist kein Geheimnis, (b) Ohne Dich gibts kein Vergnügen. Und die ganze Welt spricht von Nanette (Grothe). Ich glaub dem Glück heut begegnet zu sein (Böhmel). Es dreht sich alles nur im Leben um die Liebe (Böhmel). Vielleicht wars nur ein Traum (Doelle). Wir, wolla mal wieder bummeln gehn (Doelle).

BRUSSELS (No. 1), 12.0—Records. Polonaise, "Eugène Onegin" (Tchaikovsky). Aria, "Werther" (Massenet). Waltz, "Der Rosenkavalier" (Strauss). Aria, "Quo Vadis" (Nougues). Reflets d'Allemagne (Schmitt). Aria, "The Damnation of Faust" (Berlioz). 12.30—Orchestra. Ballet, "La Cigale" (Massenet). Finlandia (Sibelius). Liebestraum (Liszt). Ballet, "The Two Widows" (Smetana).

BRUSSELS (No. 2), 12.0—Records. Infantry March (Mees). Selection, "The Land of Smiles" (Lehár). Petite Mimi (Alexandre). Valse de la reine (Alexandre). Schön ist jeder Tag, den du mir schenkst, Marie-Luise (Meisel). Sound Film Music (Brookhouse). Pardon Madame (Abraham). Tiger Rag (La Rocca). 12.30—Orchestra. Conductor: Douliez. Potpourri of Offenbach Music (Conradi). Waltz, "Wiener Blut" (Strauss). Selection, "Tosca" (Puccini).

BUCHAREST, 12.0—Light Music (on Records). 12.15—News. 12.40—Light Music (on Records).

BUDAPEST, 12.0—The Bachmann Quintet. 12.30—Concert.

COLOGNE, 12.0—News; Greetings. 12.15—Military Band. Conductor: Warwas. Victoria-March (Neumann). Parade March, Prinz Albert von Preusser (Lehnhardt). Alexander-March (Lehnhardt). March, Prinzessin Charlotte von Sachsen-Meinungen. Parade March in B flat (Lorenz). Parade March. Défilier-March (Faust). Pepita-March (Neumann). Königgrätzer-March (Piefke).

DEUTSCHLANDSENDER, 12.0—Records. 12.45—News.

FRANKFURT, 12.0—See Stuttgart. 12.15—Records. Solang der Wirt noch Bier im Fass (Otten-Ebeler). Beim Bockbierfest, da ist so fidel (Heim). Im Wirtshaus zur roten Laterne (Larsen). Beim Studentenkommers (Kömm). Nachtschwärmer (Ziehrer). Im Krug zum grünen Kranze. Beim Kronewirt. Im Wirtshaus (Simlinger). Feste ran, heut kann uns nichts passieren (Humbach). Wir woll'n mal wieder bummeln geh'n (Doelle). Hallo, little Girl (Lesso-Valerio). Good-night, lovely little Lady (Warren). Du brauchst bei mir nur anzurufen (Kirchstein). Heute abend bei mir (Böhmel). Mir hat ein Mädchen heut geträumt (Müller). Ach wie schön ist es, verliebt zu sein (Engelberger). Bei einem Tee en deux (Lehár). Wir wollen Freunde sein fürs ganze Leben (Meisel). Auf Wiederseh'n Baby (Leux).

HAMBURG, 12.0—Exchange. 12.15—Weather. 12.20—Music.

HILVERSUM, 12.0—Orchestra (contd. from 11.55). 12.25—Orchestra. Concert. Conductor: van der Horst. Verschmähte Liebe (Lincke). Roses of Picardy (Haydn-Wood). Two Spanish Dances (Moszkowski). The Lär Potpourri (Hruby). 12.55—Fantasia (d'Indy) by Blez (Oboe) and Schoute (Pianoforte).

HUIZEN, 12.0—Records.

JUAN-LES-PINS (Radio Côte d'Azur), 12.15—Concert. In the Interval: Film Review.

KALUNDBORG, 12.0—Bendix String Ensemble.

KÖNIGSBERG, 12.1—Time; Weather. 12.5—Records; Light Music. Festjubil-Marsch (Blankenholz). March, Blaze of Glory (Holzmann). Selection, "Der arme Jonathan" (Millöcker). Hofballtänze (Lanner). Donausagen (Fucik). Wiener Bonbons (Strauss). Komm in die Gondel (Strauss). Walchenseer Trompetenländler,

Kirchdorfer Ländler. On the Rhine with Willi Ostermann. Two Pieces (Bayr): (a) Mein liebster Tanz, (b) Ein flotter Tänzer. Selection, "Wiener Blut" (Strauss). Waltz-Potpourri: Feuerfest (Strauss). Bahnfrei (Strauss).

LEIPZIG, 12.0—News; Time 12.10—Records: German Music. Potpourri, Auf Fahrt und Walz. Vocal Quartet: Mein Vogtland (Max Stark). Schlussus: An der Weser (Pressel). Song and March, Märkische Heide. Double Quartet; Riesengebirgers Heimatlied (Hempel). Duet: Mein schönes Garmisch Schlussus: Song, Am Rhein (Humperdinck). Song, Auf der Lüneburger Heide (Löns). Hans Schmitt: Song, Masurenlied (De-wischeit). Ulmer Fischermarsch (Gössler).

LYONS (La Doua), 12.0—News; Amusement Guide. 12.15—Thevenin Orchestra. Overture, "Les dragons de Villars" (Maillart). Roses of the South (Strauss). Andalusian Romance (Sarasate). Selection, "Le petit duc" (Lecocq). "Les millions d'Arlequin" (Drigo). Two Pieces (Rabaud): a Complainte, b Caravane. Selection, "La mascotte" (Audran). Melody (Lalo). Waltz in A (Brahms). Extracts, "The Nuremberg Doll" (Adam). Pensée d'automne (Massenet). Selection, "I Pagliacci" (Leoncavallo). Rhapsody (Liszt). Fête de Noël (Tchaikovsky). Potpourri of Old French Airs and Songs (Broustet). Scottish Cradle Song (Schwab). Arab Dance (Volpatti). Rose mousse (Bosc). La roussotte (Hervé-Lecocq).

MONTE CENERI, 12.5—Records. 12.50—Hints for Housewives.

MUNICH, 12.0—Records (contd. from 11.0). 12.15—Time; Weather; News. 12.25—Station Orchestra. Conductor: Kloss. Music by Zimmer (Yoshitono). Overture, Vivat Academia. Japanese Lantern Dance. Max und Moritz. Watteau-Suite. Die Marzipanpuppe.

OSLO, 12.0—Records. In the Interval: Weather; For Farmers; Exchange.

PARIS (Poste Parisien), 12.0—News. 12.5—Records. 12.25—News. 12.35—Station Orchestra.

PARIS (PTT), 12.0—Tourist Report. 12.15—Clergue Orchestra. Selection, "Les Mousquetaires au Couvent" (Varney). Jabots et dentelles (Cuvillier). Bohemian Romance (Boldi). The Wedding of the Rose (Franck). Song (Grieg). Petite maison grise (Lohr). Mattinata (Leoncavallo). Song, "The Land of Smiles" (Lehár). Waltz (Messenger). Selection, "The Love Parade" (Scherzinger).

PARIS (RADIO-PARIS), 12.0—Symphony Concert. Conductor: Letombe. March and Procession, "The Queen of Sheba" (Gounod); Elegy, "La Reine Fiammette" (Leroux). Overture, "Le Châlet" (Adam). Fête alsacienne (Missa). Dans le bois (Montagne). Divertissement (Lalo). Symphonic Poem, Le Rouet d'Omphale (Saint-Saëns). Overture, "Athalia" (Mendelssohn). Suite funambulesque (Massenet). Prelude, "Werther" (Massenet). Clair de lune, "Werther" (Massenet). Overture, "The Nuremberg Doll" (Adam). Moroccan Suite, Un soir à Tanger (Lacôme). Waltz, Les brunes (Ganne).

PRAGUE, 12.0—See 11.35 Bratislava. 12.35—Industrial Review. 12.45—Records. 12.55—Exchange.

RADIO-NORMANDIE, 12.0—Songs. 12.30—Press Review. 12.45—Request Programme.

ROME, 12.0—Time: Announcements. 12.5—Light Music. Waltz, L'amore sei tu (Billi). The Japanese Screen (Ketelbey). Overture, "Sicilian Vespers" (Verdi). Voci amate e cantate (Nardella). Selection, "Consalvo" (Azzoni). Foxtrot, Fired out. Sogno (d'Ambrosio). Tired out, Susanna. In the Interval at 12.35: News.

SOTTENS, 12.0—Records.

STRASBOURG, 12.0—Orchestra. Seiler (Violin). March (Kalkman). Waltz, "Eva" (Lehár). Selection, "Le petit duc" (Lecocq). Violin Solo. March (Swies). 12.30—News. 12.45—Records.

STUTTGART, 12.0—Time: Local News. 12.5—News; Weather. 12.15—See Frankfurt.

TOULOUSE (Radio-Toulouse), 12.0—Operetta Music. 12.15—Chansonnettes. 12.30—News. 12.45—Request Music.

TURIN, 12.0—Time; Announce-

ments. 12.5—Malatesta Chamber Orchestra. In the Interval at 12.35: Records; Exchange.

VIENNA, 12.0—Time; Weather; News; Announcements. 12.10—Records from the Exhibition Studio. "Cello Concerto Op. 104 (Dvořák).

WARSAW, 12.0—News. 12.5—Records: Jack Hylton's Band.

1 p.m.

ALGIERS, 1.0—Amusement Guide; News. 1.15—Orchestra (contd. from 12.30).

ATHLONE, 1.30—Time; Weather; Records.

BARCELONA, 1.0—Records. 1.30—Theatre Notes; Amusement Guide; Records.

BERLIN, 1.0—Weather; News; Water Level. 1.15—Records. Violin Solo: Salut d'amour (Elgar). "Cello Solos: (a) Mazurka (Popper), (b) Vito (Popper). Waltz (Brahms).

BEROMÜNSTER, 1.0—Orchestra. 1.30—Book Review.

BRESLAU, 1.0—Records (contd. from 12.30). 1.5—Exchange. 1.10—Records; Announcements. 1.35—Greetings. 1.40—Market Prices.

BRUSSELS (No. 1), 1.0—News. 1.10—Orchestra. Festklicke (D'Hayer). Mijn moederspraak (Benoit). Valse dolente (De Boeck). Marche commémorative (Gillon). 1.30—Records. Chants russes (Lalo). Pizzicato Polka (Strauss). Arioso, "Le roi de Lahore" (Massenet). Nur wer die Sehnsucht kennt (Strauss). Aria, "Samson and Delilah" (Saint-Saëns). Scene de ballet (de Beriot-Sear). La colonadrina (Serradell). Florentine March (Fucik).

BRUSSELS (No. 2), 1.0—News. 1.10—Orchestra. Conductor: Douliez. Overture, "Le Mulétier" (Hérold). Suite, Juegos (Turina). Tarantella (Coleridge-Taylor). 1.30—Records. Kunz Medley No. 4 (Kunz). Piece (Paoli). Suite, Impressions of Damascus (Kougell): (a) At the Theatre, (b) In the Bazaar. Pianoforte Solos: Kamennoi-Ostrow (Rubinstein). Gardens (Foresythe). Mary (Jack Junior).

BUDAPEST, 1.40—For Housewives.

COLOGNE, 1.0—News. 1.15—Records.

DEUTSCHLANDSENDER, 1.55—Programme Announcements.

FRANKFURT, 1.0—Records (contd. from 12.15). 1.15—News. 1.30—Reports and Discussions on Economics. 1.50—Exchange; Weather.

HAMBURG, 1.0—Music. 1.15—News. 1.30—Records. Gingerbread Waltz, "Hansel and Gretel" (Humperdinck). Waltz, Schlagobers (Strauss). Dance of the Sugar Plum Fairy, "The Nutcracker Suite" (Tchaikovsky). Waltz, Wiener Bonbons (Strauss). Songs, Mehlspies (Benatzky). Turkish Honey (Mac-eben).

HILVERSUM, 1.0—Fantasia (d'Indy) (contd. from 12.55). 1.10-1.40—Orchestra. Conductor: v.d. Horst. Serenade, Clair de lune (Moret). Hungarian Serenade (Weesby). Cigány Romance (Boldi). Neapolitan Fantasy (Marchetti). Accelerando-walzer (Strauss). 1.55—Wiggelaar (Violin) and Schoute (Pianoforte). Swedish Dances (Juon). Romance (Wilhelmi). Minuet (Ariosti).

HUIZEN, 1.0—Records. 1.40—Young People.

JUAN-LES-PINS (Radio Côte d'Azur), 1.0—News; Cigány Music.

KÖNIGSBERG, 1.0—Records (contd. from 12.5). 1.30—Exchange.

LEIPZIG, 1.0—News; Exchange; Weather. 1.10—Records. 1.45—For Children.

LYONS (La Doua), 1.0—News. 1.15—Orchestra (contd. from 12.15).

MADRID (EAJZ), 1.0—Weather; Light Music; Talk. 1.30—Sextet. Overture, "Rosamunde" (Schubert). Selection, "Manon Lescaut" (Puccini). Turkish March (Mozart).

MUNICH, 1.0—News; Programme Announcements; Exchange. 1.10—Sports Review. 1.20—"The End of the Year"—Sequence for Young People. 1.45—Chess.

PARIS (Poste Parisien), 1.15—News. 1.19—Station Orchestra.

PARIS (PTT), 1.0—News. 1.15—Orchestra (contd. from 12.45). 1.30—Variety.

PARIS (Radio-Paris), 1.0—Symphony Concert (contd. from 12.0). In the Interval at 1.20: Exchange.

PRAGUE, 1.0—Exchange; Weather in German.

ROME, 1.0—Light Music (contd. from 12.5).

STOCKHOLM, 1.0—Recital by Inga

SATURDAY Dec. 29

Särnström (Pianoforte). Casa von Seth (Violin) and Göta Tollvik and Pelle Ollsson (Songs).

STUTTGART, 1.0—See 12.15 Frankfurt. 1.15—Concert. Alfred Tibursky. Georg Völker, Richard Klöhnhammer and Napoleon Flügel (Flutes). Arthur Hagen (Pianoforte), Hilde Hüfner (Songs to the Lute), Karl Jautz (Tenor) and Ly Breun (Accordion).

TOULOUSE (Radio-Toulouse), 1.0—News. 1.5—Opera Arias. Arias, "The Barber of Seville" (Rossini), "Manon" (Massenet), "Carmen" (Bizet) and "La Bohème" (Puccini). 1.15—Ensemble Music. La lettre de Manon (Gillet). Summer Night. Un peu d'amour (Silesu). Ideale (Tosti). 1.30—Sound Film Music. 1.45—Military Music.

TURIN, 1.0—Orchestra (contd. from 12.5). 1.15—Exchange.

VIENNA, 1.0—Announcements.

2 p.m.

ATHLONE, 2.0-2.30—Records.

BARCELONA, 2.0—Announcements; Film and Theatre Review; Music Notes; Art Notes; Labour Exchange.

BERLIN, 2.0—Exchange; Market Prices. 2.35—"The Old Year's Wallet in the Paperbasket"—Play (Frankska Girsenson).

BRESLAU, 2.0—Market Prices. 2.10—Kopmann (Pianoforte). Fantasia in C Minor (Bach). Three Sonatas (Scriatti). Intermezzo in F Minor (Dohnanyi). Rhapsody in E flat Minor (Dohnanyi). 2.45—Reading (Tempel).

COLOGNE, 2.0—Fairy Play for Children. 2.30—Economic Notes. 2.45—Talk: Giant Ocean Liners.

DEUTSCHLANDSENDER, 2.0—Weather; Exchange. 2.15—Handiwork for Children. 2.40—Talk: Animals in the Zoo and out in the Wilds.

FRANKFURT, 2.15—"The Nation and the Leader"—For Young People (arr. Brockmeier).

HAMBURG, 2.0—Wireless Notes. 2.15—Exchange. 2.40—Shipping and Aviation Notes.

HILVERSUM, 2.0—Violin and Pianoforte (contd. from 1.55). 2.10—Records. 2.25—Orchestra. Conductor: Walis. Piece (Töder). Mehlspies aus einem kleinen Café (Benatzky-Schneider). Das Lercher von Hernalds (Ascher). Schneeflocken (Rawicz). Weisst du, was schön wär, Mariechen (Leopoldi). 2.50—Talk: Astronomy.

HUIZEN, 2.0—For Young People. 2.10—Records. 2.40—For Children.

KALUNDBORG, 2.0—Children's Symphony Concert. Orchestra. Conductor: Henriques (Violin). Ellen Gottschalk (Songs) and Fischer (Pianoforte). Children's Symphony (Rombert). Songs (Henriques). Violin and Pianoforte Duets (Henriques). Violin: Impression on Children's Songs. Children's Symphony (Haydn). Songs (Henriques). Pianoforte: Extracts from The Picture Book, Children's Lyrics and Silhouettes (Henriques) by the Composer.

KÖNIGSBERG, 2.0—Exchange; Market Prices. 2.15—For Children. "The Golden Flute" (Knersch). 2.45—Book Review.

LEIPZIG, 2.0—For Children. 2.25—Review of Periodicals. 2.35—Book Review. 2.45—Economic Notes.

LYONS (La Doua), 2.0—Orchestra (contd. from 12.15). 2.30—Orchestra.

MADRID (EAJZ), 2.0—Announcements: Light Music. 2.30—Sextet. Military March in D (Schubert). La Paloma (Mannfred). Selection, "El barberillo de Lavapiés" (Barbieri).

MOSCOW (No. 1), 2.15—For Children.

MUNICH, 2.0—Chess. 2.15—Dialogue Greeting Cards and Letters. 2.35—Weather; Market Prices. 2.50—Labour Market's.

PARIS (Poste Parisien), 2.0—News.

PARIS (PTT), 2.0—Variety.

PRAGUE, 2.50—Weather. 2.55—Military Band. Conductor: Jan Uhlir. March (Oberthor). Overture, "Orpheus in the Underworld" (Offenbach). Ballet Music, "The Bartered Bride" (Smetana). Piece (Zaic). Waltz, "Potenblut"

SATURDAY Dec. 29

2 p.m. (contd.)

(Nedbal). Polka (Kovarovic) National March (Kuchynka). STOCKHOLM, 2.0—Talk: A Visit to Hollywood. 2.30—Light Music. Tago Broströms Orchestra. Overture, "Djamilah" (Bizet), Kaiser-Walzer (Strauss), Spanish Dance (Moszkowski), Overture, "Samson and Delilah" (Saint-Saëns), Slav Dance No. 10 (Dvořák), Salut d'amour (Elgar), March (Noack). STUTTGART, 2.0—"Everyday Heroes of the Air"—Play about the Life of American Commercial Aviators (Kurt Rasche). TOULOUSE (Radio-Toulouse), 2.0—News; Amusement Guide. VIENNA, 2.0—Weather; Exchange. 2.20—"Crazy Calendar" (Trenk-Treibtsch) from the Exhibition Studio. WARSAW, 2.30—Announcements; Exchange. 2.45—Records.

3 p.m.

BARCELONA, 3.0—For Hospitals. 3.30—Amateurs at the Microphone. BELGRADE, 3.0—Records. 3.30—Talk. BERLIN, 3.0—Hans Raue Orchestra, with the Three Belcantos. Waltz, Die Romantiker (Lanner). Zu einer kleinen Liebele (Richardz), Komödianten (Kark), Serenade (Heykens), Songs by the Three Belcantos. Erstes Tänzchen (Rauls), Intermezzo (d'Albert), Selection, "Wild Violets" (Stolz), Songs by the Three Belcantos. In Merry Company (de Micheli), Ich glaub' an dich (Roland), Waltz, Nordseebilder (Strauss), Songs by the Three Belcantos. Swedish Sketches (Petre), Solinger Schützenmarsch (Blon). BEROMÜNSTER, 3.0—See Monte Ceneri. BRESLAU, 3.0—Station Orchestra. Conductor: Rischka. Introduction to Act III and Bridal Chorus, "Lohengrin" (Wagner), Skizzen (Götze), Was die Quelle singt (Schytte), Three Irish Pictures (John Ansell), Die Schönbrunner (Lanner), Spanish Dance (Sarasate), Weit in die Welt (Röhricht), Selection, "Der Opernball" (Heuberger), Serenade (Prochaska), Scherzo in B flat (Schubert), Dance, "The Pearl Fishers" (Bizet), Ballet Music, "Kassya" (Delibes), March, Vivat Germania (Schicke). BUDAPEST, 3.10—Talk: Handicrafts. COLOGNE, 3.0—Variety. Resi Korfmacher (Soprano); Friedrich Eugen Engels (Tenor), the Six Merry Singers; Curt Baumgarten; the Schrammel Quartet; Leo Eysoldt Orchestra; The Three Merry Boys. DEUTSCHLANDSENDER, 3.0—See Cologne. FRANKFURT, 3.0—See Cologne. HAMBURG, 3.0—See Cologne. HILVERSUM, 3.0—Talk (contd. from 2.50). 3.10—Records. HUIZEN, 3.0—For Children. 3.40—K.R.O. Boys. Conductor: Lustenhouwer. Seine beste Erfindung (Bochmann), Singend, klingend (Stolz), Melody (Warren), Spiel mit dem Feuer (Bochmann), Melody (Leur), Die weissen Wolken wandern (Rust), Viennese Melody (Moreña), Piece (Cowley), Records, My little Geisha (Barney), The Golden Musical-Box (Krome), Moulin rouge (Warren), Waltz (Rust), Salome's Vision (Lampe). KALUNDBORG, 3.0—Symphony Concert (contd. from 2.0). 3.30—Reading. KÖNIGSBERG, 3.0—Börschel Dance Band. LAHTI, 3.0—Records. 3.50—Talk. LEIPZIG, 3.0—Concert. LYONS (La Doua), 3.0—Juan Grau Jazz Band. MADRID (EAJ7), 3.0—News; Light Music. 3.30—Andalusian Rhapsody (Ross) by the Station Sextet. 3.50—Announcements. MONTE CENERI, 3.0—Opera Arias. Nelly Burkhardt, Aria, "Figaro" (Mozart), Aria, "The Magic Flute" (Mozart), Cavatina, "The Barber of Seville" (Rossini), Aria, "Lucia di Lammermoor" (Donizetti), 3.30—Records: Orchestra. Overture, "Semiramide" (Rossini), Overture, "Sicilian Vespers" (Verdi), Selection, "Il paese dei campanelli" (Lombardo-Ranzato), Ex-

tracts, "Il Trovatore" (Verdi), Sanctuary of the Heart (Kettelbey), MOSCOW (No. 1), 3.0—News. 3.30—Communist Party Programme. MUNICH, 3.0—Station Orchestra. Conductor: Kloss. Overture, "Lachendes Leben" (Rust), Aus einem Märchenbuch (Kark), Symphonic Prelude (Trevisio), Im schönen Tal der Isar (Löhrr), Selection, "A Night in Venice" (Strauss), Xylophone Solos, Selection, "The Mikado" (Sullivan), Zigeunersehnsucht (Nicklass-Kempner). PARIS (Poste Parisien), 3.45—News. PARIS (PTT), 3.0—Variety. PARIS (Radio-Paris), 3.0—"Fâcheuses aventures des Cigales et des Cigalons au Pays des Nains"—Sketch for Children. PRAGUE, 3.0—Military Band (contd. from 2.55). 3.40—Talk for Young People by Karel Capek: Language—a Nation's Mind. ROME, 3.30—For Children. 3.55—News; Exchange. SOTTENS, 3.0—See Monte Ceneri. STOCKHOLM, 3.0—Light Music (contd. from 2.30). 3.30—For Children. STRASBOURG, 3.0—Talk: Women and Bargains. 3.15—Talk: Christmas Oratorios. 3.30—Records. STUTTGART, 3.0—See Cologne. TURIN, 3.35—News. 3.45—For Children. VIENNA, 3.0—News. 3.5—Italian. 3.45—Orchestral Records. Overture, "Anacreon" (Cherubini), Concerto in E Minor (Chopin), Der Geburtstag der Infantin (Schreker). WARSAW, 3.0—Records. 3.30—For Children.

4 p.m.

BARCELONA, 4.0—News. BELGRADE, 4.0—Chopin Pianoforte Recital by Mlle. Branka Srskic. Three Mazurkas. Waltz in F minor. Prelude. Nocturne in B. BERLIN, 4.0—Hans Raue Orchestra and the Belcantos Generi (contd. from 3.0). 4.45—Twilight Fancies. BEROMÜNSTER, 4.0—See Monte Ceneri. BRATISLAVA, 4.20—Slovak Folk Songs. 4.45—Review for Workers. BRESLAU, 4.0—Orchestra (contd. from 3.0). BRNO, 4.5—For Children. 4.35—Talk: Friendship. 4.35—Local News. For Housewives. 4.40—For Workers. 4.50—German Transmission: Review of Records. BRUSSELS (No. 1), 4.40—Announcements. 4.45—Talk: Austria. BRUSSELS (No. 2), 4.40—Announcements. 4.45—Talk. BUCHAREST, 4.0—Station Orchestra. BUDAPEST, 4.0—Talk. 4.30—Hungarian Songs by Emma Komlosy and the Rác Cigány Band. COLOGNE, Variety (contd. from 3.0) DEUTSCHLANDSENDER, 4.0—See 3.0 Cologne. FRANKFURT, 4.0—See 3.0 Cologne. HAMBURG, 4.0—See 3.0 Cologne. 4.30—Ludwig Jurgens reads from his new Book—"Unser täglich Brot." HILVERSUM, 4.0—Records. 4.40—Huy (Saxophone) and Schoute (Pianoforte), Valsette (Feinsmith), Liebesfreud (Kreisler), 4.50—Literary Talk. HUIZEN, 4.0—K.R.O. Boys (contd. from 3.40). KALUNDBORG, 4.0—Records. 4.30—Exchange. 4.42—A Poem. 4.45—Talk: Christmas in Sumatra. KÖNIGSBERG, 4.0—Road Report. 4.10—Börschel Dance Band. 4.45—Literary Talk. LAHTI, 4.0—Talk. 4.10—Wind Instrument Quartet. 4.30—Talk. 4.50—News. LEIPZIG, 4.0—Concert. 4.45—A Modern Dictionary. LYONS (La Doua), 4.0—Juan Grau Jazz Band. MONTE CENERI, 4.0—Talk: Skiing in Italian Switzerland. 4.15—Italian Folk Songs. MORAVSKÁ - OSTRAVA, 4.5—Songs. 4.25—Weekly Review. 4.35—Records. 4.45—Local News. 4.50—Records. 4.55—Talk. MOSCOW (No. 1), 4.0—Communist Party Programme. 4.20—Relay from the Grand Opera House. MUNICH, 4.0—Orchestra (contd. from 3.0). 4.30—Talk: Beards. 4.50—"Man and Music"—Sequence III. A Festive Evening with Boys and Girls singing and Dancing. OSLO, 4.0—For Children. PARIS (PTT), 4.0—4.30—Literary Programme. Talk: Mysticism in Literature; Scientific Review.

PARIS (Radio-Paris), 4.0—Exchange. PRAGUE, 4.0—Talk (contd. from 3.40). 4.5—Opera Arias. Hanus Thein (Bass), Arias, "Fidelio" (Beethoven), "The Magic Flute" (Mozart), "Figaro" (Mozart), "The Barber of Seville" (Rossini), "Czar and Carpenter" (Lortzing), 4.25—Talk. 4.35—Records. 4.45—For Farmers. 4.55—Talk for Workers. RADIO-NORMANDIE, 4.0—Dance Music. 4.30—For Children. 4.45—Dance Music. REYKJAVIK, 4.0—Weather. ROME, 4.0—Lottery Results. 4.10—Gemmy Orchestra. 4.55—Weather. SOTTENS, 4.0—See Monte Ceneri. STOCKHOLM, 4.0—Weather. 4.5—Weather Chronicle. 4.20—Records. STRASBOURG, 4.0—See Paris (PTT). 4.30—Records. STUTTGART, 4.0—See 3.0 Cologne. TURIN, 4.0—For Women. 4.10—Dance Music from the Savoia, 4.55—Weather.

Talk; Literary Review. 5.40—Telegraphy Lesson. BRUSSELS (No. 1), 5.0—Radio Orchestra. Conductor: Gason. Selection, "Le Cid" (Massenet), Waltz (d'Amrosio), Serenade (Widor), La Source (Delibes), In the Jungle (Brusselmanns), Selection, "Grisélidis" (Massenet), Celtic Suite (Foulds). BRUSSELS (No. 2), 5.0—For Children. BUCHAREST, 5.0—Time; News. 5.15—Station Orchestra. BUDAPEST, 5.0—Hungarian Songs (contd. from 4.30). 5.40—Letter-Box. COLOGNE, 5.0—Reading (Waldeck). 5.10—Music. 5.30—Talk: Across the Waldeck Uplands. 5.45—Time; Weather; Economic and Sports Notes. DEUTSCHLANDSENDER, 5.0—Sports Review. 5.20—Topical Talk. 5.30—Wireless Announcements. 5.40—Lower Bavarian Folk Music (on Records).

del Popolo (Juel-Frederiksen), Melody (Kettelbey), Ja, am Arlberg ist es lustig (Thomas), Czardas (Grossmann), Finale. KALUNDBORG, 5.0—Talk (contd. from 4.45). 5.15—Talk: Mistletoe. 5.45—Weather. KÖNIGSBERG, 5.0—Literary Talk (contd. from 4.45). 5.15—Market Prices. 5.30—Adolf Schütz (Organ), Choral Studies, on Wer nur den lieben Gott lässt walten (Merkel), Canon and Fugue on Solli ich meinem Gott nicht singen (Flügel), Fantasia on Nun danket alle Gott (Herzogenberg), 5.55—Weather. LAHTI, 5.0—Weather. 5.15—Topical Talk. 5.30—"The Desert Song"—Operetta (Romberg) from the Kansanteatteri. LEIPZIG, 5.0—Talk. 5.15—Folk Music. LYONS (La Doua), 5.0—Concert. MADRID (EAJ7), 5.0—Light Music. MORAVSKÁ-OSTRAVA, 5.0—Talk. 5.5—Czech Songs. MOSCOW (No. 1), 5.0—Opera House Relay (contd. from 4.20). MUNICH, 5.0—"Man and Music"—Sequence (contd. from 4.50). 5.10—For Girls. 5.30—Legal Talk. 5.50—Wireless Notes. OSLO, 5.0—For Children. 5.40—Talk on Economics. PRAGUE, 5.0—Talk (contd. from 4.55). 5.5—German Transmission. Lecture Recital: Three Hundred Years of Pianoforte Music. Langer (Pianoforte); Recitations (Leutels); News. RADIO-NORMANDIE, 5.0—Dance Music. 5.15—Records. 5.45—Light Music. ROME, 5.0—Wheat Markets. SOTTENS, 5.0—For Children. 5.20—Talk for Young People. 5.30—English. 5.45—Talk. STOCKHOLM, 5.0—Records. 5.15—Variety. STRASBOURG, 5.0—Orchestra. Conductor: De Villers. Arnitz (Violin), Festival Suite (Klaas), Violin Concerto (Lalo), Symphonic Poem, A Night on the Bare Mountain (Mussorgsky), Overture, "Phédre" (Massenet). STUTTGART, 5.0—Weekly Sound News. 5.30—Variety. Heinz Mönch Zither Trio and Hans Thaler (Accordion). TURIN, 5.0—Wheat Markets; Lottery Results. VIENNA, 5.5—Monthly Review of World Affairs. 5.30—Report from Ebensee: A Visit to the Cribbs. WARSAW, 5.0—For Farmers. 5.10—Talk: Art. 5.15—Kochánski (Violin), Concerto in E minor (Nardini), Chanson (Manen), Old Viennese Dance (Kreisler), Berceuse georgienne (Friedmann), Papillons (Fauré), 5.45—Talk: Work in Soviet Russia.

6 p.m.

ALGIERS, 6.0—Orchestra. 6.15—Songs. 6.30—Talk: Photography. 6.45—Exchange. 6.55—Weather. ATHLONE, 6.0—Records. 6.45—News. BARCELONA, 6.0—Request Records. BARI, 6.15—Weather; News in Foreign Languages. BELGRADE, 6.0—Songs. 6.15—News. 6.30—National Programme. BERLIN, 6.0—Paul Graene Recital, Rudolph Schmidt Trio and Marianne Neubert (Contralto), Six Längs Lieder (a) Verloren, (b) Das bitterste Lied, (c) Der König, (f) Erwartung, (e) Männertrou, (f) Königin, Trio for Pianoforte, Violin and Celio. 6.40—Evening Echoes. BEROMÜNSTER, 6.0—Chimes from the Zürich Churches. 6.15—Weather; Markets. 6.20—Records for Children. 6.40—Talk: Wilhelm Grimm, the Fairy Tale Collector. BRATISLAVA, 6.10—Josef Vasica Jazz Band. BRESLAU, 6.0—Chimes. 6.5—"Meister Mühsam"—Sketch (Paul Majunke-Lange). 6.15—Programme Announcements; Records. 6.40—Weekly Review. BRNO, 6.10—Love Songs (Dvořák) by Cervinkov. BRUSSELS (No. 1), 6.0—Talk: How to make a House Comfortable. 6.15—Records. Andante from the Concerto in A minor (Golterman), Bohemian Polka (Weinberger), Furiant (Weinberger), Pianoforte Concerto in A minor (Schumann), Symphony No. 5 in C minor (Beethoven).



The traditional clown, without whom no Christmas festivities would be complete

5 p.m.

VIENNA, 4.0—Records (contd. from 3.45). 4.45—Folk Songs, from the Exhibition Studio. WARSAW, 4.0—Górzynski Jazz Band, with Orwid (Humorous Monologues). 4.50—For Housewives.

FRANKFURT, 5.0—Talk: Frontier Problems. 5.20—Surprise Programme. 5.35—Talk: The Roving Microphone. 5.45—Announcements. 5.50—Freiburg Concert Orchestra. Conductor: Döhrmann. Overture, Fest der Infantin (Gebhardt), Jubel und Trubel (Lautenschläger), Gavotte (Gille), Minuet (Boltoni), Oriental Suite (Popy), Potpourri (Lindemann), Siamesische Wachtprade (Lincke). HAMBURG, 5.0—Schulze-Prisca Quartet. Serenade (Haydn), Andante and Scherzo in C (Schubert), Romance (Grieg), German Folk Songs (arr. Kässmayr), 5.35—For Soldiers. 5.55—Weather. HILVERSUM, 5.0—Talk (contd. from 4.50). 5.10—Orchestra. Conductor: Wins. Il ballo tondo (Canepa), Novelette (Carabella), Vertige (Berger), Russian Rhapsody (Michiels), Melody (Scanlan), Melody (Bolton), Gipsy Melodies (Borganov-Wins), Romance (Matcovskohotov), 5.40—For Young Socialists. HUIZEN, 5.0—K.R.O. Boys (contd. from 3.40). 5.10—News in Esperanto. 5.25—K.R.O. Boys. Conductor: Lustenhouwer. Tales from the Vienna Woods (Strauss-Schmidt-Gentner Piazza



6 p.m. (contd.)

BRUSSELS (No. 2), 6.0—Talk by Prof. De Vleeschauer: An Introduction to Philosophy. 6.20—Radio Orchestra. Conductor: Paul Gason. Overture, "Figaro" (Mozart). Waltz, Parisienne (Wesley). Selection, "La montagne noire" (Holmes). Aragonese (Falla). Night in the Bay of Palma (Turina). Petite Suite (Sibelius). Spanish Caprice (Tchaikovsky). BUCHAREST, 6.0—Talk. 6.20—Records. BUDAPEST, 6.0—Letter-Box. 6.10—See Vienna. COLOGNE, 6.0—"Mysterium der Freude"—Christmas Music for Soprano, Harp, Strings, and Woodwinds (Josef Ingenbränd). Gerda Schüller-Brehm and the Station Orchestra. Conductor: Buschkötter. 6.30—Folk Songs of the Saar. Fr. Eugen Engels (Tenor); The Six Merry Singers; Marga Bäuml (Guitar); Willi Jansen (Accordion). Commentary by Kirschweg. DEUTSCHLANDSENDER, 6.0—Lower Bavarian Folk Music (on Records). 6.40—What do you say about it?—Discussions on Topical Themes. FRANKFURT, 6.0—Orchestra (contd. from 5.50). 6.30—See Cologne. HAMBURG, 6.0—See Königsberg. HILVERSUM, 6.0—For Young Socialists. 6.10—Waltz Orchestra. Overture, "The Bohemian Girl" (Balfe). Waltz, "The Count of Luxemburg" (Lehár). Vöglein auf dem Zweige (Kling). Extract, La Feria (Lacôme). 6.42—Milc. de Langevan Rijn (Contra) and Krelage (Pianoforte). Five Songs (Schumann): (a) Wehmüt, (b) Volksliedchen, (c) Wer macht dich so krank, (d) Alte Laute, (e) Ständchen. Rhapsody in G minor (Brahms). Der Kreuzzug (Schubert). Heilige Nacht (Schubert). Nocturne (Chopin). Souvenir des Pyrénées (Constantin). HUIZEN, 6.0—Literary Review. 6.25—Records. 6.40—Police Notes. 6.55—Talk. KALUNDBORG, 6.1—An Interview with the Mayor of Ringsted. 6.30—Talk: Diesel Motors. KÖNIGSBERG, 6.0—Weather. 6.10—Military Band. Conductor: Gareis. Florentine March (Füčík). Polonaise brillante (Weber). Selection, "Die Puppenfee" (Bayer). Parade March (Böhr). Paraphrase, Beim Holderstrauch (Herrmann). Waltz, Donauweibchen (Strauss). Duppeler-Sturmarsch (Piefke). LAHTI, 6.0—"The Desert Song" Operetta (Romberg) (contd. from 5.30). LEIPZIG, 6.0—Folk Music. 6.5—Quartet for two Violins, Viola, and Cello (Mozart). Bohnhardt Quartet. 6.35—Two Tales by Paul Eipper. LYONS (La Doua), 6.0—Concert. 6.30—News. MADRID (EAJ7), 6.0—Announcements. 6.30—News. 6.45 (approx.)—The Madrid Philharmonic Orchestra from the Teatro Español. Conductor: Casas. MONTE CENERI, 6.15—Records. Quintet for Pianoforte and Strings (Bloch). Finale, "Rigoletto" (Verdi). Spanish Dance, "La vida breve" (Fallá). Arabesque (Debussy). Allegro from the Sonata in A (Boccherini). MOSCOW (No. 1), 6.0—Opera House Relay (contd. from 4.20). MUNICH, 6.0—Folk Music. Peasant Band, Munich Folk Song Trio and the Station Schrammel Quartet. OSLO, 6.0—Book Review. 6.15—News. 6.30—Time. 6.31—To be announced. PARIS (Poste Parisien), 6.25—Exchange. 6.30—Roman Catholic Address. 6.55—Talk. PARIS (PTT), 6.30—Radio Journal. PARIS (Radio-Paris), 6.10—Weather; Report for Farmers; Talk for Farmers; Exchange; Racing Results. 6.25—Talk by M. Sorel: Paris of Yesterday. 6.40—Talk by M. François de Téramond: The Ivory Industry. 6.50—Talk by M. Tristan Bernard: A Treatment for Laziness. PRAGUE, 6.0—Time; News. 6.10—Christmas Carols by a Ladies' Quartet. 6.30—Talk: Christmas 1914. 6.55—Talk on the 7.0 Transmission. RADIO-NORMANDIE, 6.0—For Children. 6.30—Sports. 6.50—News. ROME, 6.0—Tourist Report; Report of the Royal Geographical Society; Dopolavoro Announcements. 6.15—News in Foreign Languages. SOTTENS, 6.2—Chimes. 6.5—Talk. 20—Talk: The Swiss Post Spitter. 9—Financial Report. 6.59—ther.

STOCKHOLM, 6.0—Variety. 6.15—Weather; News. 6.30—Song Recital by Ninni and Set Svanholm. 6.55—Talk: A Christmas in Greenland, from Örebro. STRASBOURG, 6.0—Records. 6.30—French. 6.45—Talk in German for Farmers. STUTTGART, 6.0—Variety (contd. from 5.30). 6.30—See Cologne. TOULOUSE (Radio-Toulouse), 6.0—News. 6.15—Light Music. Philharmonic Orchestra. Roses from the South (Strauss). Dorfschwalben aus Oesterreich (Strauss). Liebeslied-erwalzer (Strauss). In a Persian Market (Kettelbey). Donauwellen (Ivanovici). 6.30—Operetta Music. Songs, "Arsene Lupin" (Mirande), "La basoche" (Messager), "Elle est à vous" (Yvain) and "A la belle bergère" (Mireille). 6.45—Orchestra. On Wings of Song (Mendelssohn). Dance (Gungl). Minuet, "Befenice" (Handel). Ma poupée chérie (de Séverac). Butterfly (Katcher). TURIN, 6.0—Tourist and Dopolavoro Notes. 6.15—News in Foreign Languages. VIENNA, 6.0—News; Programme Announcements; Weather; Sports Notes. 6.10—"A Journey across Europe"—Musical Sketches (Jaritz) by the Lao Jaritz Band, Maisy Brauner, Ernst Schön (Songs), and the "Humoreskimos." WARSAW, 6.0—Extracts, "Petruschka"—Ballet (Stravinsky) on Records. 6.20—Talk: Polish Towns. 6.30—Concert. 6.45—Programme Announcements. 6.50—Sports Notes.

7 p.m.

ALGIERS, 7.0—Records. 7.30—Sports Notes. 7.45—Lottery Results. 7.55—News. ATHLONE, 7.0—Readings by Desmond Grean. 7.15—Irish Talk by S. O'Duinnin. 7.30—Time. 7.31—Pantomime presented by John MacDonagh, with the Station Orchestra. BARCELONA, 7.0—Records. 7.30—Exchange; Records. BARI, 7.10-7.30—Programme for Greece. Greek National Anthem; Announcements: News in Greek; Marcia Reale. Giovinetta (Blanc). BELGRADE, 7.0—Station Orchestra. 7.30—Announcements. 7.40—Talk. BERLIN, 7.0—News. 7.10—"The People's Wireless Set"—Variety Programme. The Georg Nettelmann Dance Band; Dietrich Schrammel Quartet, and the Station Orchestra. Conductor: Heinrich Steiner. Interlude: "The small relatives"—Sketch (Ludwig Thoma). BEROMÜNSTER, 7.0—Talk (contd. from 6.40). 7.10—Folk Music Records. 7.20—Radio Federalingen Jubilee Programme from Hühnerhofen. BORDEAUX-LAFAYETTE, 7.45—News: English Lesson. BRESLAU, 7.0—News. 7.10—Operetta Concert. Station Philharmonic Orchestra. Conductor: Lindner. Ellen Pfitzner (Soprano). Hans Schröck (Tenor). Overture, "A Night in Venice" (Strauss). Rose Song, "The Bird Fancier" (Zeller). Duet, "Der Bettelstudent" (Millocker). Introduction, Chorus and Dance, "Das Pensionat" (Suppe). Czardas, "Die Fledermaus" (Strauss). Duet, "Wiener Blut" (Strauss). Hofballtänze (Lanner). Overture, "Gipsy Love" (Lehár). Selection, "Der Tenor der Herzogin" (Künneke). Duet, "Der goldene Pierrot" (Goetze). Song, Viel schöne Frauen gibts im bunten Liebesgarten (Goetze). Selection, "Das Spielzeug Ihrer Majestät" (Königsberger). BRUSSELS (No. 1), 7.0—Records (contd. from 6.15). 7.30—Science Review; Talk for Boys. BRUSSELS (No. 2), 7.0—Orchestra (contd. from 6.20). 7.20—Records: Algerian Music. 7.30—News. 7.55—Radio Review. BUCHAREST, 7.0—Dance Music. BUDAPEST, 7.0—See 6.10 Vienna. COLOGNE, 7.0—News. 7.10—See Breslau. DEUTSCHLANDSENDER, 7.0—Motto: Weather; News. 7.15—"Imaginary Castles"—Variety. Station Symphony Orchestra. Conductor: Arthur Jander. Ludwig Manfred Lommel flies to the Moon, Werner Finck builds Castles in the Air, Lena Haustein becomes a Child again, etc. FRANKFURT, 7.0—News. 7.5—See Stuttgart. 7.15—Variety. HAMBURG, 7.0—News. 7.15—"Wireless Variety." Station Orchestra. Conductors: Eibenschütz and Gerhard Maasz; the Juan Liossa Dance Band; the Station Dance Band. Conductors:

Erwin Bolt and Rio Gebhardt; the Wireless Chorus, the Male Voice Quartet and the Ladies' Vocal Trio. Conductor: Gregor; the Five Kardosh Singers; the Voelker Duettists; Irene de Noiret, Lena Haustein, Elizabeth Papperitz, Maria Kloth, Curt Engel, Jupp Hussels, Paul Hicketier and Mischa Ignatjeff (Songs); and others. HILVERSUM, 7.0—Contra) and Pianoforte (contd. from 6.42). 7.10—Jong (Organ). Sailing on the Robert E. Lee (West). Piece (Tibor). Extracts, "Orpheus in the Underworld" (Offenbach). Potpourri (Dostal). 7.40—S O S Messages; Records. HUIZEN, 7.0—Talk (contd. from 6.55). 7.15—Records. 7.40—News. 7.45—K.R.O. Orchestra. Conductor: van 't Woud. Prelude (Rachmaninov). Erinnerung an Luzern (Blon). Lolita (Buzzi-Peccia). Humoresque (Dvořák). Rusticanello (Cortopassi). In a Chinese Temple Garden (Kettelbey). JUAN-LES-PINS (Radio Côte d'Azur), 7.15—Station Orchestra. 7.40—Film Review. 7.50—Press Review. KALUNDBORG, 7.1—Ballet Music. Radio Orchestra, Conductor: Reesen. Dances, "Les petits riens" (Mozart). Dance, "Céphale et Procris" (Grétry). Selection, "Javotte" (Saint-Saëns). Ballet Suite, "Lakmé" (Delibes). Bachanale, "The Seasons" (Glazunov). 7.45—Reading. KÖNIGSBERG, 7.0—News. 7.10—For Soldiers. LAHTI, 7.0—"The Desert Song"—Operetta (Romberg) (contd. from 5.30). 7.45—News. LEIPZIG, 7.0—Deutschlandsender. 7.15—See Deutschlandsender. LYONS (La Doua), 7.30—Local News. 7.50—Talk. MADRID (EAJ7), 7.0—Orchestra (contd. from 6.45). MONTE CENERI, 7.0—Request Programme. Station Orchestra. 7.45—Records: Folk Songs. MUNICH, 7.0—News. 7.10—"The Czarevitch"—Operetta (Lehár). OSLO, 7.0—To be announced. 7.15—Station Orchestra. Conductor: Kramm. March, Hispania (Dreyer). Overture (Offenbach). Operetta Potpourri (Robrecht). Mattinata (Leoncavallo). Serenade (Moszkowski). Chant melancholique (Lie). Melody (Lie). Waltz (Fall). PARIS (Poste Parisien), 7.2—Records. 7.5—Sports Talk. 7.7—News. 7.20—Amusement Guide. 7.23—Review of the Week. 7.30—Records. 7.50—Extracts, "Fanny" (Pagnol) on Records. PARIS (PTT), 7.45—Legal Talk. 7.53—Talk: The Protection of Animals. PARIS (Radio-Paris), 7.0—Book Review. 7.20—Review of the Latin Press. PRAGUE, 7.0—Czech Choral Music. Moravian Teachers' Choir. Conductor: Ferdinand Vach. Pieces by Foerster, Zich, Playec, Zino and Jeremias. RADIO-NORMANDIE, 7.0—Request Programme. REYKJAVIK, 7.45—For Children. ROME, 7.0—News; Sports Notes. 7.10—Records. 7.30—Time; Announcements; Sports Notes. 7.45—To be announced. SOTTENS, 7.0—Quintet for Flute, Oboe, Clarinet, Horn and Bassoon (Skerjanc). 7.30—Talk on the following transmission. 7.40—"The Merry Widow"—Operetta in Three Acts (Lehár), from the Grand Theatre, Geneva. STOCKHOLM, 7.0—Talk (contd. from 6.55). 7.30—Old Dance Music. STRASBOURG, 7.0—Records. Overture, "Light Cavalry" (Suppe). Song, Tes yeux (Bonincontro). Garden of Happiness (Haydn-Wood). Le marchand de sable (Bos). Waltz (May). Barcarolle, "Tales of Hoffmann" (Offenbach). Serenade (Toselli). Overture, "Marinarella" (Fucik). March, El Capitan (Sousa). 7.30—News. 7.45—Records. STUTTGART, 7.0—News. 7.5—Local Review. 7.15—See Frankfurt. TOULOUSE (Radio-Toulouse), 7.0—Orchestra (contd. from 6.45). 7.10—Opera Music. Kermesse, "Faust" (Gounod). Arias, "William Tell" (Rossini), "Siegfried" (Wagner). Wotan's Farewell, "The Valkyrie" (Wagner). Duet, "I Pagliacci" (Leoncavallo). 7.30—News. 7.45—Military Music. 7.50—Talk. TURIN, 7.0—News; Weather; Records. 7.30—Time; Announcements; Sports Talk. 7.45—To be announced. VIENNA, 7.0—"A Journey across Europe"—Musical Sketches (contd. from 6.10). 7.20—Motto. 7.25—

Talk: Austrian Policy under Prince Eugene of Savoy. WARSAW, 7.0—Light Music. Conductor: Nawrot. Wasiel (Songs). Overture, "Le bois fleuri" (Linat). Songs: (a) Wien bei Nacht (Stolz), (b) Song (May-Schwabach). Waltz, "Eva" (Lehár). Songs: (a) Song from "Ninon" (Kaper-Jurman), (b) Boston (Strick), (c) Le bonheur est une fleur rare (Pollack). African Suite (Pink). Cadets' March (Metra). 7.45—News. 7.55—Talk: Work in Poland.

8 p.m.

ALGIERS, 8.0—Humorous Programme (on Records). 8.30—Records. 8.40—News. 8.45—Station Orchestra. Soloists: Mile. Bresson (Songs), Le Meitour (Violin) and Pisapia (Pianoforte). Overture, "Les Saltimbanques" (Ganne). Selection, "Werther" (Massenet). Ave Maria (Pisapia). Passepied (Messager). Pieces (Gedalgé): A la française, A l'Allemande, A la viennoise. Impromptu (Schubert). Turkish March (Mozart). ATHLONE, 8.0—Pantomime (contd. from 7.31). 8.30—Cecil O'Shaughnessy (Bar-tone). 8.45—Station Orchestra. BARCELONA, 8.0—Records. In the Interval: News. BELGRADE, 8.0—Talk. 8.10—Wind Instrument Concert. Conductor: Pokorni. BERLIN, 8.0—Variety (contd. from 7.10). BEROMÜNSTER, 8.0—Radio Federalingen Jubilee Programme (contd. from 7.20). 8.30—News. 8.40—Dance Records. BORDEAUX-LAFAYETTE, 8.0—See Paris (PTT). 8.10—News. 8.30—"Le temps des Cerises"—Comedy (Wattine). BRATISLAVA, 8.0—Records. 8.10—Reading of Poems (Jan Jesensky), with Introductory Talk. BRESLAU, 8.0—Operetta Concert (contd. from 7.10). BRNO, 8.0—Talk. BRUSSELS (No. 1), 8.0—Orchestra. Oscar Delvigne (Pianoforte). Overture, "Oberon" (Weber). Pianoforte Concerto (Liszt). Scottish Symphony (Mendelssohn). BRUSSELS (No. 2), 8.0—English and American Music. Conductor: Douliez. Sailors' Dance (Granville-Bantock). Dance from the Miniature Suite (Eric Coates). Ballet Music, My Lady Dragonfly (Finck). Selection, The Guildford Suite (Dunhill). Extracts, "Sylvan Scenes" (Percy Fletcher): (a) Sylvan Dance, (b) Cupid's Carnival. Sir Roger de Coverley (arr. Douliez). Suite, Henry VIII (John Foulds). Selection, "On with the Show" (Horatio Nicholls). Selection, "Show Boat" (Kern). The Washington Post (Sousa). Selection, "No, No, Nanette" (Youmans). Three Dances, "Nell Gwynn" (German). 8.45—Humorous Interlude. BUCHAREST, 8.0—Talk. 8.15—Dance Music. BUDAPEST, 8.0—Old Dance Music, by the Eröss Takács Jazz Band. COLOGNE, 8.0—See 7.10 Breslau. DEUTSCHLANDSENDER, 8.0—"Imaginary Castles"—Variety (contd. from 7.15). FRANKFURT, 8.0—Variety (contd. from 7.15). HAMBURG, 8.0—Variety (contd. from 7.15). HILVERSUM, 8.0—Records. 8.10—"The Seasons" (Tchaikovsky). V.A.R.A. Orchestra. Conductor: de Groot. 8.55—Recitations. HUIZEN, 8.0—Orchestra (contd. from 7.45). 8.15—Religious Address. 8.45—K.R.O. Orchestra. Conductor: van 't Woud. Marche Lorraine (Ganne). Die Kulis von Sumatra (Jessel). Selection, "The Dollar Princess" (Fall). Wildfeuer (Strauss). JUAN-LES-PINS (Radio Côte d'Azur), 8.0—News; Orchestra. KALUNDBORG, 8.5—Extracts, Scènes ecossaises (Godard), by Muncck (Oboe). 8.25—Bellman Songs by Claesson. 8.50—News. KÖNIGSBERG, 8.0—For Soldiers (contd. from 7.10). 8.10—See 7.10 Berlin. LAHTI, 8.0—News in Swedish. 8.15—Dance Music. LEIPZIG, 8.0—See 7.15 Deutschlandsender. LYONS (La Doua), 8.0—Talk: Fire. 8.10—Talk in Esperanto. 8.20—Sports Notes. 8.30—Revue from the Guignol Mourquet. MADRID (EAJ7), 8.0—Orchestra (contd. from 6.45). In the Interval: News. MONTE CENERI, 8.0—Records; Folk Songs (contd. from 7.45). 8.30—

SATURDAY Dec. 29

—Weekly Review for Swiss Nationals Abroad. 8.45—Dance Music from the Casino Cecil, Lugano. MORAVSKÁ-OSTRAVA, 8.0—Lecture Recital. 8.10—Saxophone Recital by Kreiner. 8.25—Sketch in Silesian Dialect. MOSCOW (No. 1), 8.55—Chimes. MUNICH, 8.0—"The Czarevitch"—Operetta (Lehár) (contd. from 7.10). OSLO, 8.0—Orchestra (contd. from 7.15). 8.10—Variety. 8.40—News. PARIS (Poste Parisien), 8.15-8.45—A Sketch with Maury, Legrand and Waltham. PARIS (PTT), 8.0—Talk by M. René Doumic of the Académie-Française. 8.10—Songs of Provence (on Records). O Megali, Lou cant dou souleu, Lis esclop. Cant de la rosa, Le beau tambourinaire. 8.30—See Lyons-la-Doua. PARIS (Radio-Paris), 8.0—Variety Programme. (a) "La petite chanson des hommes"—Musical Comedy in Three Parts (Jean Clergue), (b) Readings from the works of Alphonse Allais, Franc-Nohain and Mac-Nab, the French Humorists; (c) Duets by Mme. Yvonne Yma and Robert Casadesus. In the Interval at 8.30: Press Review and Weather. PRAGUE, 8.0—Records. 8.10—"From Calendar to Calendar"—Revue (Jurist). RADIO-NORMANDIE, 8.0—Christmas Carols and Old Songs from the Saint-Michel, Yvetot. REYKJAVIK, 8.0—For Children. 8.10—Weather. 8.25—Musical Programme. 8.50—Announcements. ROME, 8.0—To be announced. SOTTENS, 8.0—"The Merry Widow"—Operetta (Lehár) (contd. from 7.40). News in the Interval at 8.30. STOCKHOLM, 8.0—Old Dance Music. 8.45—News. STRASBOURG, 8.0—News in German. 8.10—Local Review. 8.15—Press Review in German. 8.30—Four Christmas Plays (Charles Dombroe): (a) "Le manteau de Jaur" (b) "Le miracle des Orgues," (c) "L'agneau d'argile," (d) "Mon fils que voici." STUTTGART, 8.0—See 7.15 Frankfurt. TOULOUSE (Radio-Toulouse), 8.0—Talk. 8.15—Humorous Sketches. 8.30—Symphony Orchestra. Danse macabre (Saint-Saëns). Torch March (Meyerbeer). TURIN, 8.0—"Francesca da Rimini"—Opera (Zandonai). VIENNA, 8.0—Talk (contd. from 7.25). 8.15—News. 8.25—Vienna Symphony Orchestra. Conductor: Max Schönherr. Maria Reining (Soprano). Overture, "Der Opernball" (Heuberger). Waltz, Aus meinem Leben (Hellmesberger). Song, "Die Fledermaus" (Strauss). Song, Der Schmetterling (Weinberger). Song, "Wienerblut" (Strauss). Slav Dance (Hoffmann). Two Pieces (Tchaikovsky): (a) Valse des fleurs, (b) Miniature Overture. Selection, "Eva" (Lehár). Song, "Giuditta" (Lehár). Symphonic Intermezzo, "Der singende Traum" (Tauber). Comedy Overture (Zador). Song, "Die toie Stadt" (Kornfeld). Two Songs (Tosti): (a) Adieu, (b) Serenata. Song, Balgüester (Meyer-Helmund). Norwegian Dance (Grieg). Waltz, "Der Rosenkavalier" (Strauss). Overture, "Waldmeister" (Strauss). WARSAW, 8.0—Beethoven Concert. Station Orchestra. Conductor: Oziminski. Balzam (Pianoforte). Overture, Prometheus. Pianoforte Concerto in E flat. 8.45—Literary Programme.

9 p.m.

ALGIERS, 9.0—Orchestra (contd. from 8.45). In the Interval: News. 9.55—News. ATHLONE, 9.0—Talk by Lord Ffrench. 9.15—Eileen Clancy (Soprano). 9.30—P. Clancy (Traditional Fiddle). 9.45—J. O'Keefe (Accordion). BARCELONA, 9.0—Chimes; Announcements; Exchange. 9.10—Station Orchestra. Extract, "Boris Godunov" (Mussorgsky). Minuet (Godard). Selection, "Samson and Delilah" (Saint-Saëns). 9.30—Jeanette Bergmann (Soprano). Tus ajillos negros (Fallá). Barcarolle (Grieg). Extract, "Rinaldo" (Handel). Aria, "Fidelio" (Beethoven). BELGRADE, 9.0—Press Review. 9.15—Wind Instrument Concert (contd. from 8.10). BERLIN, 9.0—News. 9.15—Variety (contd. from 7.10).

SATURDAY Dec. 29

9 p.m. (contd.)

BEROMÜNSTER, 9.0—Dance Records. BORDEAUX-LAFAYETTE, 9.0—"Le Temps des cerises"—Comedy (contd. from 8.30). BRATISLAVA, 9.15—News and Sports Notes in Hungarian. BRESLAU, 9.0—News. 9.30—Station Dance Band. Conductor: Ilgner. BRUSSELS (No. 1), 9.0—Talk by Theo Fleischmann: The Talks and Commentaries Section of our Programmes during 1934. 9.15—Orchestra. Oscar Delvinge (Pianoforte). Pianoforte Solo: Petite Suite (Jongen). Scènes alsaciennes (Massenet). BRUSSELS (No. 2), 9.0—Anglo-American Music (contd. from 8.0). BUCHAREST, 9.0—News. 9.25—Cabaret. BUDAPEST, 9.0—News. 9.20—The Rigo Cigány Band. COLOGNE, 9.0—Time; Weather; News. 9.20—Sports Talk. 9.30—See Breslau. DEUTSCHLANDSENDER, 9.0—News. 9.45—Weather. FRANKFURT, 9.0—News. 9.15—News. 9.20—See Munich. 9.45—Hauck Dance Band. HAMBURG, 9.0—News. 9.20—Variety (contd. from 7.15). HILVERSUM, 9.0—Recitations. 9.10—Steyn (Organ). 9.25—Press Review. 9.40—Ensemble. Conductor: Steyn. Booy (Songs). HUIZEN, 9.0—Orchestra (contd. from 8.45). 9.10—Christmas Play. 9.40—K.R.O. Orchestra. Conductor: van 't Woud. Selection, "Henry VIII" (Saint-Saëns). Meditation, "Thais" (Massenet). Selection, "Samson and Delilah" (Saint-Saëns). JUAN-LES-PINS (Radio Côte d'Azur), 9.0—News. 9.15—Sacred Music, from the Eglise du Suquet, Cannes. KALUNDBORG, 9.5—Part Relay of a Sound Film from the Grand Theatre. 9.15—English and American Music. The Radio Orchestra. Conductor: Reesen. Overture, "The Mikado" (Sullivan). Waltz and Tarantella, Gipsy Suite (German). Selection, "The Three Musketeers" (Friml). Suite, Summer Days (Coates). March, The Washington Post (Souza).

KÖNIGSBERG, 9.0—News. 9.20—See Munich. 9.45—See 9.30 Breslau. LAHTI, 9.0—Dance Music. LEIPZIG, 9.0—News. 9.15—To be announced. 9.45—See Munich. LYONS (La Doua), 9.0—Revue (contd. from 8.30). After the Programme: News. MADRID (EAJ7), 9.0—De Arrigori (Tenor). El robe y el ombú (Cargi-Arceluz). La Dolorosa (Serrano). Dream, "Manon" (Massenet). Gipsy Lament (Greger). Mendi-Mendián (Usandizaga). Granadinas (Alvarez). Jota (Serrano). After the Programme: the "Human Saxophone." MOSCOW (No. 1), 9.0—Chimes. 9.5—French Programme: (a) New Year's Eve—Humorous Programme, (b) Sports. MUNICH, 9.0—News. 9.10—Talk. 9.20—Ice-Hockey Match, Report on Records: The Canadian Team, Winnipeg Monarchs v. the Winners of the International Tournament at Garmisch-Partenkirchen. 9.45—Station Dance Band. OSLO, 9.0—Topical Talk. 9.15—Literary Talk. 9.45—Dance Records. PARIS (Poste Parisien), 9.0—Station Jazz Band and a Vocal Trio. Conductor: Romans. Soloists: Carol King and Henry Arnold. 9.35—News. PARIS (PTT), 9.0—See 8.30 Lyons-la-Doua. 9.30—"Bon an, mal an"—Revue (René-Paul Groffe) with the Composer. PARIS (Radio-Paris) 9.0—Variety (contd. from 8.0). In the Interval at 9.16: News; Review by Dominique Bonnaud. PRAGUE, 9.0—Time; News. 9.15—Records. 9.30—Light Music. Rudolf Pekarek Orchestra. Florentine March (Fucik). Overture, "The Gipsy Baron" (Strauss). Piece (Maly). Pilot March (Kumok). Maybe! (Kulok). Snowflakes (Smaek). Little White Clouds (Stelibsky). Foxtrot (Stelibsky). Polka (Tichy). RADIO-NORMANDIE, 9.0—Christmas Carols and Old Songs (contd. from 8.0). 9.30—Concert. REYKJAVIK, 9.0—News. 9.30—Reading. ROME, 9.0—To be announced. SOTTENS, 9.0—"The Merry Widow"—Operetta (Lehár) (contd. from 7.40). STOCKHOLM, 9.0—Dance Music. STRASBOURG, 9.0—Christmas Plays (contd. from 8.30). STUTTGART, 9.0—News. 9.20—

See Munich. 9.45—Dance Music from Munich. TOULOUSE (Radio-Toulouse), 9.0—"La mascotte"—Operetta (Audran)—Concert Version. TURIN, 9.0—"Francesca da Rimini" (Zandouai) (contd. from 8.0). VIENNA, 9.0—Symphony Orchestra (contd. from 8.25). In the Interval at 9.25: News. WARSAW, 9.0—Light Music. 9.15—Dance Music.

10 p.m.

ATHLONE, 10.0—Variety. 10.30—Time; News. 10.40—Records. BARCELONA, 10.0—News. 10.5—Pahissa (Pianoforte). Prelude (Rachmaninov). Polonaise (Chopin). Quejas o La Maja y el superior (Granados). Andaluza (Granados). Dance, "Three Cornered Hat" (Falla). 10.30—Topical Talk in Catalan. BELGRADE, 10.0—Wind Instrument Concert (contd. from 8.10). 10.10—Records. BERLIN, 10.0—Variety (contd. from 7.10). BRESLAU, 10.0—Dance Music. BRUSSELS (No. 1), 10.0—News. 10.10—Dance Music. BRUSSELS (No. 2), 10.0—News. 10.10—See Brussels (No. 1). BUCHAREST, 10.0—The Rigo Cigány Band. 10.10—Records. COLOGNE, 10.0—See Breslau. DEUTSCHLANDSENDER, 10.0—See Munich. FRANKFURT, 10.0—Hauck Dance Band. HAMBURG, 10.0—Variety (contd. from 7.15). HILVERSUM, 10.0—Ensemble (contd. from 9.40). 10.10—Records. 10.25—String Orchestra. Conductor: Walis. Waltz and March (Volkmann). Berceuse (Hartmann). Tzigania (Pauling). Allegretto and Scherzetto (Pannowitz). Waltz (Dvořák). Scherzo (Dvořák). 10.55—Records. HUIZEN, 10.0—K.R.O. Orchestra (contd. from 9.40). 10.10—Press Review. 10.15—Records. 10.25—K.R.O. Orchestra. Conductor: Van 't Woud. Festiuel (Blankenburg). Dutch Dances (Siep). Eine Schachtel Soldaten (Siede). Waltz Potpourri (Robrecht). Schweizer Schützengilde (Zimmer). March (Schootemeyer). 10.55—Record. KALUNDBORG, 10.0—Tuxen Dance Band.

KÖNIGSBERG, 10.0—See Breslau. LEIPZIG, 10.0—See Munich. MADRID (EAJ7), 10.0—Chimes. 10.5—News. 10.15—Roman (Violin). Concerto (Vieuxtemps). Caprice viennois (Kreisler). Hebrew Melody (Achron). Variations on a Theme of Corelli (Tartini-Kreisler). Souvenir de Moscou (Wieniawski). MOSCOW (No. 1), 10.5—Swedish Programme: (a) New Year's Eve—Humorous Programme, (b) Sports. MUNICH, 10.0—Station Dance Band. OSLO, 10.0—Dance Records. PARIS (Poste Parisien), 10.0—Station Jazz Band and Vocal Trio (contd. from 9.0). 10.30—Variety. PARIS (PTT), 10.0—"Bon an, mal an"—Revue (contd. from 9.30). PARIS (Radio-Paris), 10.0—Variety (contd. from 8.0). 10.30—Dance Music by the Pascal Orchestra. PRAGUE, 10.0—Light Music (contd. from 9.30). RADIO-NORMANDIE, 10.0—Café-Concert. REYKJAVIK, 10.0—Station Trio; Records; Dance Music. ROME, 10.0—News. SOTTENS, 10.0-10.30—"The Merry Widow"—Operetta (Lehár) (contd. from 7.40). STOCKHOLM, 10.0—Modern Dance Music. STRASBOURG, 10.0—Christmas Plays (contd. from 8.30). 10.30—Dance Music. STUTTGART, 10.0—See Munich. TOULOUSE (Radio-Toulouse), 10.0—Sound-Film Music. 10.15—News. 10.30—Mozart Concert. Minuet. Overture, "Idomeno." Aria, "Figaro." Overture, "Il Seraglio." Aria, "Cosi fan tutte." Turkish March. TURIN, 10.0—"Francesca da Rimini" (Zandouai) (contd. from 8.0). VIENNA, 10.0—Orchestra (contd. from 8.25). 10.30—Records: Schrammel Music. Waltz, Herein-spaziert (Ziehrer). March, Jeizt wird's fidel (Bauer-Honer). Waltz, Mein Lebenslauf ist Lieb und Lust (Strauss). Marching Song, Weana Hamur (Lorens). Slibowitz-Tanz (Strohmeier). Waltz, In lauschiger Nacht (Ziehrer). March, Fesch und Resch (Jäger-Kronegger). Potpourri of Old Viennese Songs March, Wien bleibt Wien (Schrammel). WARSAW, 10.0—Weather. 10.5—To be announced. 10.35—Dance Records: Jack Payne's Band.

11 p.m.

BARCELONA, 11.0—Records. BERLIN, 11.0—Variety (contd. from 7.10). BRESLAU, 11.0—Dance Music. BRUSSELS (No. 1), 11.0—Dance Music. BRUSSELS (No. 2), 11.0—See Brussels (No. 1). COLOGNE, 11.0—See Breslau. FRANKFURT, 11.0—See Stuttgart. HAMBURG, 11.0—Heinemann Dance Band. HILVERSUM, 11.0-11.40—Records. HUIZEN, 11.0—Records. KALUNDBORG, 11.0—Chimes. 11.2-11.15—Tuxen Dance Band. KÖNIGSBERG, 11.0—See Breslau. MADRID (EAJ7), 11.0 (approx.)—Dance Music. 11:45—News. PARIS (Poste Parisien), 11.0—Variety. PARIS (PTT), 11.0—Dance Music; News. PARIS (Radio-Paris), 11.0—Dance Music (contd. from 10.30). RADIO-NORMANDIE, 11.0—Records. REYKJAVIK, 11.0—Dance Music. STRASBOURG, 11.0—Dance Music. STUTTGART, 11.0—Wende Dance Band, with Interludes. TOULOUSE (Radio-Toulouse), 11.0—Mozart Concert (contd. from 10.30). 11.15—Request Music. 11.30—Orchestra. Onstep. Polonaise in A (Chopin). Love everlasting (Friml). Liebesfreud (Kreisler). 11.50—Songs. VIENNA, 11.0—Dance Records. WARSAW, 11.0—Dance Music.

12 midnight

BARCELONA, 12.0—News. FRANKFURT, 12.0—See Stuttgart. RADIO-NORMANDIE, 12.0—Light Music. 12.30—Dance Music. REYKJAVIK, 12.0—Dance Music. STUTTGART, 12.0—Wende Dance Band with Interludes. TOULOUSE (Radio-Toulouse), 12.0—News. 12.5—"Au cavaeu de minuit"—Fantasy. 12.15-12.30—Orchestra. Fêtes (Debussy). España (Chabrier).

1 a.m. (Sunday)

RADIO-NORMANDIE, 1.0—News. 1:10—Dance Music.

MEDIUM-WAVE STATIONS IN AMERICA

U.S.A., Canadian, Central and South American transmitters (5kW or more) in order of frequency and wavelength

Table with 4 main columns: METRES, Kc/s, POWER (kW), CALL-SIGN AND SITUATION. It lists radio stations across the U.S.A., CANADA, and SOUTH AMERICA with their respective frequencies, power outputs, and locations.

(A fuller list of medium-wave broadcasting stations in America was printed in our issues of November 9 and 16 last)

# Dancing to Unseen Bands

How to Make the Most of Radio Dance Music at Christmas

DANCING to broadcast music is sure to form part of this year's Christmas festivities in thousands of homes all over the country. If yours is likely to be numbered among them, the following suggestions should help you to derive maximum enjoyment from the dance music facilities that will be available.

A good many people tell me that, although they can dance easily and enjoyably to the music of a band that is actually present in the flesh, so to speak, they find great difficulty in dancing properly to radio or gramophone music. There is no doubt that this difficulty is due, in most cases, to poor reproduction of the rhythmic ingredient of dance tunes by the set and loudspeaker.

Every dance tune may be said to consist of melody superimposed on a foundation of rhythm. For actual dancing purposes the rhythm is, of course, the more essential part of the whole. One could still dance to the music, in fact, if most of the melody were omitted altogether; but, if the foundation of rhythmic sounds is partly or wholly inaudible, the music may easily become almost useless for the practical purposes of dancing. (After all, the most skilful of dancers can hardly be expected to keep in step with the time of a rhythm that they cannot hear!)

A great many wireless sets and radio-gramophones, especially battery-operated types, fail to reproduce properly the instruments that give out the characteristic rhythm in a dance tune. Indeed, I have heard sets with which it was almost impossible to tell (unless one happened to know the tune) whether the dance number being reproduced was a waltz or a foxtrot!

In most cases, probably, this deficiency is due to ineffective response towards the lower end of the scale of sound-frequencies. There may be an artificial "boomy" bass of sorts, but the true low notes are not reproduced faithfully. This state of affairs must be remedied before anyone can really enjoy dancing to the music provided by the loudspeaker.

In extreme cases the only complete cure may be to scrap the existing set and obtain a better one! But as a general rule reproduction of dance music that is lacking in rhythmic content can be corrected sufficiently for practical purposes by some quite simple type of tone control or tone correction device.

## Emphasising the Bass Notes

If the set is not fitted with an adjustable tone control that will emphasise the bass notes to the desired extent, it may be advisable to rig up a temporary tone-correcting arrangement inside the set. This device may be quite a simple affair, such as a condenser, or condenser and resistance in series, connected across the secondary of an intervalve L.F. transformer, or across the loudspeaker terminals.

With a condenser of a semi-variable type (adjustable to give capacities ranging from, say, 0.0001 to 0.001 microfarad), or a fixed condenser in series with a variable resistance, the bass response can be adjusted as requisite to bring out the low notes.

Tone correction of this sort should, of course, be unnecessary in the case of a really efficient all-mains set with a first-class moving-coil loudspeaker, as such a combination should give quite enough natural bass to bring out the rhythm without any artificial aids.

## Volume and Sound Distribution

There is next the question of volume. This is closely linked up with the foregoing question of frequency response. If the low notes are being reproduced properly, so that the rhythm can be followed easily by the dancers, there is no need for very great volume in an ordinary room. Unfortunately, a good many sets do not give proper value to the "rhythm notes" until they are going "all out." But if the balance of reproduction can be adjusted so that the low notes get the best of it, it will probably be found that the music can be used for dancing with the volume control much farther from the maximum setting than it would otherwise need to be.



Another point to consider is that of sound distribution. To make the music easy to dance to, it must be distributed as evenly as possible all over the room, so that the dancers can follow the music without difficulty as they move around the floor.

As most loudspeakers are rather markedly directional, this is easier said than done. But the difficulty can be overcome in most cases by a little practical experimenting with the position of the set or loudspeaker. Often the best position, for the present purpose, is with the set or speaker placed diagonally across one corner of the room. Of course, if an additional external speaker is available, so much the better. The two can then be arranged so that the music is distributed fairly evenly throughout the room.

If you want to dance at times when no dance music is being broadcast from your nearest Regional station, then of course you will have to fall back on other stations or on gramophone records. In the former case, a set with some sort of automatic or self-adjusting volume control to overcome fading is a great asset, since music that disappears periodically is anything but pleasant to dance to!

W. O.

# Home Broadcasting for Christmas Parties

It is very easy to improvise a home broadcasting studio which will provide endless amusement for the parties and festivities that always take place at this time of the year. The necessary items for home broadcasting are a microphone, amplifier, and loudspeaker. Almost every valve set owner has an amplifier and loudspeaker, while the microphone may be improvised from an extension speaker with excellent results, especially if the latter is a moving-coil speaker. Carbon microphones are obtainable at prices varying from a few shillings to several pounds, depending on the quality of the product, the cheaper ones being quite suitable for home broadcasting where they are mainly required for speech. One earpiece of a headphone set will make a microphone if the cap is removed and an improvised horn made of cardboard or wood is fitted.

## Microphone Connexions

An old horn speaker or a headphone earpiece may be connected directly to the gramophone pick-up terminals of the receiver, and will not need a transformer. The output from almost any type of speaker used as a microphone is very small, and in some cases an extra stage of amplification is needed in addition to that of the receiver. A single-valve battery amplifier is easy to construct, and will not consume much current. About 30 volts H.T. from pocket lamp batteries is sufficient, while the smallest L.T. accumulator will supply the filament current. The output from a moving-coil speaker should be taken from the highest ratio on the speaker transformer. A carbon microphone requires a battery—a flashlamp battery is usually quite suitable—and a microphone transformer, and is not likely to require any more amplification than that given by the average receiver.

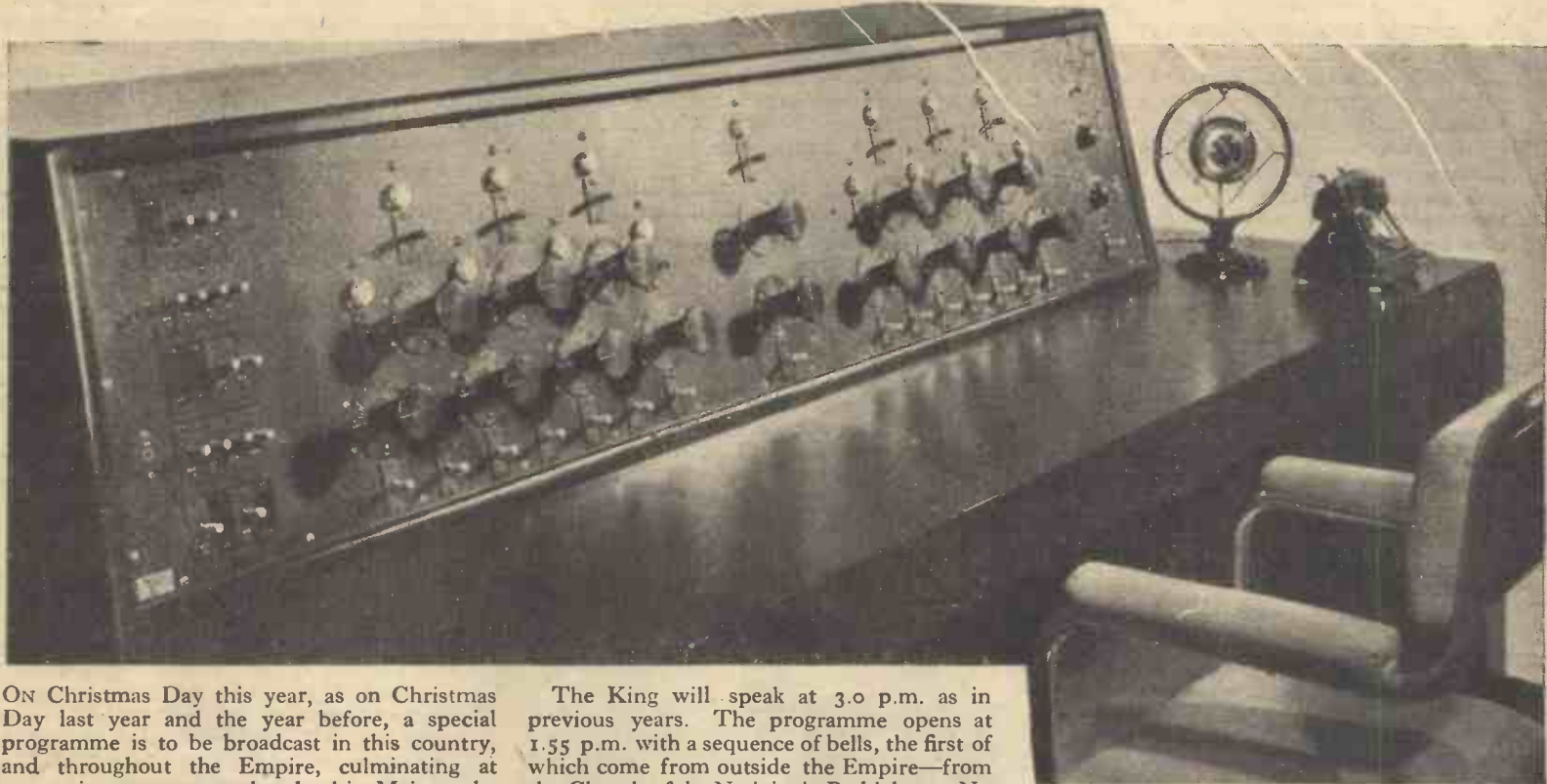
The output of the transformer on the moving-coil speaker or carbon microphone is brought to the pick-up terminals of the receiver. Where the house is wired for extension speakers the only adaptation required is to connect the receiver end of the leads to the pick-up terminals instead of to the output terminals, and to connect the microphone in one of the rooms to which the extension leads go. The programme is then reproduced on the receiver loudspeaker.

## Improvising a Studio

The room selected as a studio should not have an appreciable echo, as shown by preliminary tests with the microphone, or the resulting reproduction will sound hollow and may even be unintelligible. If the echo is bad, the microphone may be placed in a corner round which a screen covered with a rug or blanket has been placed, the amount of draping being varied until best results are obtained. A switch in the microphone circuit is a necessity, so that the latter may be cut out when the inevitable hitch occurs and the drapery falls down or someone rushes into the "studio" at a critical moment. There is a great deal of amusement in devising sound effects, and such things as bicycle pumps, whistles, scrubbing-brushes, sheets of sandpaper, and chains are invaluable.

For ghost stories, some of the drapery round the microphone may be removed and the echoes given full play, while sundry rattles on the chains, sighs from the bicycle pump, muffled shrieks from the whistle, and moans from a toy siren will add "realism" to the broadcast. If the guests are not told beforehand, the programme may start quite seriously with gramophone music and gradually become more improbable until it reaches a stage at which personal remarks about the guests may be included. Before the programme reaches that stage it is a wise precaution to lock the studio door!

# "EMPIRE EXCHANGE"



ON Christmas Day this year, as on Christmas Day last year and the year before, a special programme is to be broadcast in this country, and throughout the Empire, culminating at 3 p.m. in a message spoken by his Majesty the King from Sandringham.

In 1932 the programme "All the World Over," which preceded his Majesty's broadcast consisted of messages from Edinburgh, Belfast, Dublin, a ship at sea, Halifax, Montreal, Toronto, Winnipeg, Vancouver, Wellington (New Zealand), Sydney, Melbourne, Brisbane, the *Empress of Britain* at Port Said, Cape Town, and Sandringham.

In 1933 "Absent Friends" consisted of a number of broadcasts of Christmas scenes in representative parts of the home country, followed by Christmas greetings transmitted westwards round the Empire—from the Irish Free State, from Bermuda (representing the Colonies) from Canada, from New Zealand, from Australia, from India, and from South Africa to his Majesty the King at Sandringham. The home part of the programme occupied some forty-five minutes, and the Empire programmes some fifteen minutes.

## Countries Taking Part

This year the major portion of the programme is coming from the countries of the Empire. The five Dominions, India, and Southern Rhodesia will each contribute one or more scenes representing different phases of national life.

In view of the great difference of time between Australasia and Great Britain, special arrangements have had to be made for the contributions to the programme from Australia and New Zealand. As direct communication will not be practicable with New Zealand at the time of the broadcast on Christmas Day, use will have to be made of items recorded in advance in London over the beam telephone channel. In the case of Australia, as the sound-pictures of actualities represented in their contributions will not be available at the time of the broadcast on December 25 (which corresponds with midnight to 1 a.m. on Boxing Day in Eastern Australia), recordings of the items in Australia will be played in Sydney and transmitted to England over the beam telephone while the actual programme is in progress.

The King will speak at 3.0 p.m. as in previous years. The programme opens at 1.55 p.m. with a sequence of bells, the first of which come from outside the Empire—from the Church of the Nativity in Bethlehem. No bells could more appropriately ring in a Christmas programme! The sequence proceeds through the Afghan Memorial Church, Bombay; the National War Memorial carillon, Wellington; the carillon in the Peace Tower of Parliament House, Ottawa; the bells of Armagh Protestant Cathedral, Northern Ireland; St. Paul's Cathedral, London; to Big Ben striking 2 p.m. Greenwich Mean Time.

After an introduction from London, "Empire Exchange" will follow. Listeners will be able to hear presented in sound, pictures of Empire life brought to this country over the Post Office radio-telephone service. The whole programme will be transmitted to Australia, Canada, and South Africa, *via* Empire Exchange and the outgoing radio-telephone channels, while for general reception throughout the Empire, short-wave transmissions from the Empire Station at Daventry will be available.

The whole programme is made possible through co-operation between the broadcasting organisations throughout the Empire, and in Palestine, to wit, the Canadian Radio Commission; the Australian Broadcasting Commission; the African Broadcasting Company; the Department of Industries and Labour, and the Government of India; the New Zealand Broadcasting Board; the Postmaster General's Department, Southern Rhodesia; the Postmaster General's Department, Palestine; the Irish Free State Broadcasting Service; and the British Broadcasting Corporation, together with the Empire Post and Telegraph Administrations and the British Post Office.

Twenty-five different scenes will be presented to listeners—two from New Zealand, seven from Australia, two from India, three from South Africa, one from Southern Rhodesia, one from the Irish Free State, five from Canada, and four from Great Britain. The whole broadcast will be linked together from the London Studio. This is not intended to be a detailed programme, but the diversity of the scenes will be gathered from the following examples: dairy farming in New Zealand, a sheep drover in Queensland, the lumber industry in Quebec, an Indian Army

Officer speaking from the Khyber Pass, a native compound near Johannesburg, Chelsea Pensioners from London, Aran Islanders from the Irish Free State, to name but a few.

After his Majesty has spoken from Sandringham, the programme will conclude with the National Anthem.

Listeners will appreciate the complexity of the arrangements necessary to connect so many different and distant programme sources to make a homogeneous whole. If the programme is to be successful, one item must follow another without a break, and to ensure this the switching must be carried out speedily and noiselessly. In practice, one item is faded into the next, and there is no actual break. The Dramatic Control Panel, of which the B.B.C. can justly claim to be the pioneers, was originally designed to enable silent and speedy switching between a number of studios in the production of a radio play. Its use was soon extended to include programme items originating in London outside the studios themselves, and it was only a step further to extend its use to switching long-distance telephone circuits, whether land-line or radio. Two such panels were provided in Broadcasting House, and one was used for each of the special Christmas Day programmes in 1932 and 1933. Without a Dramatic Control Panel the production of so complicated a programme would be exceedingly difficult, and the smoothness which has been achieved in the past would have been an impossibility.

## The Dramatic Control Panel

The problem set to the producer is to select and combine the outputs from four studios in Broadcasting House, from five radio-telephone channels (Bethlehem *via* Cairo, Australia and New Zealand, India, South Africa and Southern Rhodesia, and Canada), from Big Ben, from three inland S.B. lines bringing the programme items from Ireland, Scotland, Midland and Northern England, and from two Sandringham lines. Each of these outputs is connected to one of the "channel fade" knobs on the Dramatic Control panel, and by a turn of the wrist to the right,

the programme on a particular channel is connected to the common output of the panel. Continuous variation of volume from zero to maximum is provided on each knob. A number of special arrangements such as "group mixers," etc., are also provided, but it is unnecessary to go into details of these to understand the general idea of the working of the panel.

It will be seen that some fifteen different channels are required on the panel to accommodate all the incoming circuits at once. The original D.C. panels at Broadcasting House made provision for only eleven channels. It became necessary in the course of normal development to provide a third D.C. panel and opportunity was taken to increase the number of channels to fifteen. The new panel incorporates a number of special features which experience has proved to be necessary in dealing with the output of the panel when connected to a radio-telephone circuit. Space has been left for the ultimate addition of four further channels, making nineteen in all. The photograph shows the panel which will be in use on Christmas Day. It has become necessary to provide a sliding seat for the producer, to enable him to keep all the panel within reach!

Thus far we have considered only the method of making up the composite programme from its constituent parts. There are, however, two further aspects which should be considered.

**Collection and Distribution of Programme**

One is the method of collection of the various items, so that they may be available at the inputs of the D.C. panel. The other is the method of distribution of the programme to listeners both in this country and overseas. Although these are best considered separately, for the sake of clarity, the one has an important bearing on the other, in that the cue for the start of each item is given by the last words of the previous item. It is therefore necessary

for each participating broadcaster to listen to the previous item, even if his own stations are not actually broadcasting the whole programme.

The diagram below shows the general arrangements for collecting the individual items of the programme and distributing the complete programme. The circuits from the studios are internal in Broadcasting House. Those from the provinces (one of which also gives connexion by line to the Irish Free State) are the normal S.B. circuits which are rented permanently by the B.B.C. from the Post Office. The circuits which give connexion to and from the distant Empire points and to Bethlehem run from Broadcasting House to the G.P.O. International Exchange Radio Terminal at Faraday Building. Faraday Building is connected by a number of lines to the radio receiving station of the General Post Office at Baldock, Hertfordshire, where the receivers, one for each circuit, are situated. Secondly, Faraday Building is connected by line to the radio transmitting station of the General Post Office at Rugby, Warwickshire, whence transmission is made direct to each of the distant Empire points and to Cairo, for Bethlehem.

In a normal commercial telephone call, both the incoming and outgoing speech are conveyed between the subscriber and Radio Terminal on one pair of wires, but for a special broadcast where a number of incoming circuits has to be switched to one or more outgoing circuits, the incoming and outgoing channels are kept separate and each is formed by a pair of wires. Yet other precautions have to be taken in order to avoid a circuit "chasing its tail." For instance:—Canada is taking the whole programme over the outgoing channel of the radio telephone circuit. Part of this programme consists of Canada's own contribution which is being received over the incoming channel of the radio-telephone circuit. Unless precautions

are taken, the outgoing and incoming channels will be connected together in London and Montreal so as to form a continuous loop, with the result that the circuit will howl. The new D.C. panel incorporates suitable arrangements for feeding each of the outgoing radio channels to the Dominions and to India through separate amplifiers, automatic switching arrangements being such that the circuit feeding Canada, for example, will not have the Canadian incoming channel connected to it.

**Transmitters Radiating the Programme**

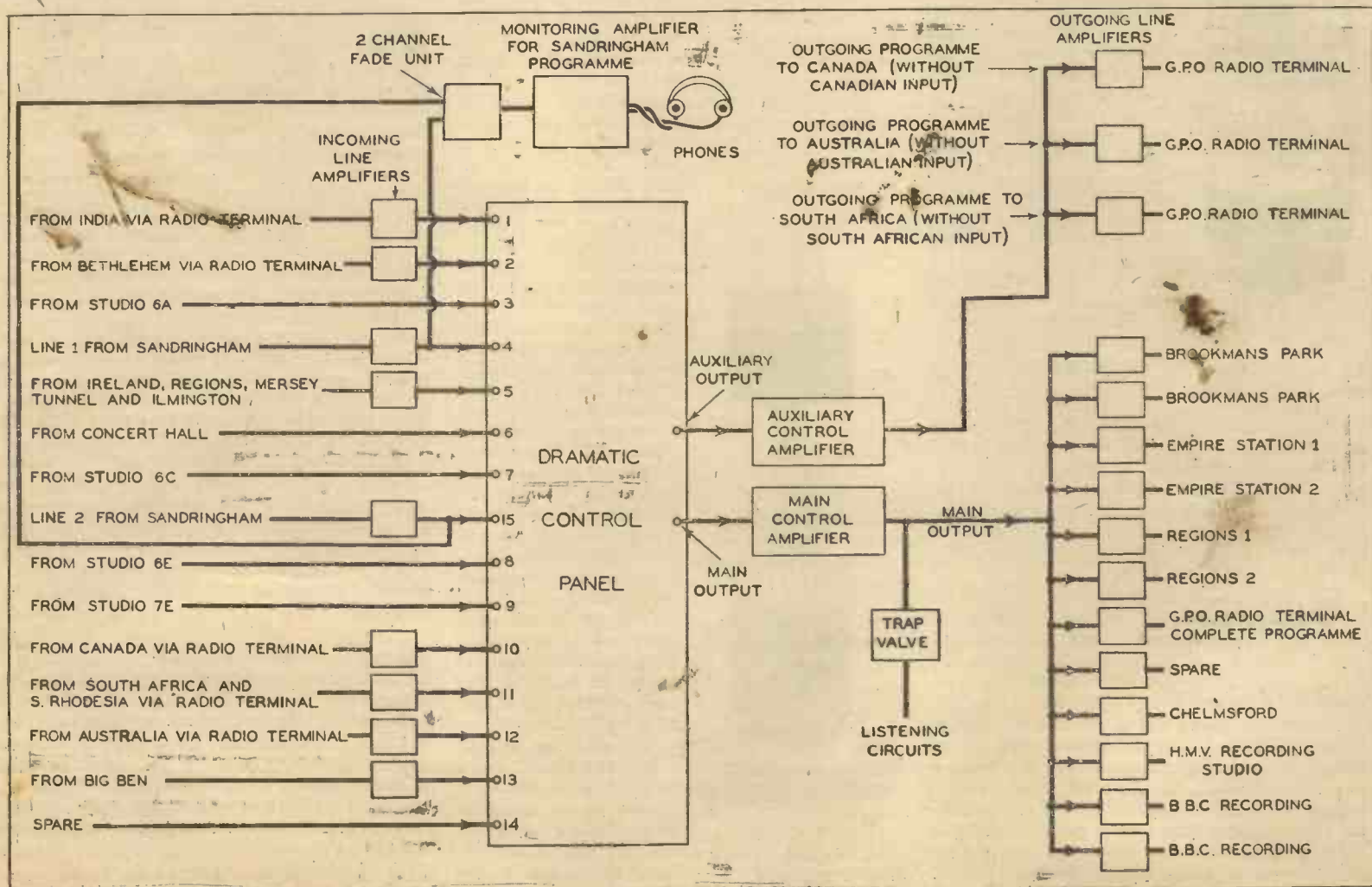
In addition to the B.B.C. transmitters, which will be fed over the normal S.B. network, and the networks of stations in Australia, Canada, and South Africa, which will be fed *via* the Post Office radio-telephone channels, the whole programme will be radiated by the two B.B.C. Empire short-wave transmitters at Daventry, and the old experimental short-wave transmitter G5SW at Marconi's Works, Chelmsford. Three short wavelengths, GSG, 16.86 metres, and GSB, 31.55 metres (from Daventry), and GSD, 25.53 metres (from Chelmsford), are being used simultaneously.

It is probable that GSG will be best received in Africa, the wavelength being the most suitable for transmission over this path at this time of the day. Furthermore, the aerial to be used at Daventry gives a concentration of radiation to the south and to the north.

GSD will probably give the best reception to the west of Daventry, and in addition this wavelength may be well received in Australia. An omni-directional aerial will be used.

GSB will have its direction of maximum radiation approximately to the east and to the west, and it is expected that this wavelength will be best received in India and the East.

It is probable that relays will be made in various parts of the Empire from these stations, notably in India, in Ceylon, and in the U.S.A.



# The Story of the Wireless Valve

By R. W. HALLOWS, M.A.

## 3-THE VALVE GROWS UP

We can now summarise the position as it was in the middle of 1927. Here are the salient points.

- (1) All valves in use were of the three-electrode type.
- (2) The dull-emitter had begun to oust the bright valve.
- (3) Two, four, and six volt filaments were struggling for supremacy, but opinion was already beginning to turn in favour of the two-volt valve.
- (4) Every valve still required a rheostat or a fixed resistance in its filament circuit.
- (5) Some specialised types of valves had been introduced. These included the medium-impedance valve for high-frequency amplification and detection, the high-impedance valve for resistance-coupled circuits, the first-stage L.F. valve, whose name explains its purpose, and the small power valve.
- (6) Magnesium "gettering" (this will be explained in a moment) had been introduced so that many bulbs had the silvered appearance which is now universal.
- (7) The "pip," once the most vulnerable part of the bulb, had been removed to a safer position out of sight beneath the valve cap.

(8) Owing to feed-back effects it was difficult even in neutralised circuits to employ more than two stages of high-frequency amplification.

The year 1927 marks another immense step forward in the history of the valve, for it was then that the screened-grid valve, another invention of Captain H. J. Round, made its appearance at the Wireless Exhibition. The original screened-grid, the Marconi S.625, is illustrated in Fig. 9, and Fig. 10 shows a later Cossor type with one set of its contacts inserted into a holder; two valveholders were required for each of these valves.

Fig. 9—First screened-grid valve—Marconi S.625

No one can deny that the screened-grid valve completely revolutionised the wireless set. The need for the neutrodyne arrangements and their fiddling adjustments disappeared, and it became possible to obtain a very high degree of amplification by means of stages of high frequency or intermediate frequency in cascade. But for the screened-grid valve it is probable that the superheterodyne receiving set could never have come into its own.

The principle of the valve was to interpose between the control grid and the plate a second screening grid; by this means the plate-grid capacity could be brought down to so small a figure that feed-back effects became negligible if ordinary precautions were taken.

The screened-grid valve was not the first to have two grids. The forerunner was known simply as the four-electrode valve. But whereas the extra grid in the screened-grid valve is placed between the control grid and the plate for shielding purposes, that of the four-electrode valve came between the filament and the control grid and served an entirely different purpose.

The electrons flung out from the glowing filament are probably actual charges of negative electricity. In any case they are negatively charged and therefore repel each other strongly. Hence electrons close to the filament increase by their repulsion the speed of those that are already on their way to the plate. The latter, however, exert a kind of back pressure on the electrons near the filament, damming the stream to a considerable extent. It is to overcome this damming or "space-charge" effect, as it is known, that a high positive voltage is required on the plate.

The inner grid of the four-electrode valve was given a small positive charge; it thus helped to free the electrons immediately surrounding the filament, and quite a small plate voltage was sufficient to maintain a copious stream.

Mention was made at the beginning of this article of the "gettering" process. In all early valves the vacuum was obtained simply by pumping. This was not completely satisfactory because appreciable quantities of gas were "occluded" or held bound in the pores of the plate and other metal parts within the bulb. When these parts warmed up as the valve was in use, the occluded gas was gradually released and in course of time the valve became soft.

Magnesium gettering is a most ingenious invention. Before the electrodes are sealed into the bulb a small piece of magnesium is spot-welded on to the plate. The bulb is then pumped to as hard a vacuum as possible and sealed off. The valve next passes into a high-frequency "field" of such intensity that the eddy currents induced in its metal parts cause these to glow brightly. The occluded gases are released and move freely inside the bulb. But as the temperature rises the magnesium suddenly volatilises. The minute fragments of metal fly outwards, seizing the gas molecules as they go. They then settle on the inside of the bulb, holding the gas molecules firmly embraced. The bulb never becomes hot enough in a well-designed valve for the gas to be released, and the vacuum therefore remains hard.

Towards the end of 1927 I can, I think, claim to have been the only person to be using in this country a valve which, though it was the lineal descendant of the

screened-grid valve, was in many ways even more remarkable. The valve was in fact the pentode, which had been developed in Holland. It did not actually appear as a legitimate British valve until the Wireless Exhibition of 1928.

The screened-grid valve owing to its peculiar characteristics is useless, or very nearly so, as a low-frequency amplifier, for it can handle only very small grid circuit impulses.

One of its peculiarities is that the stream of electrons reaches such a speed that on their arrival on the plate they literally knock other electrons out of the metal, producing what is known as a secondary emission. Some of the latter are attracted to the positively-charged screening grid, with the curious result that between certain values an increase in the plate voltage produces a decrease in the plate current.

In the pentode a third, or auxiliary, grid is placed between the screening grid and the plate. It is connected inside the bulb to the filament and is thus at a negative potential with respect to the plate. Thus electrons driven from the plate by the impact of others are prevented by the repulsion of the auxiliary grid from straying away, and return to their proper plate. The net effect is that there is no longer a "kink" in the characteristic curve; the pentode, therefore, can handle quite large grid circuit impulses. Further, owing to the arrangement of the electrodes a very high degree of magnification in the output stage became immediately possible.

The first pentode seen in this country was the Mullard Pentone. This, as Fig. 11 shows, had the ordinary four-pin base, the connexion for the screening grid being brought out to a terminal at the side of the cap. The great advantage of this arrangement was that the valve could go straight into the output holder of an existing set, no further alteration being required than a wire from H.T. positive to the side terminal and, of course, a specially wound output transformer.

The pentode was not at first popular. Its price was high, and, as many found to their cost, it was an easy valve to wreck in a moment of thoughtlessness. Any disconnexion in the plate circuit whilst the filament current is flowing can cause enormous voltages to be set up within the valve with disastrous results.

However, the pentode developed fairly rapidly as time went on into a robust and efficient valve, and certain types particularly economical in their high-tension current requirements were introduced. One of these was the Mazda Pen 220. With 120 volts on the plate and a high-tension current drain of only 5 milliamperes it was capable of nearly half a watt of undistorted output.

Meanwhile, in the two-volt range, to which most makers were now devoting the greater part of their attention, big advances were made in many ways. New methods enabled the electrodes to be locked into position so that they could not move as the valve aged. In many early valves it was no uncommon thing for the filament to sag on to the grid, and even for the grid to come into contact with the plate. One of the earliest systems of locked electrodes was the Cossor, illustrated in Fig. 12.

(To be concluded)



Fig. 11—Mullard pentode valve

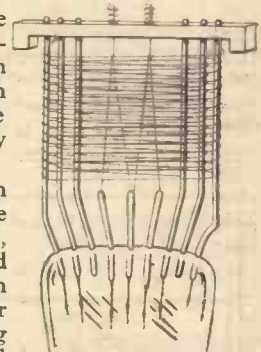


Fig. 12—Electrode construction of Cossor valve



Fig. 9—First screened-grid valve—Marconi S.625



Fig. 10—Cossor screened-grid valve

# A Technical Hitch or the Announcer who had Hiccups

By "DECIBEL"

*We have received this story from our contributor, "Decibel," but we find it hard to believe that the remarkable series of events he describes ever took place at any broadcasting station, even in the very early days of broadcasting. We leave our readers to judge for themselves whether or not "Decibel" has simply allowed his imagination to run riot.*

Did you ever hear the story of the wireless announcer who had hiccups? I don't suppose you did. The local newspaper published an account at the time, but it was largely incorrect;



and the national dailies didn't even mention the affair. They were full of a murder trial or something of that kind which was going on just then.

It is an amusing story, so here it is, told in full, for the first time.

One Christmas Eve, a few years ago, when broadcasting was in the very early stages of its development, the announcer at one of the provincial stations was playing a few gramophone records to fill in the programme before the late dance music was received from London for relaying from the local transmitter. He and the engineer on control were the only two members of the staff on duty. As the main part of the programme was over, and as it was also Christmas Eve, everybody else had gone home. There had been trouble with the transmitter that day, and the Engineer-in-charge and several members of the engineering staff had been working on it until fairly late in the evening. In fact, the E.I.C. had only just gone home.

The one and only studio at this station was adjacent to the control room, with a window in the dividing wall. This was the usual arrangement in those days, so that announcers and control-room engineers could see each other.

## Hiccups at the Microphone

The particular announcer on duty this Christmas Eve was a most conscientious person, and, furthermore, he was a life-long teetotaler; so it was a most cruel fate that suddenly inflicted a violent attack of hiccups on him as he was in the middle of announcing the name of the record he had just played. He struggled through the announcement somehow, put on another record, and dashed into the control room to get the control engineer to go into the studio and carry on with the announcements.

The control engineer had, of course, heard the hiccups through the headphones with which he was listening to the programme, and immediately realised what was wanted of him. Off he went into the studio, and the announcer took his seat at the control table. There was nothing very remarkable about this interchange of duties in those days. The staff had to be fairly versatile and were always ready to lend each other a hand:

Just as the announcer had taken his seat, the telephone bell rang. The Station Director, who was celebrating Christmas Eve by having some friends in for the evening to listen to the wireless, had rung up to find out what all the hiccups were about. To his amazement he found that not only had the announcer got

hiccups but apparently the control engineer had them also; for the Station Director did not realise that the control engineer's place had been taken by the announcer. He might have done so if he had had time to think, but just as he was trying to get some sense out of his telephone conversation he was horrified to hear a sudden increase in volume from his loud-speaker and then—silence. The transmitter had shut down!

He hung up the telephone receiver, grabbed his hat and coat, apologised to his guests, and dashed out at the back door. Now this particular Station Director lived about two miles from his station, and travelled to and from work on a bicycle. So it was to the garden shed where he kept his bicycle that he hurried.

Then began the Station Director's ride through the sleet and slush to save his station. For about half a mile he made good progress, then he felt his front wheel going bumpety-bump over the cobble-stones of which most of the roads in the town were constructed. The tyre was flat. He jumped off his bicycle and set to work with the tyre pump. It was no use; the tyre was punctured. He jumped on again and rode a few yards, but it was impossible to cycle on those cobble-stones with a flat tyre. He was nearly shaken to pieces. There was nothing for it but to walk and wheel his bicycle. So let us leave him for a while and see what the Engineer-in-charge was doing.

On arriving home about ten o'clock, the E.I.C. had decided that a hot bath was the first thing he wanted after his hard day's work. And it was while he was lying in the soothing water that he heard the sad news that the transmitter had shut down. His wife, who had been listening downstairs to the wireless, knew of the trouble the transmitter had been giving, and she dashed upstairs to inform her husband of what had happened.

Out of the bath he hurried, wrapped a towel round his streaming body, flung on his dressing-gown, and ran downstairs to the telephone. But he received no more satisfaction from the control room than the Station Director had done, so there was nothing for it but to get dressed and dash off to the station to see what was the matter.

Now the E.I.C., being more mechanically-minded than the Station Director, preferred a motor-car to a bicycle, and was the proud possessor of a rattling old car which, in spite of its appearance, could usually be depended on to transport its owner between two given places, provided that adequate time was allowed to cover stops for picking up and replacing pieces that had fallen off.

It was usually an easy matter to start the engine, so long as a certain procedure was adhered to. Nine times out of ten the engine started immediately, and the tenth time was usually almost as easy. But if by any chance this procedure was not accurately followed there was trouble.

This Christmas Eve the E.I.C., after dashing round to his garage which was a little way from his home, in his haste forgot to close the strangler or something, and got the cylinders

filled with a mixture that simply refused to fire. He cranked and cranked, adjusted the controls time after time, and did all the usual things that one does in such circumstances, but there wasn't a sign of life from the engine. Finally, he decided that he would have to go on foot.



The transmitter was some distance from the control room and studio, and farther away, so the E.I.C. set out for the control room. He walked and ran alternately, and not being used to this kind of locomotion, he was soon puffing and panting and perspiring profusely.

Now let us see what had been happening in the control room. While the announcer was endeavouring to make himself understood on the telephone to the Station Director he had taken his eyes off the flicking needle of the meter which indicated the strength of the signals being fed to the transmitter. It was the control engineer's duty to adjust the strength by means of a knob, so that the needle did not flick past a certain mark. A strength greater than this overloaded the transmitter and was liable to cause a breakdown.

## What Happened in the Control Room

Just at the crucial moment there was a particularly loud passage on the gramophone record then being played in the studio, and the needle of the meter flicked violently. The announcer happened to notice it while he was speaking to the Station Director, and in his excitement turned the knob the wrong way, with the result that the transmitter was violently overloaded and put out of action. The announcer was not aware that he had done any damage to the transmitter, and rectified his mistake by turning the knob the opposite way.

A few minutes later, however, the engineer at the transmitter, having got the transmitter going again, rang up to ask what the blankety-blank was happening at the control room. The position was explained to him by the control engineer, who had just given the final announcement and returned to the control room to fade in the dance music from London.

Everything then settled down to the normal state of affairs, and the announcer with his hiccups departed for home. Just as he was leaving the building, however, and had locked the door behind him, he was met by a reporter from the local newspaper, who had come to investigate the mystery of the hiccups at the microphone and the breakdown of the transmitter. The only reply the reporter could get to his questions was some uncomplimentary remarks punctuated by hiccups after almost every word. Thereupon he jumped to the conclusion that the announcer had been celebrating Christmas Eve and had been drunk on duty. Not being able to get into the building to obtain further information, he returned home.

Just as the control engineer was making himself a cup of tea the Station Director arrived and was followed a few minutes later by the

(Continued in col. 1, page 893)



# Meters and the Wireless Set

By A. W. BEATT

*A suitable meter is a very useful accessory for keeping a wireless receiver up to scratch. This article gives helpful information as to the best type of meter for the purpose, and indicates the uses to which it can be put.*

WITHOUT the aid of a measuring instrument of some description we are completely at sea with regard to the performance of any item of electrical apparatus, and particularly that of a wireless set, which has numerous circuits working at different voltages and consuming varying amounts of current, all of which must be kept within well-defined limits if the best results are to be obtained.

It is exceedingly difficult to judge the performance of a receiver by ear, and when the reception appears to be gradually falling off, a meter will show whether the fault is in the failing emission of the valves, or whether one may look elsewhere for perhaps failure of the aerial insulation or of the earth connexion, or the weakening of the loudspeaker magnets. The ear has a tendency to gild the past, and one may imagine that reproduction or signal strength is falling off, when, in reality, there is nothing the matter, and no cause to rush off to purchase an unnecessary and expensive set of new valves.

Particularly in the case of a battery set, a quite inexpensive meter may save its cost in a short time through checking the grid-bias and high-tension voltages alone, the former being, in the writer's experience, the cause of countless prematurely aged output valves and run-down H.T. batteries, particularly in these days of variable- $\mu$  valves and class "B" and Q.P.P. outputs.

## Types of Meters Available

A good meter will give many years of service, so that its first cost is practically its only cost. Meters for amateur use are obtainable at prices varying from about ten shillings to ten pounds or more. The low-priced instruments as a rule have three ranges, two of volts and one of milliamperes, the milliamperere range possessing a comparatively high resistance, while the voltage range is of too low a resistance to make accurate measurements of H.T. voltage unless certain precautions are taken. However, if it is a question of a cheap meter or none at all, it is much better to purchase the cheap meter so long as we realise its limitations.

At the other end of the price scale are the comparatively expensive multiple meters, with the aid of which almost any test required on a wireless set may be carried out. Some of these meters are fitted with a small rectifier so that they may be employed for the measurement of A.C. as well as D.C. voltages and currents, and, with the aid of a 50-cycle A.C. supply, measurements of inductance and capacity are possible. A small self-contained battery provides current for resistance measurements.

Another use to which one of these universal meters may be put is that of output meter when connected through a suitable circuit to the loudspeaker terminals of the set, and in the latter position it greatly simplifies ganging operations. When purchasing a meter one should choose the most expensive instrument one can afford, because of the greater number of tests it is possible to carry out with a sensitive instrument.

The internal resistance of a milliammeter should be as low as possible, so that it will not alter the characteristics of the circuit in which it is included. On the other hand, the internal resistance of a voltmeter should be as high as possible. An internal resistance of 1,000 ohms per volt is necessary if anything approaching

accurate measurements are to be made of voltage at the anode of a valve under operating conditions. A meter of this resistance will consume 1 milliamperere on full-scale deflection.

A medium-priced instrument will have a resistance of 200 ohms per volt and take 5 milliamperes on full deflection, while a cheap instrument may have a resistance of only 30 ohms per volt, or even less, and will take at least 30 milliamperes on full-scale deflection.

It is not very difficult to make up a multiple instrument one's self, with a sensitive milliammeter and a few fixed resistances, as described in WORLD-RADIO for June 22 and 29, 1934.

Perhaps the greatest use of the meter will be in checking the various battery voltages in a



Adequate metering is a necessity with power switchboards or transmitting apparatus

receiver, and checking the emission of the valves. The simplest method of checking the valve emission is to measure the anode current of each valve when first installed, and to write or type it on a slip of paper which is then gummed to the valve concerned. In mains sets the anode current only may be recorded, but in battery sets the H.T. and L.T. and G.B. voltages should all be recorded, so that subsequent tests may be carried out under similar conditions. A small chart fixed inside the receiver will serve instead of marking each valve separately.

The method employed by the present writer for checking anode current, consists in connecting a closed circuit jack in the H.T. supply to each valve. When the milliammeter is connected to a jack plug, it is a matter of a few moments to check each valve, and faults may often be located in a few seconds with the minimum of trouble. An alternative method is to supply each anode through a fuse, either flashlamp bulb or tubular fuse, and to connect the meter across a blown fuse. By withdrawing a fuse and plugging in the meter the tests may be made. The advantage of these methods is that tests may be made in a part of the circuit in which the receiver is least likely to be upset, i.e. on the supply side of the decoupling resistances.

For those who have commercial receivers and do not want the trouble of circuit alterations, there are numerous types of adaptor that may be plugged into the valve socket, while the valve is inserted either into the adaptor or into a socket provided on the meter. With these adaptors tests may be made either of all the valve voltages and currents under actual operating conditions, or simply the anode current, depending on the adaptor and meter used.

When employing one of these adaptors, care should be taken that the leads do not interact with any other part of the circuit, or oscillation may occur and render the observations inaccurate. If the loudspeaker is left on during the tests it should be possible to ascertain by ear whether any such interference is taking place.

In some meters and adaptors provision is made for the connexion of batteries for measurements of the anode current of a valve at zero grid bias and 100 volts on the anode, for comparison with the figures given in the manufacturer's leaflet. With L.F. valves this test should be carried out in as short a time as possible, to avoid damage to the valves through excessive current. It is usually unsafe to test output valves by this method.

Measurements of the voltage at the anode of a valve should only be made by means of a 1,000-ohms-per-volt instrument; and even then readings may be made more accurate with valves consuming 2 milliamperes or less, if a resistance equal to the internal resistance of the meter is connected in series with it. Thus, when measuring a voltage of 120 volts on a 1,000-ohms-per-volt meter with a full-scale reading of 150 volts, the current consumption will be 4/5 milliamperere; but, by connecting a resistance of 150,000 ohms in series with the meter, and multiplying the reading obtained by two, we obtain a result of 120 volts with a consumption of only 2/5 milliamperere. The resistance used must, however, be at least as accurate as the meter. Where a multiple meter is employed it may be possible to use a higher scale, say a 300-volt scale instead of the 150-volt scale, and so render a resistance unnecessary.

## Resistance Tests

Meters with an ohms scale are very useful for continuity testing as well as for testing doubtful resistances. The current for resistance tests being obtained from a self-contained battery, those meters with provision for zero adjustment are the more useful, since a run-down battery will give inaccurate results unless some allowance is made for it.

One of the useful tests to be made with the resistance range is that of contact resistance of the wave-change switches. Such switches are often a source of unsuspected trouble, and should be inspected periodically. If the meter is connected across each pair of contacts in turn it should give a zero reading when the switch is closed, and the needle should not flicker when the switch knob is gently rocked. The switch test will be more conclusive if the switch can be disconnected from the coil. Alternatively, the meter may be connected across the coil, when the resistance will be observed to fall considerably when switching from the long waves to the medium waves, where it should remain steady if the contacts are good.

There are a few things to remember when testing wireless sets. When in doubt, the first test should always be made on the highest scale of the meter, and the change to a lower scale should only be made when it is certain that the current or voltage is within this scale. There is a fuse in every good instrument, but one should never be so careless as to blow it. Smoothing condensers take a heavy current

(Continued at foot of col. 3, page 895)





"AD"



PRIMARY CELLS

**NO CONSTANT CELL CHARGING**

Probably your difficulty is an up-country one—a battery problem. Accumulator charging is not an easy proposition, being so far away from the station. If, however, you use an "AD" (Air-depolarising) primary battery, this difficulty is solved. "Neutron" in his columns months ago commended this Salammoniac cell to you.

Briefly, the "AD" Radio Power Cell is:—

- (1) Large primary cell using as solution either (a) Caustic Soda and Water, or (b) Salammoniac and water, lasting 500 ampere hours for each cycle.
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- (3) At your set is probably a 2 Volt one, two of these "AD" cells No. 218 (Caustic Soda) or No. 222 (Salammoniac) will serve.
- (4) Installation extremely simple—NO MAINTENANCE.

"AD" Cells operate world widely on British, Colonial and Foreign railroads, etc., so their efficiency is assured to you.

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INCREASE THE RANGE OF YOUR PRESENT SET by using the Unit Radio short-wave converter adapter. For use with any receiver, straight or superhet. Complete in walnut cabinet, as illustrated. NO EXTRA BATTERIES REQUIRED.



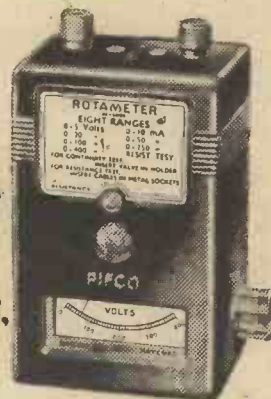
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**"A great 'Xmas present. Dad..."**

THE eyes of the Radio enthusiast will sparkle with delight at the sight of a Pifco **42/** ROTAMETER De Luxe. This wonderful instrument enables every kind of test to be made and saves much valuable time in the tracing of Radio faults. It is finished in black bakelite, and supplied complete with leads, in velvet-lined case. The turn of a knob brings the required scale into operation. See this Radio necessarily at your dealers or write for the new Testmeter Folder to PIFCO LTD., SHUDEHILL, MANCHESTER, or 150, Charing Cross Road, London, W.C.2.

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**SPECIALISED TRAINING**

WIRELESS.—Youths trained for all Branches of this progressive profession under ideal conditions. Boarders accepted. Training fee can be paid after appointment. Prospects free.—Wireless College, Colwyn Bay.

A COMPLETELY new edition (new in presentation, revised and brought absolutely up to date in every particular) of the World-Radio Station Identification Panels booklet has just been issued by the B.B.C. If you listen to foreign stations then you will find this booklet indispensable: it gives every possible detail for the identification of elusive stations, both on the normal, long, and medium wave bands and on the short waves. A large and very useful "Radio Map of Europe" is included (size 16 3/4 in. by 21 in.). The price of the booklet is One Shilling (post free) from the B.B.C. Publications Department, Broadcasting House, W.1.

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Works on all Receivers. No Alterations. Complete with Transformer.

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# Random Recollections of a B.B.C. Engineer

THE first proper headquarters of the B.B.C. were situated at Savoy Hill, adjacent to the building of the Institution of Electrical Engineers, where the technical facilities at first consisted of an amplifier room at one end of the building and a simultaneous broadcast switchboard of very elementary nature at the other end, the two being connected by cables running across the roof.

One had to be most careful not to speak above a whisper in the amplifier room, or to make a noise with a chair or one's feet, otherwise the valves in the microphone amplifier "ponged" so violently that a noise like a peal of bells went out on the transmission!

Only one studio was available at that time, and the limited scope provided thereby was soon insufficient for the ever-growing requirements of the people responsible for programmes. A second and much larger studio was built, and at the same time, the microphone amplifying equipment was divided into two units, termed the "A" and the "B" amplifier respectively.

The A amplifiers were installed in small lobbies adjoining the studios, and two B amplifiers were set up in a room next door to the simultaneous broadcast switchboard. Very shortly the S.B. switchboard was dismantled and re-erected on a wooden rack in the same room as the amplifying apparatus, the whole job being accomplished in a single night, as the result of the exertions of the small band of engineers who were then attached to the London Station. In this way, what may be described as the first real control room came into being.

## Early Days at Savoy Hill

A most amusing incident which might have had serious repercussions, but which fortunately passed off without untoward consequences occurred at this time. A very swagger new composition floor, some two inches thick, was being laid in the control room, and the workmen, having imparted the last exquisite touches with their trowels, had knocked off for the night. Several stout planks across the room were provided so that people might walk in and out, and everyone had been to infinite pains to prevent anything being dropped that might leave a blemish on the new floor.

At about 10 o'clock in the evening a lady, accompanied by a gentleman, came unannounced into the room. The lady stepped straight into the middle of the beautiful floor, her dainty high-heeled shoes sinking to the brim in the plastic half-set composition. Instantly one of the engineers, whose nerves had obviously been frayed by a wearing evening, engaged, apart from his ordinary duties, in keeping watch over the virgin floor, tore his hair and shrieked out an extremely unparliamentary exhortation, obviously most unsuitable for the ears of this charming lady.

Everyone was thunderstruck, and as for the unfortunate offender, he looked as if he would have liked the earth to open and swallow him up. A moment later, however, both the lady and her escort were apologising in voluble French, having apparently no word of English. It was afterwards discovered that the lady was a distinguished foreigner, rumoured to be of royal descent, paying an informal visit to Savoy Hill during her stay in this country.



Not long after this the control room equipment was greatly improved, central high-tension and low-tension batteries being installed, and the apparatus mounted on neat benches arranged round the walls of the room. These benches were to be covered with smart linoleum, and in this connexion a ludicrous incident occurred. A doubtless estimable, but, it must be whis-

pered, somewhat bumptious little man came from the lino vendors to measure up the bench tops for the fitting of the lino.

On the ends of these benches were strips of terminals connected through stout cables to the 300-volt H.T. accumulators which formed the central battery. It must be understood that this battery was no miserable 1-ampere-hour affair, but a group of stout and self-respecting cells of some thirty or forty ampere-hour capacity, capable of driving some hundreds of amperes through any short-circuit that came upon them. Now the lino man was duly warned about the presence of good volts on these terminals, but, with scant ceremony, he brushed this well-meant advice aside, and bustled round, measuring away, and writing it all down in a little book. It should be mentioned that he wore a heavy and imposing gold Albert hanging in a graceful catenary across his expansive vest.

Very soon the inevitable happened, and the massive gold chain came in contact with the aforementioned battery terminals. There was a brilliant flash, a great roar, and the unfortunate man staggered back with a blackened face. Two little links dangling from his waistcoat pocket were all that remained of his beautiful watch-chain.

Of course everybody laughed, and the more they laughed, the more he stormed, until finally he stamped out shouting that he would have the "lor" on them all.

At about the same time experiments were on foot at the Chelmsford works of the Marconi Company, to arrive at a suitable design for a high-power long-wave station. A transmitter, which was the original 5XX, was constructed in one of the laboratories, and several water-cooled valves, which then had only just been introduced, were employed. The main tuned circuit coils were wound with stranded conductor, to which the anode tap connexion was made by sticking a good-sized pin into the stranded wire. That pin performed signal service the whole time that 5XX, Chelmsford, was in operation, and, apart from running red-hot on occasions, never gave any trouble.

The various power supplies to the transmitter were controlled by means of ordinary knife switches. Each switch had a cord tied to its handle, and all the cords were bunched into a rope which, in emergencies, could be pulled, thus bringing out all the switches instantly.

The first transmission was given a good deal of publicity, and Press representatives were

swarming about the place, whilst a famous vocalist gave a recital in a small studio which was specially rigged up for the occasion. It so happened that the man in charge of the transmitter was a nervous individual, and he never let go of the safety cord for a moment. While he watched with grim intensity, a Press photographer came up behind him, quickly set up his camera, and, entirely without warning, let off a flashlight. The unfortunate engineer nearly pulled the switches off the panel, thus marring regrettably the opening transmission.

Profiting by the experience gained at Chelmsford the B.B.C. decided to build the new high-power station at Borough Hill, Daventry; on the site of a prehistoric fortress. Life flowed on pretty smoothly on Borough Hill for some months after the opening, until in the winter of 1926, the smooth and well-ordered existence of the staff was rudely disturbed. One frosty night the rare condition known as "silver thaw" set in. This is quite common abroad, but is only seen on isolated occasions in this country, and seldom to the extent to which it existed on this night in 1926. "Silver thaw" consists of a growth of fuzzy hoar-frost crystals on outdoor objects, such as twigs of trees, and particularly on aerial wires.

## A Silver Thaw at Daventry

On this occasion frost crystals collected on the aerial to such an extent that the diameter of the wire was increased to about two inches. The extra weight on the aerial must have been enormous, for the aerial finally carried away and fell down in the night. The next morning the staff awoke to the sorry sight of part of the aerial lying on the ground and the rest of it wrapped round the stays and other wires.

The question was, how to get some sort of aerial up before the programme started, and it

was decided to run up a temporary aerial for use until such time as the main aerial could be remade. For this aerial some stranded galvanised iron wire was used, the coating of zinc being relied on to keep the high-frequency resistance within the bounds of reason. This assumption appeared to be justified, as good results were obtained with the new aerial—at first. During the day, however, the engineer

on duty at the transmitter noticed that conditions were slowly changing all the time, and he was compelled to make continuous adjustments to the aerial tuning in order to keep the apparatus in any sort of trim. No one could understand this, and in the evening all were scratching their heads very considerably over the matter, when suddenly the door burst open and the night-watchman rushed in shrieking that the "aerial were afire!" Of course, everyone dashed out at the double, and sure enough the aerial was red-hot for at least 200 feet up the down-lead. What had happened was that the galvanising had slowly burnt off and left the high-resistance iron wire to carry the current unaided. The next morning the proper aerial was re-erected, but the awe-inspiring sight of a down-lead looking like a red-hot poker sticking up into the sky will long be remembered.

A few months later rather serious trouble occurred in connexion with the valve cooling water system. The water was contained in a



# A WIRELESS ALPHABET

BY "DECIBEL"

simple concrete pond and circulated through the valves by means of a pump, insulation being maintained by the use of sprays on the inlet and outlet of each valve jacket. A plague of frogs descended on the site, and some of these little fellows, imbued apparently with the spirit of *felo-de-se*, jumped into the pond and died.

As the result of decomposed frogs, the water swiftly became definitely insalubrious and, moreover, it was well nigh impossible to prevent the valve sprays becoming stopped up. It was decided to pump the pond dry, and, having cleaned out the dead frogs, to pump the pond full from a reservoir which existed some distance down the hillside, afterwards covering in the top with wire netting to defeat the suicidal efforts of the frogs.

The water was to be raised from the lower reservoir by means of a portable petrol-driven pumping engine, and all went well until about a foot of new water had been pumped in, when the engine gave a few despairing hiccups and finally and irrevocably died, with something hopelessly wrong with its inside.

Here was a fine state of affairs, only a foot of water in the pond and at least three feet required to operate the water system. The transmission was due to start in a few hours, so what could be done? A brilliant idea struck someone, and in five minutes everybody was rolling huge snowballs from every direction all over the site. Some of these were six feet in diameter, but one and all were dumped unceremoniously into the pond and rendered down with a blow-lamp. The situation was saved, but it was surprising to see how little water came from a really large snowball.

**FROM MICROPHONE TO LOUDSPEAKER**  
*The first of a new series of articles, describing in non-technical language how wireless programmes reach the listener's loudspeaker, will appear NEXT WEEK.*

## A TECHNICAL HITCH

(Continued from page 889)

E.I.C. Both were greatly relieved to find that the position was not as serious as they had imagined, but, of course, they were not in the best of tempers at having had to turn out on such a filthy night for nothing.

They sent the control engineer to get some more water so that they could join him in a cup of tea, and proceeded to dry the legs of their trousers in front of the electric radiator. A few minutes later the engineer at the transmitter rang up, and the E.I.C. picked up the 'phone. An irate engineer at the other end—believing, of course, that he was talking to the control engineer—then proceeded to tell him what he thought of him in language more expressive than polite. Apparently the transmitter had shut down once more, owing to an overload while the control engineer had been fetching the water for the tea.

After a rest and several cups of hot tea the Station Director and the E.I.C. turned out again into the cold and slush and returned to their homes. Both spent Christmas Day in bed with very bad colds.

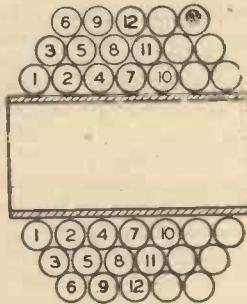
The local reporter endeavoured to obtain further details of the affair next day, but was unsuccessful, and his paper came out with a story of mysterious happenings on Christmas Eve, and hints of a drunken announcer, without committing itself too much.

The official record as given in the station log read somewhat as follows:—

- 10.23 Transmitter shut down owing to overload.
- 10.27 Transmitter started up again and programme continued.
- 10.54 Transmitter shut down owing to overload.
- 10.58½ Transmitter started up again and programme continued.

**Bank.**—A number of condensers or cells connected together to form a single unit.

**Bank Wound Coils.**—A method of winding a coil in layers in a special manner, so that turns near the beginning and end of the winding do not come close together. This reduces the self-capacity of the coil.



**Barretter.**—A device for keeping constant the amount of current flowing in a circuit, irrespective of any changes in voltage (within limits) applied to the circuit. It consists of a thin wire, such as iron, enclosed in a small tube filled with hydrogen. The resistance of this wire increases if the current increases, and decreases if the current decreases, thereby tending to keep the current constant.

**Battery.**—A number of primary or secondary cells connected together. A dry battery consists of a number of primary cells which generate electricity by chemical means and cannot be recharged. Pastes are used instead of liquids, hence the term dry. Batteries of this type are largely used for H.T. and grid-bias supplies to wireless receivers. Inert batteries are of similar chemical composition, but can be kept for long periods without deterioration before being used, because the chemicals do not become active until water is added. Air-cell batteries are somewhat similar in composition but are capable of supplying larger currents for longer periods owing to the use of a special electrode consisting of porous carbon. This absorbs air from the atmosphere to assist the necessary chemical changes.

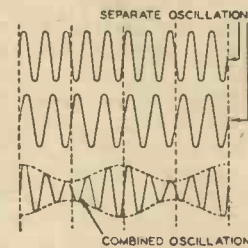
**Battery Eliminator.**—A device for utilising electric light mains to supply anode current to a receiver, instead of using a high-tension battery. In the case of direct current mains the battery eliminator consists of smoothing circuits composed of chokes and condensers, to smooth out any ripples or small fluctuations in the mains voltage. Where the mains supply is alternating current, the eliminator contains also a rectifier for converting the alternating current to direct current. The eliminator usually contains in addition a number of resistances to reduce the voltage to values suitable for the various stages of the receiver.

**Beacon, Radio.**—Round the coast of the British Isles are a number of wireless stations or radio beacons which enable ships to determine their positions. Some of them employ a rotating aerial system to send out a rotating wireless beam so that ships in the vicinity not fitted with special direction-finding apparatus can ascertain their position. Special signals are sent out by these stations so that ships can tell what is the direction of the beam at the moment they hear it. Other beacons without rotary beams are used by ships equipped with D.F. apparatus.

**Beam Wireless.**—Wireless communication in which the transmitting aerial is arranged to concentrate the wireless waves it radiates into a beam for communication with a particular station which employs a similar kind of aerial for reception purposes. This system is used for communication on short waves.

**Beat Reception.**—When two waves or oscillations of any kind are combined, the complex

wave or oscillation produced varies in strength at frequencies equal to both the sum and difference of the two component frequencies. This "beat" effect is often heard as a throbbing sound when two organ notes of nearly the same frequency are played. The principle is employed in wireless reception to change the frequency of received signals to a higher or lower frequency as in super-heterodyne receivers, by adding a second oscillation which is produced by suitable apparatus forming part of the receiver.



**Bel.**—A unit used to measure the difference between two powers, such as the power input to a telephone line, and the power received at the far end. The loss or gain in power in bels is equal to the logarithm to the base 10 of the ratio of the two powers. In practice a decibel, or one-tenth of a bel, is the unit employed, and the formula is, therefore:—

$$\text{Number of decibels} = 10 \log_{10} \frac{P_1}{P_2}$$
 where  $P_1$  and  $P_2$  are the two powers concerned. Thus, if  $\frac{P_1}{P_2} = 1,000,000$ ,  $\log_{10} 1,000,000 = 6$ . Therefore the number of decibels = 6. If voltages instead of powers are compared:

$$\text{the number of decibels} = 20 \log_{10} \frac{V_1}{V_2}$$
 where  $V_1$  and  $V_2$  are the two voltages across circuits having the same impedance. A similar formula applies when currents are compared. A decibel is sometimes called a transmission unit. It is also used for comparing other forms of power such as sound, in addition to electrical power.

**Bellini-Tosi Aerial.**—A type of aerial consisting of two frame aerials at right angles which has directional properties. It is used for transmitting wireless waves in a given direction, and for determining the direction of received waves.

**Berne List.**—A list of wireless stations throughout the world, published by: Bureau de l'Union Internationale des Télécommunications, Berne.

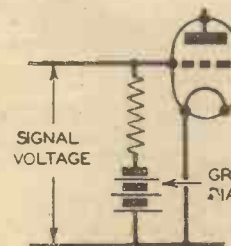
**Beta Rays.**—A stream of beta particles or electrons emitted by radio-active substances.

**Beverage Aerial.**—A type of horizontal receiving aerial which has marked directional properties. Its length is several times the wavelength of the signal to be received, and its height is only a few feet above the ground.

**B-H Curve.**—A curve showing the relation between magnetic flux density (B) in a magnetic material such as iron, and the magnetic field strength (H) which produces this flux. The

ratio  $\frac{B}{H}$  is called the permeability of the material and denotes the magnetic properties of the material. B and H are equal for air and the permeability of air is therefore equal to 1.

**Bias.**—The steady voltage applied between the grid and filament of a valve to determine the correct operating conditions is known as grid bias. When an alternating signal is applied to the valve the grid voltage, therefore, rises and falls above and below the steady voltage applied as bias.



# WIRELESS TOPICS by "ION"

## MULLARD "M.B. THREE" RECEIVER

In a recent article George Bernard Shaw said that all men are 99.9 per cent. alike. If this were really so, there would be almost complete unanimity on the question of the most popular receiver. Fortunately for the manufacturers of wireless equipment tastes differ widely and the requirements of average listeners are poles apart.

A great deal depends upon the aim of the listener. Some want only the home stations, some want all that receivers can bring in. There are districts where nothing but a superhet. will do the job. There are many whose primary consideration is quality of reproduction and to achieve this they will sacrifice everything else.

But all listeners agree on one point, they must have entertainment as free from disturbances as possible, which usually means realistic reproduction at comfortable volume. Another point is simplicity of operation. Gone are the days when we were content to twiddle innumerable knobs.

The lady of the house has also a good deal to say on the matter of the receiver's appearance. She will not tolerate nowadays an ugly box, with all sorts of junk around it, amongst her tasteful furnishings. The modern cabinet has to be a handsome piece of furniture. All the makers, of course, realise this, and the modern receiver is an embodiment of all these points.

It is these considerations that governed largely the design of the Mullard "M.B. Three" receiver, which achieves *sensitivity* (range) and *selectivity* (ability to receive programmes free from interference) by the use of three pentode valves.

One of these valves is for high-frequency amplification, one for detection, and one for output. The makers guarantee entertainment value by the careful design of the circuit, and the use of a sensitive moving-coil speaker accurately matched to the output valve. The utmost simplicity of control is achieved by avoiding the device known as reaction, and by careful adjustment of the circuit components so that the tuning controls are accurately matched or "ganged" for operation by a single tuning knob.

Moreover, this accuracy in manufacture and adjustment ensures that the tuning dial, which is graduated in wavelengths, is very accurately calibrated so that stations can be immediately identified when they are tuned in. Actually, there are only two knobs on this receiver; the tuning knob also operates the wavechange switch, and the second knob actuates the battery switch and also the volume control.

The set is capable of receiving all the home stations and also a good selection of continental capital stations having real programme value.

The cabinet is of inlaid walnut, of horizontal shape, and with a simple yet pleasing design for the fret of the loudspeaker opening.

The "M.B. Three" is a battery-operated set, and a good combined high-tension and grid-bias battery and low-tension accumulator are included in the price of £8 8s. Further particulars from the Mullard Wireless Service Co., Ltd., of Mullard House, 111, Charing Cross Road, London, W.C.2.

## EXIDE BATTERIES

I hear from the Chloride Storage Company that their Exide CZG.4 batteries and WH high-tension accumulators were used by the B.B.C. engineers in connexion with the broadcast of the wedding ceremony of the Duke of Kent and Princess Marina. The batteries were used both for H.T. and L.T. purposes for the amplifying equipment.

## EPOCH LOUDSPEAKERS AND MICROPHONES

I have received from Messrs. Radio Development Company, of Aldwych House, Aldwych, London, W.C.2, who market the Epoch moving-coil loudspeakers and microphones, full details of their products.

*Super-Dwarf.*—This is a new model of a permanent-magnet moving-coil loudspeaker unit which is suitable for portable sets, motor-cars, etc., the diaphragm is 5 in. in diameter and the capacity of the speaker is from  $\frac{1}{4}$  to 2 watts. Type SD unit with a five-ratio transformer is £1 3s. 6d. Type SDB unit, also for class "B" amplification, £1 3s. 6d. Type SDC unit in polished oak cabinet, £1 13s. 6d. Dual matched pair mounted on sub-baffle, £2 7s.

*Mains Energised Speaker.*—This is type E8, which is a powerful D.C. speaker of modern type designed primarily for incorporating in modern A.C. sets where the field coil can be used as a smoothing choke, thereby saving considerably on costs. It can also be used on 100/240 volts D.C.



A novel xylophone made from Exide battery boxes

The makers claim extraordinary sensitivity with a rich deep tone. It is stated to be free from low note "booming." The diaphragm is a seamless moulding. Field windings of 12,800; 1,200; 2,500; or 4,000 ohms. It is fitted with a three-ratio transformer or to order.

The type E8, complete with 3-ratio output transformer, is £1 7s. 6d. Type E9, incorporating mains transformer and Westinghouse rectifier for direct connexion to A.C. mains, is £2 19s. A handsome walnut cabinet, 27s. 6d. extra.

*Class "B" Combination Speaker.*—This is type MB unit which combines a complete Class "B" adaptor and a high class cobalt PM unit, carefully balanced to give superb quality with large volume. Ready for immediate connexion to the output of most battery sets. Complete unit, less valve, is £2 9s. 6d.

*The Epoch Microphone.*—The Epoch moving-coil microphone type 44 is stated to give perfect quality at all frequencies. The makers state that their microphone is very robust, free from external and internal noises and from hum, and represents a high class engineering job at a comparatively low price. Type 44, complete with swivel table stand and without an input transformer, £4 4s. Type 44 T., with input matching transformer, £5 5s. Type 44 P.T., with input matching transformer and pre-amplifier, £6 6s. Type 44 FT., with swivel floor stand and input transformer, £6 6s.

## CAR-RADIO BOOM

I hear from Messrs. E. K. Cole, Ltd., of Ekco Works, Southend-on-Sea, that they are using floodlights for factory building, as they are overwhelmed with orders for car-radio sets. Builders are working day and night extending a special car-radio factory and equipping station to handle the increased demand. I am told that for every car equipped with radio an average of three orders are received as a direct result. Orders taken at the Radio and the Motor Shows have been trebled in this way.

Engineers are being enrolled for special training at the factory in the fitting of car radio, and depots have already been opened at twenty important centres throughout the country.

It appears that part of the new factory will become a special training school for car-radio engineers. "Jolting trays" will give each set 550 "bumps" a minute for six hours to avoid the possibility of vibration affecting its performance after installation, while cambered floors and turntables will enable practically any type of road surface to be imitated for testing purposes.

It will be possible to give the receivers the equivalent of a 50-mile journey up hill-down hill, twisting through traffic and turning sharp corners without leaving the building. Flexible extensions to exhaust pipes will allow car engines to be run indoors without fear of fumes.

I hear that this new extension to Ekco works brings the total area up to nearly a quarter of a million square feet.

## COSSOR TESTING

A representative of the firm of A. C. Cossor, Ltd., told me that the Cossor superhet. receiver is subjected to no less than 41 different tests before it is delivered to the customer.

In the manufacture of so complex an instrument constant attention has to be paid to every detail. Every component must be passed by an expert before it can be mounted on the chassis, and remarkably stringent and exhaustive the tests are, a large staff being constantly employed operating the truly marvellous machines which subject the set to every conceivable type of usage with which it will later have to contend.

The coils, for instance, are individually tested on an actual chassis which is complete in every other respect. Every component is similarly tested on special machines perfected in the Cossor test laboratories, and the batteries of machines present an impressive sight.

In one corner some fifty girl workers sit in front of clicking and hissing machines. The entire section is bathed in blue light, and flashing blue lamps on the operating tables combine to produce a metropolis-like effect; it is in this section that the variable condensers are tested.

In a special speaker-testing booth, protected from outside interference by sheets of thick earthed copper, each loudspeaker is made to reproduce every note in the musical scale with correct fidelity and intensity before it is deemed worthy of inclusion in a Cossor receiver.

Perhaps one of the most remarkable tests is the Cossor cathode-ray apparatus, which portrays in lines of shimmering green light the exact manner in which each part of the set is doing its work. This instrument, devised by Cossor engineers, allows final adjustments to be made with the unique advantage that the result of each adjustment is instantaneously visible to the operator.

# Space and Matter

"By NEUTRON"

## Radiological Exhibition

AN interesting exhibition organised by the British X-ray industry has just been held at the Central Hall, Westminster. I was particularly struck by the mechanical perfection of the apparatus. X-ray equipment is now built on sound engineering lines so that it can be operated with a minimum of trouble; and there is a range of apparatus suitable for practically every need. An interesting exhibit was an electrocardiograph which produces a visual reproduction and also a permanent photographic record of the waveform of heart beats. A cathode-ray oscillograph is employed, and the apparatus is mounted in a metal cabinet on castors so that it can be taken to the bedside of a patient.

## A New Burglar Alarm

A new type of apparatus for burglar alarms, for automatically switching on window lights, opening doors, operating escalators, etc., has recently been placed on the market. This apparatus does not employ a photo-electric cell but is operated by the "body capacity" of a person approaching it. The latter affects the capacity of a thin wire aerial and causes a relay to operate which, in turn, controls the burglar alarm or electric lighting circuit. The apparatus is said to be capable of adjustment for operation by an approaching person at a distance of from a few inches to 25 or 30 feet.

## Cellophane Insulation

According to *Electronics*, the use of cellophane for insulating wire is being developed in America. Special machinery has been installed for wrapping cellophane strip round the wire after adhesive has been applied. The wire is then lacquered and baked. The cost is said to be the same as that for cotton-covered enamelled wire, whilst the space occupied is the same as for silk-enamelled wire.

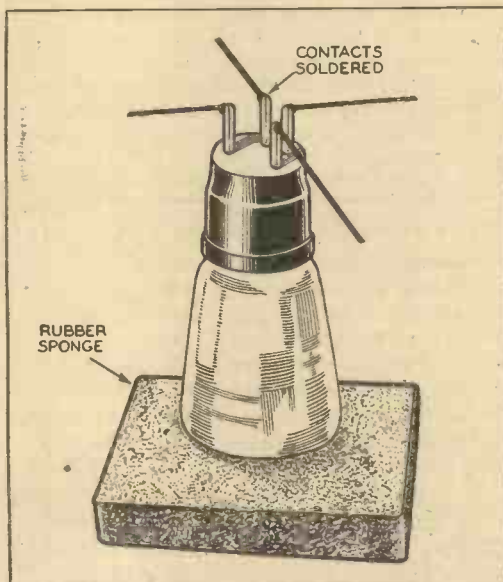
## The Marimbalite

A novel method of playing the musical instrument known as the marimba is described in the American journal *Radio-Craft*. The musician holds a flashlamp, instead of the usual hammers, in each hand, and points them at photo-electric cells which operate relays controlling vibrating hammers for each note. One flashlamp plays the melody whilst the other is aimed at photo-cells which control four-note chords.

# Microphonic Valves

AMONGST battery valves those with microphonic tendencies are lamentably common in the detector class. In these days when built-in loudspeakers are so widely used a microphonic detector can be something more than a nuisance since, owing to the vibrations of the loudspeaker itself which are communicated to the valve, that unpleasant phenomenon known as singing-round-the-ring or howling is apt to take place. Microphonic tendencies are particularly troublesome if they occur in short-wave sets.

The ordinary spring-contact valveholder gives little or no help, for the trouble is largely due to vibrations of the glass bulb under the impact of air-borne waves. These vibrations are communicated from bulb to "pinch" and from pinch to filament.



Method of dealing with microphonic valve

The best line of attack is to make use of some damping device applied to the bulb itself. A method which I have found effective in many cases is to cover the bulb with a layer of cotton wool held in position by a wrapping of sticking-plaster.

A means of dealing with a microphonic short-wave detector is illustrated in the accompanying drawing. The valve has no proper holder at all, but stands upside down in a

hollow scooped out in a piece of ordinary rubber sponge. The sponge is glued to the baseboard and the valve is held down by the stiff wire leads soldered to its pins.

If this does not effect a complete cure the bulb should be treated with cotton wool and sticking-plaster in the way already described. In many cases, however, the rubber sponge mounting will be found to do all that is required, and the fact that no valveholder is used makes for a considerable reduction in stray capacities.

Some valves are past praying for. Whatever is done with them they remain microphonic, producing loud pongs from telephones or loud-speaker whenever the set is touched. With these nothing can be done if they remain in the detector holder, though they will probably give quite good service if a place can be found for them in another stage of the receiving set. As a rule, it is only the detector that gives much trouble in this way. R. W. H.

## METERS AND THE WIRELESS SET

(Continued from page 890)

when charging up, therefore it is safer to short-circuit the milliammeter while switching on the set when making measurements of total H.T. consumption.

Electrolytic condensers have an internal resistance of about 10,000 ohms, which rapidly rises to 1 megohm or more when the current is switched on.

Readings of anode current of variable- $\mu$  valves should be recorded with the volume control full on, or with the aerial disconnected if automatic volume control is employed.

When tests are made of the total anode consumption of a set it may be necessary to shunt the meter with a condenser of from 1  $\mu$ F to 4  $\mu$ F, depending on the resistance of the meter, to prevent interaction between the valve circuits.

Dry-battery voltage tests should be made when the set has been in use for some time; a high-resistance meter may be connected across the battery while it is in use and an accurate reading will be obtained, but when a cheap low-resistance meter is employed it is better to switch off the set and connect the meter without loss of time, since the combined drain of meter and set may be too heavy for the battery. If the anode current of each valve in a mains set shows a decline, the fault may be in the rectifier if the latter is a valve.

In conclusion, treat an expensive meter gently; it is a highly-sensitive instrument and sundry jars and drops are not likely to improve it.

# FREQUENCIES OF LONG-WAVE EUROPEAN BROADCASTING STATIONS

November Measurements by the Brussels Laboratory of the Technical Committee of the U.I.R.

The Letter F indicates telegraphy transmissions. Stations marked  $\odot$  are provided with U.I.R. wavemeter

WAVELTH IN METRES	FREQ. IN KILO'CS	STATION	WAVELTH.	FREQ.	STATION
1935	155	KAUNAS	1339	229	WARSAW $\odot$
1875	160	KOOTWIJK	1293	232	KHARKOV
		BRASOV $\odot$	1261	238	KALUNDBORG $\odot$
		LAHTI $\odot$	1224	245	LENINGRAD
1725	167	MOSCOW No. 1			OSLO $\odot$
		1648			MOSCOW No. 2
		RADIO PARIS			TIFLIS
1600	187	ISTANBUL			
1571	191	DEUTSCHLAND - SENDER			
1500	200	DROITWICH			
1442	206	MINSK			
1415		REYKJAVIK			
1388	216	MOTALA $\odot$			
1357	221	EIFFEL TOWER			

## WORLD RADIO RESEARCH LEAGUE: SECRETARY'S REPORT

## Progress Abroad

I HAVE much pleasure in announcing that we have acquired two new important members whom I welcome on behalf of all the members of the W.R.R.L. The first is the Leicester Amateur Radio Society, which is affiliated to the Radio Society of Great Britain. The headquarters are at Turkey Café, Granby Street, Leicester.

Will our members at Leicester and district get in touch immediately with Mr. W. Winder, of Lutterworth Road, Leicester, who is the Hon. Secretary of this society? It would simplify matters considerably if W.R.R.L. members in this locality were to join the Leicester Radio Society so that they can take part in the discussion of our problems and get expert guidance on all wireless matters.

The second newcomer hails from Mexico and is the "Liga Investigadora de los fenomenos interplanetarios," with headquarters at Zacahuitzco, Gral. Anaya, P.F., Mexico. This society heard of our work from their friends at Vigo, Spain, and are offering us their cooperation.

Mr. W. H. Reeks, foreign corresponding secretary of the Chicago Short-Wave Radio Club, has been good enough to send me copies of the club's bulletin, where several references to our problems are made. The bulletin in question is a very interesting publication which will be treasured by any short-wave fan. It gives exceedingly valuable tables and statistics.

I am sure that the members of the W.R.R.L. will be pleased to hear that our American member, Mr. Oliver Amlie, the past editor of Q.S.O., is the holder of the 10th Short-Wave Craft Trophy, for logging during a recent U.S.A. National contest every short-wave station he could possibly log, beating the other competitors in the process. Good work that! It is also necessary to mention that Mr. Amlie has managed to achieve fame in another direction. He designed the Amlie DX'er 3-tube all-wave circuit, holding important patents of a new plugless coil arrangement. I see from the American Press that Mr. Amlie's receiver is taking the U.S.A. experimenters by storm and that it will make listening on short waves a real pleasure.

I had the honour of hearing from Professor Carl Størmer, of Oslo, who tells me that he is looking with great interest towards our next year's tests on echoes with the help of Norwegian and Danish transmitters. Professor Størmer mentions that such tests should be of great interest during 1939-1940, as then the sunspot activity will be at its maximum.

It should be remembered that it is Professor Størmer whom we have to thank in the first place for the future Norwegian transmissions.

## Progress Abroad

Mr. Hans W. Priwin, our Hon. Representative in Denmark, is doing remarkably good work on our behalf, and his articles are already appearing in the *Populär Radio*, which is a leading radio journal in Denmark. Mr. Priwin is a contributor to *WORLD-RADIO* of long standing.

Mr. Jørgen Hals, who is our Hon. Representative for Norway, and whose articles on the discovery of echoes of long delay you have been reading recently, is now devoting his attention to the question of the "Interaction of Radio Waves," and is contributing on this subject to the Norwegian papers.

Our members may rest assured that their results in connexion with the investigation of this remarkable phenomenon are being discussed internationally by the leading technical journals throughout the world. Copies of these papers are reaching me from all corners of the earth.

Mr. Joseph Mercieca, our Hon. Representative for Malta, is busy writing in the local daily Press on the subject of W.R.R.L. problems and is rapidly enlisting new members. Mr. Mercieca is a remarkably keen worker and a clever journalist. We could not have our interests in Malta in better hands.

We have also acquired a good friend of the League in Stockholm, Sweden, in the person of Mr. Eric Italiener, who is the Editor of the *Radiolyssnaren*. Mr. Italiener hopes to be able to arrange for us tests from the new Swedish short-wave station which is being opened next spring.

Our Hon. Representative for Greece, Mr. Phoebus Ch. Lessios, is also doing highly valuable work on our behalf in Greece. I have just received from him copies of Greek papers which are dealing with the numerous problems of the W.R.R.L. I have been glad to find that

## I TAKE THIS OPPORTUNITY

of wishing all our members, and all those who are co-operating with us, a really merry Christmas and a very happy New Year. May you all get multiple echoes of as short delay as possible of every happy hour during 1935! May this happiness and your prosperity never fade, and should fading occur, may the time interval between *minima* of good luck be as long as possible!

May the sun, the moon, and the weather influence your affairs in a most satisfactory manner. May all the atmospheric in human affairs miss you and pass on on their way without disturbing your reception of continued happiness.

May there never be any "Luxembourg effect" from unwanted sources interfering with the "wanted" results.

And here is to the continued success of the W.R.R.L.!

I have not forgotten altogether my school Greek and could piece together the trend of the articles quite satisfactorily. The first thing that caught my eye was the names of Professor E. V. Appleton, Professor Carl Størmer, and Dr. van der Pol.

Mr. F. Michel de Champurcin, our Hon. Representative in Spain, is also doing excellent work. We are getting a lot of publicity in the Spanish papers, and the number of qualified Spanish members is growing rapidly.

Mr. G. Ashdown, our Honorary Belgian Representative, is making weekly reports on the work of the League in the Belgian official organ of the W.R.R.L., *L'Auditeurs*, and is sending me interesting reports from the Belgian papers.

Mr. A. A. Gulliland, our Honorary Representative for the whole of Germany, has done excellent work in helping us to elucidate the mystery of the Zeesen echoes and giving us the particulars of the musical transmission apparatus. Thanks to his help and organisation we have been able to eliminate at least one source of mistake, which is a great thing.

I am very grateful to our Foreign Representatives for the wonderful work they have done on our behalf, and I am looking forward to receiving from them further reports and cuttings from the official organs.

Reports continue to arrive in connexion with the interaction of radio waves, and I am now busy

tabulating the new results. During the Christmas holidays I hope to be able to map out the results on Luxembourg, Droitwich, and Athlone on a single map, as suggested by Professor Appleton, and thus see how bands of interaction are distributed with respect to each other.

## Echoes of Long Delay

As regards echoes of long delay, the final examination of results obtained up to the present is proceeding. I am far from being satisfied as regards the conclusiveness of our echo tests. It is a very complex problem, and what is worrying me most, at the moment, is the failure to obtain any visible records of the echoes reported. The results obtained during the first few weeks are, of course, very unreliable, as we had not the experience, at the beginning, that we have now. But our tests in the past, even if they did not produce as yet any concrete results, have served a very useful purpose in that they gave us a considerable amount of experience and trained our members to listen to morse signals.

In my opinion, listening to echoes is an extremely difficult thing, although highly fascinating. It requires an enormous amount of concentration and familiarity with all sorts of noises that are picked up during listening. For this reason I advise our members, as a matter of training for future tests, to listen as much as possible to short-wave stations, paying special attention to the noises one hears, so that such noises will be readily recognised during the future tests.

I should like to draw the attention of all members to the fact that, during the actual period of testing, as I have stated on many occasions in the past, my regular weekly reports will be only of a preliminary nature. I shall merely repeat our members' reports without any comment. In due course all such reports will be collected, studied, analysed, and submitted to scientific investigation. If they are approved by the scientists, then an authoritative statement will be published, together with the names of members whose reports were instrumental in obtaining concrete results.

I think that you will agree with me that if our work is to be of any scientific value we must be exceedingly careful in our observations, and report only what we consider to be an indisputable fact. Unless we do this we shall be wasting our own time and that of exceedingly busy people in the scientific world.

## Future Tests

For our future tests on echoes of long delay, in order to make the whole thing as reliable as possible we shall mobilise all the scientific forces we possess. For this purpose I should like to hear from every qualified member as regards his or her willingness to participate regularly in January tests (between 3 p.m. and 4 p.m. every Sunday), together with qualifications, exact locality of the receiving station, and the type of short-wave receiver that is going to be used.

The results obtained by qualified members in various localities will serve as a valuable check on the mass of other results.

Experienced short-wave experimenters, operators, and ex-operators are especially requested to participate in these tests.

Unqualified members can also help, as should their reports agree with those of the qualified members they will provide a valuable clue as regards the distribution of echoed signals. Any of our members who have the means of recording signals should concentrate on obtaining as many records of echoes as they possibly can. We must have some visual or audible proof of the existence of these echoes, if it is at all possible to obtain such a record.

RALPH STRANGER.

Member R.S.G.B., Hon. Member Ligue Universelle de Recherches Radio-Electriques (Belgium), Hon. Member I.A.S.W.F.S. (U.S.A.).

THE SHORT WAVES

# "Hello, Radio-Central!"

By W. G. R. SMITH

It occasionally happens that the opportunity is presented to listeners of hearing unusual broadcasts relayed from distant parts of the world and rebroadcast over the B.B.C. system. In the course of the year there have been several outstanding events of this nature, such as the running commentaries on the yacht races for the Americas Cup, the description of the scene on the arrival of Messrs. Scott and Black in Melbourne after their famous flight from Mildenhall, the "Points of View" series of talks from America, and, perhaps best remembered of all, the world-wide broadcast "Absent Friends" last Christmas Day.

With the increasing popularity of the short waves as a source of radio entertainment, many listeners are, no doubt, aware that they form the vital link by means of which these long-distance relays are made possible. Since it is probable, however, that a large proportion of short-wave listeners—especially newcomers to this field—are unable to understand the morse signals heard all over the dial of a short-wave receiver, it is more than probable that they are also unable to visualise the wonderful network of short-wave commercial circuits that link the world by telegraph and telephone to-day.

Commercial short-wave history dates back barely ten years, and its inception brought about what was probably the biggest change in the history of radio communication. Prior to the short-wave era, long-distance radio communication depended upon the high-power long-wave stations utilising wavelengths of the order of fifteen to twenty thousand metres—in fact, this country had already embarked upon a scheme of Empire communication by means of a chain of such stations.

With the successful inauguration of the short wave "beam" service in 1926-27, very-long-wave systems became more or less obsolete, and, from then onwards, long-distance radio communications rapidly developed along the lines of medium power and the short wave.

When it is realised that long-wave communication meant providing powers of the order of hundreds of kilowatts together with costly high masts and aerial systems, the revolutionary change to short waves as a means of world communication, with output powers rarely exceeding twenty kilowatts or so, will more readily be appreciated; more so when one considers that this reversion was in the nature of a "boomerang," for although later abandoned in favour of long waves, short wavelengths formed the basis of early investigation into wireless phenomena.

By 1928-29 several foreign long-distance commercial radio-telephone circuits were already in operation, and between 1930-33 the short-wave services in this country were further developed for radio-telephone communication to almost any part of the world.

Many readers will, no doubt, recall the re-broadcasting of the ceremonies attending the opening of the England-South Africa radio-

telephone service in February, 1932, and again on the occasion of the opening of the England-India service in May, 1933. The outcome of this intensive short-wave development is that large transmitting centres have sprung up all over the world. At each of these "radio-centres," as they are called, several short-wave transmitters, together with their directive aerial arrays, are concentrated and form the principal



England's "Radio-Central"—The Post Office radio-telephone exchange at Carter Lane, London, through which pass calls to distant lands and to liners at sea



communication channels between the country in which they may be situated and the rest of the world.

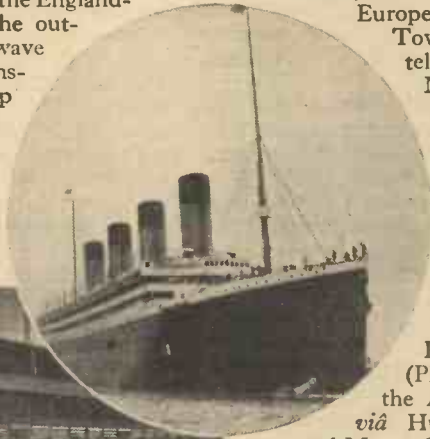
The main radio transmitting terminal in this country is situated at Hillmorton, near Rugby. From this centre the short-wave telephone links up the U.S.A. *via* Rocky Point, New York; Canada *via* Drummondville; South Africa *via* Klipheувal; Australia *via* Sydney; India *via* Poona; as well as Buenos Aires, Europe, and the North Atlantic liners.

In various other parts of the country, beam transmitters carry a large proportion of the commercial telegraphic traffic from this country overseas. Certain of them are also now equipped for photo-telegraphy transmission to Europe and the U.S.A. Canada and South Africa are both served by transmitters at Bodmin in Cornwall, South America and North America by Dorchester, Australia and India by Grimsby, and Europe, South America, and North America by Ongar, in Essex. In the case of the Australian transmitter a special arrangement of the directive aerial array enables the "transmission path" of the beam to be directed *via* the Great Circle route either eastward or westward, the particular route being determined by existing conditions at the time of transmission.

The largest and best known of America's "radio-centres" is the group known as Rocky Point, N.Y., the transmitters of which work under such well-known call-signs as WEA, WEP, WEF, WEL and the famous WQA-WQZ

series—familiar calibration signals to the experienced short-wave listener.

Other groups are also situated at Lawrenceville, N.J. (WMF, WMN, etc.), New Brunswick, N.J. (WIK, WIZ, WAZ, etc.), and Sayville, N.Y. (WJX, WSL, WML, etc.). Each of these groups maintains independent communication channels, using both telephone and high-speed telegraph, to Berlin, London, Paris, Madrid, Moscow, Rome, and other important centres of Europe.



Towards the end of 1929 telegraph circuits between New York and Buenos Aires were supplemented by the radio-telephone and this service has since been extended throughout South America. From the South American end Brazil links up with the U.S. (Rocky Point) *via* Rio de Janeiro (PSA, PSB, etc.) and Septiba (PPX, PPU, etc.), whilst the Argentine makes contact *via* Hurlingham (LSN, LSL) and Monte Grande (LSF, LSX, etc.).

Besides these services with the U.S.A., the South American centres extend short-wave circuits to all parts of Europe, the radio-telephone channels being conducted *via* LSL and LSX. Incidentally, when inaugurated in February, 1929, by the then French President, M. Aristide Briand, the Paris-Buenos Aires radio-telephone circuit was the longest in existence—6,900 miles.

In the Far East, Nagoya and Tokio form the two principal radio-centres in Japan. From Nagoya, a small town situated midway between Osaka and Tokio, Japan's short-wave channels extend westwards to Europe *via* Nauen and St. Assise, and eastwards to the U.S.A. *via* the Pacific coast radio terminal at Bolinas, San Francisco (KET, KEL, KPH, etc.). Nagoya may be better known, perhaps, to the short-wave listener as the home of JNA, JNL, JNI, etc.

In recent months the radio-telephone service has been extended from this country to Japan, and now from the Tokio terminal *via* JVH the voice of the Island Empire joins in the babel of tongues that comes to Europe on the short waves.

Another increasingly important link with the Far East is formed by China's radio-centre established at Chenju, near Shanghai. As in the case of Nagoya, Shanghai (XGN, XGR, XGL, etc.) also maintains communication with Europe *via* Nauen and St. Assise, and with the U.S.A. *via* San Francisco, besides auxiliary services to other important centres in the East. In February of this year these services were further augmented by the inauguration of the first direct service between this country and China operated from the beam station at Dorchester.

By means of the short-wave telephone and telegraph circuits established between St. Assise, Paris (FTA, FTB, FTC, etc.), and Saigon (FZR, FZT, FZS, etc.), France is able to maintain direct contact with her colonial possessions in Indo-China. Siam joins the network *via* the short-wave transmitters at Bangkok, HSP, and HSJ, the latter transmitter being utilised for the radio-telephone circuit between Bangkok and Berlin.

The Dutch were always pioneers and they may lay safe claim to the honour of commercial short-wave pioneering in the East. From the small beginnings of the experimental stage they now possess at Malabar, on the Island of Java, sometimes known as the "Island of Short Waves," the largest concentration of short-wave trans-

(Continued on page 899)

# An Electron Hits Back

By "COULOMBUS"

It was no use. The more I tried to back out, the more the Editor insisted that the technically-minded short-wave readers of this journal should be provided with special Christmas fare. Something to include the essential ingredients of technical interest, cooked with all necessary fiction, and served with the sauce of amusement appropriate to the Season.

After which Beeton-like pronouncement I felt there was nothing left for me to do but signify a non-enthusiastic acquiescence and retire with a promise to "see about it."

Rather late the same evening, I turned away from my short-wave outfit with the intention of having "just a spot" and a final gasper before turning in. My eye caught the word "Xmas" on a magazine cover, which reminded me of the task allotted to me—*i.e.*, and to wit, the production of a technical-serio-comique masterpiece more or less in resonance with the "Hail Fellow Sez You" wavelength typical of short-wave fans at any time . . . but especially at Christmas time.

Well, of course, the obvious thing to do in such cases is to fall asleep in one's armchair and dream (a) that one has a weird visitor, a kind of Messenger from Mars, or (b) that one is oneself transported to a strange place. The net result of either (a) or (b) is that one gains insight into either (x) the future, or (y) the past of, naturally, the subject upon which one is writing, or to write. In due course one wakes up and either (λ) uses the material to write a brilliantly prophetic (or ditto retrospective) article, or (μ) one admits the "dream" and simply writes the "yarn," as such.

This simple analytical process having been completed in my mind, I rejected the "dream" stunt completely. I would not fall asleep (or even pretend that I had, which is also quite a workable scheme) but would just consider other possibilities for a few minutes. The quietness, broken only by the low-toned "tick-tock" of the clock, the smouldering fire, and the last cigarette were conducive to inspiration.

I stretched in my armchair and, at that precise moment, something moved on the mantelpiece, just overhead. I glanced up and was just in time to reach out my hand and catch an old valve which rolled off. I had placed it there a few hours earlier while clearing out my bureau drawer and intended to deposit it in the dustbin in the morning.

It was quite an old valve. I had had it for years, using it only very occasionally as a "stand-by" until, some days ago, its sphere of usefulness had been terminated, suddenly, to an accompaniment of bright blue light and general high-tension excitement. The glass bulb was surmounted by a "pip" which will indicate that it was not a recent product by any means.

Quite idly I took my nail file from my waistcoat pocket and, equally idly, began to file the "pip." Looking back, I've no idea why I should have done this.

Suddenly the file was through. There was the usual "swish" of air into the bulb and, simultaneously, my room door, behind me, swung wide open.

A trifle startled, I laid the valve in the opposite armchair and rose to shut the door, first glancing into the hall beyond. Quite empty, of course.

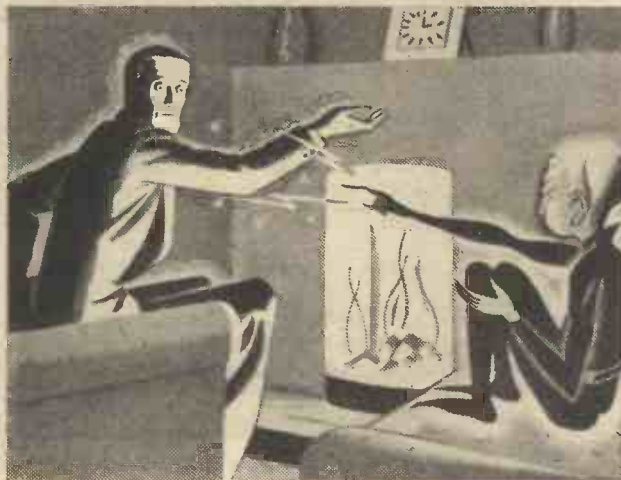
Upon turning from the door again I was—well—astonished to see a quaint little figure occupying the chair on which I had placed the

valve. Yet, somehow, I was more astonished to find that I was not *more* astonished; if you see what I mean.

In a flash I thought of pantomime, Shakespeare, and Walt Disney. The little gnome-like figure—in faded black, with pointed feet, rather prominent knees and elbows, round pale face, and head surmounted by grey, almost white hair—sat well back in the big chair, feet drawn up and pale hands clasped around bony knees.

Determined to play my part as host despite a pardonable curiosity, I turned to the sideboard, saying as I did so—"Have a drink, old chap?" (I thought one would do me good anyhow, and proceeded to operate the "doings.")

In a voice which reminded me of an amateur transmitter's wobbly wave complete with "key-clicks," my visitor said: "There is not time. My final disintegration is at hand, and I have much to tell you."



"I felt the unseen power directed by that pointing finger"

I'm afraid I splashed the soda-water about a bit, but otherwise I remained calm.

"Will you be seated, at once, and listen to me?" he went on.

In spite of the funny musical-effects accompaniment, it was clear that he really meant "You will be seated, etc.," and, hastily, but still with my natural dignity, I hope, I put down my untasted drink (note that please) and returned to my own chair.

As I sat down, the electric light did a complete fade-out—FFF—leaving the room in darkness except for a faint radiation from the now almost extinct fire. I then noticed for the first time a kind of bluish-green glow, suggestive of X-ray experiments, in the vicinity of my uninvited guest. In fact, he seemed to be the source of the radiation, whatever it was. Jolly interesting, I assure you.

Remembering my glass on the sideboard, I was about to rise to fetch it when, with a complete change of frequency to about 200 cycles and a gain of about 40 decibels, my "little man" called out: "Don't move!"

I didn't. I didn't move a millimetre.

"Sit back," he continued. "Sit right back and listen."

"But, hang it all . . ." I said—and at that he pointed his finger at me and an unseen force pushed me back, right back, into my chair. I tried to speak, but found I could not open my mouth. I felt an extraordinary desire to taste that drink on the sideboard, but could not even bend forward to rise from my chair. In fact the whole thing was rapidly becoming like a nightmare, only here I was, absolutely wide awake!

"Oh! Very well," I thought, "I'll just sit still and listen."

And then, in his original pip-and-squeak voice, he told me the most amazing tale, which I here set down in his own words, as near as I can remember them.

"I am," he squeaked, "a planetary electron. In course of transit at the instant when, with criminal negligence, you 'blued' this valve . . . (here he lifted the defunct valve from the chair seat) . . . I was trapped, a mere lost entity, in the vacuum from which you have fortuitously released me. But it is not of that which I wish to speak, for I was doomed in any case. Doomed inevitably to premature senile decay, one of countless millions of victims of the megacycle. Short waves . . . very short waves . . . ultra-short waves . . . and then *micro-waves*." (At this point the "key-clicks" were very pronounced, and the little chap glowed like a cathode-ray tube.)

"I was once a bright, active little electron. With the speed of light I oscillated to and fro to do your bidding; joyous and full of energy. Did I ever complain when the jazz band kept me monotonously 'jig . . . jiggling' and 'pom . . . pomming' for hours, while you snored a hideous *obbligato* in that very chair?

"And then you became a short-wave 'fan,' and I had to learn to speed up from a comfortable 1,500 kc/s, at most, to 21,540 kc/s so that you could listen to Pittsburgh. Bah! Toothpaste indeed!

"Still ambitious, you now contemplate ultra-short-wave activities, and, no doubt, micro-wave experiments are to follow. Tremble for the poor electrons who serve you. And you *shall* tremble. Yes, tremble; but not at your normal trembling frequency of, perhaps, ten cycles per sec. Oh! dear no! You are going to tremble at a frequency of megacycles per second . . . . You . . . you . . . jellyfish!

I certainly felt a bit shivery and wished I could reach the sideboard, but P. E. apparently divined my thoughts and once again I felt the unseen power directed by that confounded pointing finger.

"Stretch out your right arm," he commanded, and I simply *had* to. I could tell by his severe "flutter" and asthmatical "key-clicks" that he was becoming properly hotted up and, quite frankly, I could feel the beads of perspiration trickling down my face, while my spine felt all prickly heat.

"When I count 'one,' your arms will tremble at six megacycles per second . . . Moscow's frequency. When I count 'two' your legs will tremble in resonance with the carrier-wave of Rabat, eight-point-nought-three-five megacycles. And when I count 'three' your whole body will tremble . . . and . . . quite . . . possibly . . . will . . . disintegrate . . . at twelve megacycles per sec."

I glanced at him. His face simply flickered with green light. His lips were parted in a fiendish grin. From the ever-pointing finger came a vigorous brush discharge. My hair simply stood on end. I shivered slightly . . . and then it happened . . .

"ONE," he fairly hissed at me. My arms seemed to be on fire . . . they burned like . . . like . . . "TWO," cried the inexorable voice. My legs shot out before me of their own volition and, Great Scott! my trousers were scorching with the terrific vibration. Soon they would disappear in smoke. I . . . I . . . "THREE," he shrieked . . . and, instantly, . . . BANG!

My heart missed a distinct beat. The room seemed ablaze with light. I saw my outstretched right hand, and the shattered valve lying inside the hearth. Apparently I had missed it after all!



**"HELLO RADIO-CENTRAL"**

*(Continued from page 897)*

mitters in the East and one of the largest in the world. By means of the two transmitters ANH and ANE, now known as PLF and PLE, a radio-telephone service to Kootwijk in Holland was inaugurated as far back as 1928, and many listeners will remember the early short-wave broadcasts from ANE on 15.9 metres. To-day the call-signs of Malabar are heard on numerous short-wave channels and include services to Berlin *via* the great German radio-centre at Nauen, to the U.S.A. *via* San Francisco, to Australia and the Dutch West Indies, and to Kootwijk.

**The Australian Service**

From Ballan, in the State of Victoria, the Australian short-wave circuits extend both to England and Canada. The commercial circuit to this country is operated by VIZ, whilst the service to Canada is carried on *via* VIY. The chief centre of short-wave activity in Australia, however, is at Pennant Hills on the outskirts of Sydney. Here are grouped the various transmitters operating the radio-telephone services between Australia and England *via* VLK, Australia-New Zealand *via* VLZ, and Australia-Java *via* VLJ. Other channels also extend to the mandated islands of the Pacific. In addition to telegraph and radio-telephone, recent developments on the short-wave beam circuits to Australia have been the introduction of a facsimile telegraph service which has made it possible for pictures and even a cinema film to be transmitted to this country.

Further links in the Empire chain of communications are completed by the short-wave centres at Poona, (VWZ), Abou Zabel, near Cairo (SUC, SUY, SUX, etc.), and Klipheuevel, near Capetown (ZSB and ZSS).

**European Radio Centres**

The large radio terminals of Europe are perhaps better known than some of those I have already mentioned. From Nauen and Königswusterhausen (Germany), St. Assise and Lyon (France), Roma S. Paola Transcontinentale and Roma Torrenova (Italy), "Radiocentre" Moscow, Madrid, Budapest, Ruyselede and Jelöy, the short-wave network extends the world over like the fine gossamer threads of a spider's web. But the web spreads and in the near future will enmesh even Northern isolation and insularity when the short-wave radio-telephone adds the voice of Iceland to that unceasing and unending query "Hello, London!"

To one who has followed with the keenest interest the development of this comparatively new branch of radio science from its earliest days, this seems but a very brief and sketchy outline of the important part taken by short waves in the intricate system of world communications that exists to-day. However, it is hoped that it will achieve its purpose of assisting the uninitiated short-wave listener to obtain a clearer insight into the operation of this wonderful network.

**Short-Wave Notes**

**XETE Closes Down**

THE transmitter XETE, Mexico City (31.25 m.), which has frequently been well heard in Europe during the last two years, has closed down, owing to financial difficulties, but it is confidently hoped that a new company will take over the transmitter and that it will resume operations in the New Year.

**EAQ—Special Broadcast**

THE date of the special broadcast from the above station, in connexion with the International Short-Wave Club, is Friday, December 21, from 12 midnight to 12.30 a.m., and not as announced last week.

**THIS ICELANDER—**



**HAS PICKED UP THE ENGLISH SHORT WAVE STATION ON AN EDDYSTONE KILODYNE AND IS HIGHLY AMUSED TO HEAR THAT ONE OF HIS DEEP DEPRESSIONS HAS JUST REACHED ENGLAND.**

No owner of an Eddystone Kilodyne need suffer from deep depressions. The set will pick up short-wave transmissions from all over the world and must be handled to appreciate its wonderful capabilities. Unlike many "All Wave" receivers, the Kilodyne is not an ordinary set adapted afterwards for short-wave working, but an instrument designed for efficient short-wave reception as a first consideration and adapted later for the higher wavelengths. The features of the design are ease of operation, an excellent slow-motion open vision tuning control, freedom from objectionable body capacity effects, even on the shortest waves, no dead spots in any waverange, and smooth and definite reaction everywhere. Ideal for world-wide reception of short-wave programmes.

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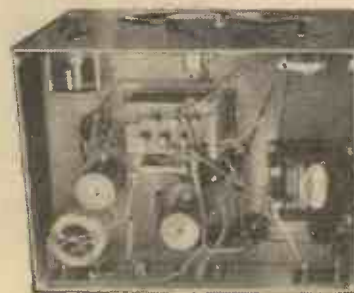
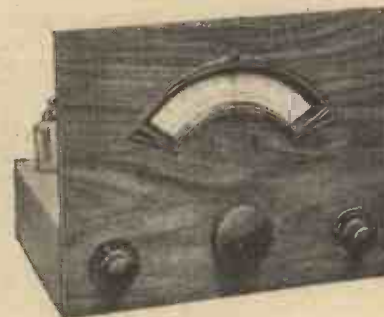
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**EDDYSTONE KILODYNE 4**



Three views of the Kilodyne 4



# Short-Wave News Reel

## International Affairs

If any short-wave enthusiast is interested in international problems of the day he should tune in to Geneva, Switzerland, on Saturday night—either HBP on 38.48 metres or HBL on 31.27 metres—for a purely unbiased point of view. To me it seemed that the speaker, giving the news bulletin issued by the League Secretariat, gave such information as would give satisfaction to all parties, yet, at the same time, being guarded in his words when speaking on highly controversial subjects.

On December 15, at 10.27 p.m., I heard HBP calling: "Hello! Hello! you are listening to Radio Nations." Later, we had the most recent information available in connexion with the Saar Plebiscite, the speaker announcing that "complete agreement had been reached in the method of voting." With regard to the dispute between Hungary and Jugo-Slavia, the announcer said that we had, all of us, no doubt read in the daily Press that an agreement had been reached to the satisfaction of all concerned. He then proceeded to give quotations from the editorials of leading newspapers in various countries, some of these not being members of the League. All these reports were of an optimistic nature.

This ended the English version, so I tuned in to HBL, giving the call: "Ici Radio Nations," followed by the talk in French. Later the Spanish version was given, and both transmitters closed down without a further announcement in English.

Barnsley, Yorks.

R. H. G.

## Russian Film Industry

MOSCOW (25 m.) on December 16 gave a short talk on the film industry in Russia, which must have been interesting to film fans the world over. The talk was inspired by the fact that the previous week had seen the celebration of the fifteenth anniversary of the start of this industry in the U.S.S.R. The cinema was practically unknown in Czarist Russia and so the film industry is, as the speaker so graphically said, a "Child of the Revolution."

There are now, we were told, 28,000 cinemas in Russia. This number, however, includes travelling cinema vans which visit the more remote villages. The number is very inadequate and is rapidly being increased, 150 new cinemas having been built in the Ukraine alone this year.



Factory workers invited to act in a film arriving at the studio in Moscow.

Many Russian films have achieved world fame, the best known being "Storm Over Asia," "Ten Days That Shook The World," "The Road To Life," and "Thunder."

The Russian public is becoming cinema conscious so rapidly that, despite the fact that all Russian films are what the speaker called "agitational," Russia may one day challenge America and Britain for world supremacy in this industry.

Reading.

S. A. M.

## "The Voice of Australia"

TO-DAY (December 16) while listening to an American station at 2 p.m. (G.M.T.) the unmistakable laugh of the kookaburra was faintly heard. A slight touch on the tuning control and that laugh filled the room. Then a voice announced: "The Voice of Australia—VK2ME."

This station has provided some very good entertainment during the last few weeks and the programme to-day was no exception. The widely varied selection of records could hardly have failed to satisfy the most fastidious. Among them were such well-known favourites as "The Merry Widow," Reginald Dixon playing the world-famous "In Town To-night," and the Coldstream Guards in "A Musical Switch." The kookaburra at 3.15 p.m. was in great form, and had evidently laid two eggs at one go! Then came a short talk concerning Australia. Again that laugh at 4 p.m. (G.M.T.) followed by "God Save the King." It was announced that there would be no transmission from VK2ME on December 30. Then followed a great thrill when the announcer bid listeners "Good morning," "Good afternoon," and "Good night."

Catford, S.E.6.

F. W.

## "KDKA Kiddies' Klub"

I LISTENED to the children's programme called the "KDKA Kiddies' Klub" from Pittsburgh, U.S.A., yesterday afternoon (December 15). The proceedings opened with the children singing in chorus:—

"Smile, smile, smile in the morning,  
Smile and be happy all day."

Then Uncle Sam said the studio was full of children, their Mummies and Daddies, Aunts and Uncles, and, he said, "We have a Grandpa and Grandpa here, too." Then followed the

birthday greetings, each child being told where to find his or her present.

Uncle Sam then said he had received a very nice letter from a boy aged fifteen years living in Edinburgh, Scotland, who had listened regularly to these children's broadcasts on a one-valve short-wave receiver, and saying how much he appreciated them. Uncle Sam said: "I hope today's broadcast spans that big Atlantic, so that our boy friend will be able to hear us." Then followed musical items and singing by the children in the studio. Altogether a very nice programme.

A. C. H.

Newbury, Berks.

## Short Waves in the North

By "DIPOLE"

(December 9—15)

THE indications given by "Microm" in his notes last week of an improvement in conditions expected to occur roughly around December 21 will, I have no doubt, be of the greatest interest to Northern listeners; for, during the past week, and for some little time, in fact, conditions in the North—at least, as far as Stirlingshire is concerned—have been anything but ideal. The little opportunity I have had during the week of listening throughout the daylight hours indicates that this is still the most favourable period. It has been the rule rather than the exception to find that after 5 p.m. there has been very little audible below 20 metres, while the 31-metre stations that could be heard have developed "flutter." On 49 metres the "locals," Moscow and DJC, have been the most consistent, GSA and OXY being generally fair. Apart from these, reception has been extremely "patchy," for whilst carrier waves have at times been fairly numerous, intelligible reception has been nullified by the existing high noise levels and heavy morse interference.

The Sydney station VK2ME occasions me great interest. For some time past I have observed that listeners in the South have been extremely successful in their reception of this transmitter, whilst in the North throughout the past year I find that only on rare occasions has VK2ME been really worth while; and, so far as I can ascertain, there has only been one single instance when signal level has reached a value indicated by "J.N.," of Dalkeith, in the previous issue of WORLD-RADIO, and even then it was accompanied by fading and high noise. An instance occurred on Sunday, December 9. Shortly after 2 p.m. "Microm" observed a good signal from VK2ME, but in my own case the same station was barely intelligible. Whilst having no direct bearing on the reception of VK2ME, another rather curious feature is the fact that, up to the present, all my attempts to hear Lindhurst, VK3LR, have proved unsuccessful. It would be extremely interesting to know if Scottish listeners experience difficulty in receiving these transmitters.

On Tuesday afternoon W8XK (19.72 m.) and W3XAL (16.87 m.) both provided reasonably good headphone reception (R7) until about 4.15 p.m., when conditions began to deteriorate, finally resulting in a complete fade-out shortly before 5 p.m. During the late evening Rome (30.67 m.) and CT1AA (31.25 m.) were quite good, although little else was audible below 30 metres.

Considerable variations in the transmitted frequency of Rome on the 49-metre band shortly after 11 p.m. the following evening completely spoiled an otherwise fairly good signal from W3XAL (49.18 m.). When on a frequency of 6,115 kc/s Rome left W3XAL a clear channel at R7-8, but his sudden frequency "shifts" to within 1 kc/c of W3XAL resulted in the Bound Brook transmitter being completely covered by an exceedingly strong signal.

Considering the poor conditions that have prevailed after dusk on 31 metres, the outstanding performance of the week is definitely that of CT1AA. At 10.20 p.m. the Lisbon transmitter dominated this particular band with an exceptionally fine and powerful signal, and of excellent quality.

That a further addition to the already overcrowded 49 m. band seems likely in the near future is evidenced by signals heard from a new Portuguese transmitter, CSL, operating on an announced frequency of 6,150 kc/s, 48.78 m. This station was heard shortly after 11 p.m., fairly steady at R7, and is requesting reports.

(Continued at foot of column 1, page 901)

## Short Waves on the Continent

By "CENTRAL EUROPEAN"

(December 9-15)

WHILE reception of European short-wave stations showed great improvement during the last week, that of North American transmitters continued to remain only mediocre; at any rate until Thursday. After that day the latter improved, but only very slightly.

On Monday (December 10) stations on the 25 m. and 31 m. bands were especially bad signals, so that only transmitters on the 48/49 m. band—a region which does not now give too good results and which is as overcrowded as the shorter medium-wave band—could be heard. The only really good signal here was Pittsburgh W8XK (48.86 m.), which reached a maximum strength of R6 at 11 p.m. However, even this station could not often be heard during the week, as it is constantly heterodyned by RKK. During the afternoon, at about 5.45, I logged W3XAL (16.87 m.)—a very poor signal which soon faded out.

Tuesday was remarkable for the roaring signal of Lisbon CT1AA (31.25 m.). It is a long time since this station has come through at similar strength. GSA and DJC were also very strong signals during the evening. HVJ (50.27 m.), on the other hand, was only feebly heard. The same evening I noticed a great improvement in the reception of Rio de Janeiro, PRF5 (31.58 m.) compared with the previous week; at 11 p.m. its strength was R7.

On Wednesday evening I found that Rome, 2RO (49.25 m.) was subject to strong interference. I was, however, unable to discover the cause. At about midnight, W2XAF (31.48 m.) came through at R5. At the same hour I heard Saigon FZR (31.19 m.), while in communication with Paris; the strength was R4. On the "Spanish section" of the 48 m. band the small transmitter Maracaibo (49.42 m.) proved quite a good signal, but of Havana COC (49.96 m.) the carrier-wave only was feebly heard. After OXY had closed down, Philadelphia W3XAU (49.5 m.) came through at moderately good strength, but a strong generator-noise marred reception.

At 6.45 p.m. on Thursday, W3XAL (16.87 m.) came through at R4, but by 7.10 it had gone down to zero. Both Schenectady stations were poor signals, but Pittsburgh W8XK (25.27 m.) came through quite well and at 11 p.m. it reached its greatest strength for many weeks past.

Friday brought excellent reception of Parede CT1GO. The same applied to Rome (49.25 m.), whence came a faultless transmission of Verdi's *Falstaff*. On Saturday Rome was again well heard, this time on 30.67 m. It came through at great strength, and it did not transmit the special programme for North America, but relayed that of the medium-wave station.

On Saturday I recorded good reception of Nairobi VQ7LO (49.5 m.). Bombay VUB was also an excellent signal. After a long period of silence I heard Jeløy again on 48.94 m. Latterly it had been coming through on the 31 m. band only. Buenos Aires LSX (28.98 m.) was a really fine signal at 4.15 p.m., reaching a strength of R8.

### SHORT WAVES IN THE NORTH

(Continued from column 3, page 900)

Conditions showed slight signs of improvement on Saturday, for during the afternoon W3XAL (16.87 m.) and W8XK (19.72 m.) were both heard fairly well (R7), but started to fall off after 4 p.m.

In conclusion I should like to take this opportunity of wishing all my readers a "Happy Christmas, a Guid New Year, and Good Listening!"

## Short-Wave Reports

To the Editor of WORLD-RADIO

Sir,—As I have not seen any short-wave reports from this district lately, I beg to submit the following for December 15 and 16:—

- Dec. 15—12.55 p.m. LKJ1 (31.45 m.) R9/N/X. Music, call.
- " 15—1 p.m. DJN (31.45 m.) R10/FF/X. Call.
- " 15—1.5 p.m. DJA (31.38 m.) R8/FF/X. Call.
- " 15—1.10 p.m. GSF (19.28 m.) R7/FFF/N. Music, call.
- " 15—1.15 p.m. W8XK (19.72 m.) R9/F/N. Call.
- " 15—1.30 p.m. FYA (19.68 m.) R7/F/N. News in English.
- " 15—3 p.m. W3XAL (16.87 m.) R5/FFF/N. Call.
- " 15—3.25 p.m. PHI (25.57 m.) R6/F/N. Music.
- " 15—3.30 p.m. GSE (25.29 m.) R7/F/N. Call.
- " 15—4.20 p.m. FYA (25.23 m.) R8/N/N. Talk.
- " 15—4.35 p.m. GSB (31.55 m.) R9/F/X. Call.
- " 15—5 p.m. DJD (25.49 m.) R4/F/N. Call.
- " 15—5.15 p.m. GSD (25.53 m.) R5/F/N. Dance music.
- " 15—5.20 p.m. WIXAZ (31.35 m.) R7/F/XX. Music.
- " 15—10.45 p.m. HBP (38.48 m.) R10/FF/N. English talk. Call.
- " 15—11 p.m. HBL (31.27 m.) R8/FF/X. Talk in French.
- " 15—11.15 p.m. EAQ (30.43 m.) R9/FFX. Call, records.
- " 16—12.15 a.m. DJB (19.74 m.) R4/F/N. Call, talk.
- " 16—2.15 a.m. VK2ME (31.28 m.) R7/FFF/X. Call, music.
- " 15—3.15 p.m. RW59 (25 m.) R10/N/N. Talk.

The receiver used was a home-made SG-v-Pen., with moving-coil loudspeaker and outdoor aerial.

Yours faithfully,  
M. G. K.  
Sheffield.

To the Editor of WORLD-RADIO

SIR,—Permit me this opportunity of giving to listeners a short-wave report from this district:—

- Dec. 15—7.5 p.m. HVJ (50.27 m.) R8/FSS/X. Talk and call.
- " 15—7.15 p.m. DJC (49.83 m.) R7/FS/X. Call to Africa.
- " 15—8.30 p.m. RW59 (50 m.) R7/FS/X. Talk.
- " 15—8.45 p.m. ORK (29.04 m.) R6/FRR/X. Orchestra and call.
- " 15—10.30 p.m. { HBL (31.27 m.) R9/FS/X. Talk on Saar and Yugo-Slav question.  
HBP (38.48 m.) R7/FF/N. Ditto.
- " 15—10.45 p.m. CT1AA (31.25 m.) R6/FFS/X. Orchestra.
- " 15—11 p.m. PRF5 (31.58 m.) R6/FR/X. Call and news in English.
- " 16—10.15 a.m. LKJ1 (31.45 m.) R8/FR/N. Religious service.
- " 16—3.55 p.m. VK2ME (31.28 m.) R7/FFS/X. Records.
- " 16—4.10 p.m. DJN (31.45 m.) R9/FS/N. Military band concert.
- " 16—4.20 p.m. W8XK (19.72 m.). Religious service.
- " 16—4.30 p.m. W2XE (19.64 m.). Children's concert.
- " 16—5.15 p.m. 2RO (30.67 m.). Orchestra.
- " 16—5.30 p.m. EAQ (30.43 m.). Singing.

Receiver used is o-v-o with outdoor aerial.  
Yours faithfully,  
T. S.  
Leek.

## Correspondence

America-Australia Relay

To the Editor of WORLD-RADIO

SIR,—While searching for short-wave stations at midday on Wednesday, December 12, I tuned in an American station in conversation with Australia. It turned out to be Schenectady, W2XAF, and Sydney, VK2ME. They were making arrangements for a short-wave programme to operate between the two countries. The American announcer said he would like it to take place on December 24 and they seemed to settle on that date, but would call again on December 18 at the same time (12.30 p.m. G.M.T., America 7.30 a.m., Australia 10.30 p.m.). They are trying to make it, the announcer said, one of the finest programmes possible. The American Press men were in the studio waiting for full details as they are taking part in the programme.

Yours faithfully,  
W. McK.  
Mottram, Cheshire.

Swiss Short-Wave Station

To the Editor of WORLD-RADIO

SIR,—The Radio Club of Basle, Switzerland, is now relaying one of the Swiss medium-wave stations every Thursday from 9.0 to 9.30 p.m. for the benefit of Swiss nationals abroad. The call-sign of the club's station is HB9B and is found in the 3.5-megacycle amateur band. When I heard this station on December 6 a review of the week was being given in German. Calls are given several times in English and other languages. Reports are requested and should be sent to Radio Club of Basle, HB9B, Post Box No. 1, Basle, Switzerland.

Yours faithfully,  
F. A. B.  
Ridgewell, Essex.

# Christmas Greetings

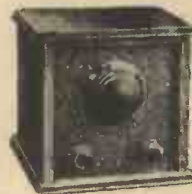
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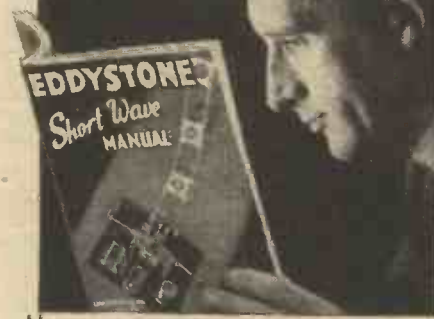
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# SHORT-WAVE BROADCASTING STATIONS

This list includes stations which broadcast regularly on wavelengths below 100 metres.

Where ascertainable the times of operations are given in G.M.T.

m.	kc/s	kW	Station	Dial Readings	m.	kc/s	kW	Station	Dial Readings
84.67	3543	0.15	Mozambique (East Africa) CR7AA.	MON., THURS., SAT., 6.30-8.30 p.m.	46.3	6480	0.1	Cali (Colombia) HJ5ABD.	
83.3	3600	0.05	Ponta Delgada (Azores) CT2AJ.	WED., SAT., 10 p.m.-12 m'nt.	45.38	6610	10	Moscow RW72 (Russia).	
73	4110	0.5	Quito (Ecuador) HCJB.	Daily (ex. TUES.), 12.45-3 a.m.	45.31	6620	..	Riobamba (Ecuador) PRADO.	FRI., 2-4 a.m.
70.2	4273	20	Kharbarovsk RV15.	6 a.m.-2 p.m.	45	6667	0.15	Guayaquil (Ecuador) HC2RL.	SUN., 10.45 p.m.-12.45 a.m.; WED., 2.15-4.15 a.m.
58.31	5145	..	Prague OK1MPT.	Experimental.	43	6976	..	Constantine (Algeria) 8KR.	
52.7	5692	0.5	Tananarive (Madagascar) FIQA.	D'yly (ex. SUN.), 8-8.45 a.m.; 3-4 p.m.; SAT., 5.30-7 p.m.; SUN., 7.30-8 a.m.	41.9	7150	0.3	Madrid EA4AQ.	TUES., SAT., 10 p.m.
51.28	5850	..	Maracaibo (Venezuela) YV5RMO.	5-6 p.m. 10.30 p.m.-3 a.m.	41.8	7177	0.5	Manizales (Colombia) HJ4ABB.	
50.85	5900	0.05	Medellin (Colombia) HJ4ABE.	12m'nt-4 a.m.	41.6	7211	0.2	Lobito (Angola) CR6AA.	WED., SAT., 7.30-9.30 p.m.
50.27	5968	10	Vatican City (Italy) HVJ.	Daily, 7-7.15 p.m.	38.48	7797	20	Tenerife Radio Club EA8AB.	
50.08	5990	..	Caracas (Venezuela) YV4RC.		37.33	8035	10	Radio Nations (Switzerland) HBP.	SAT., 10.30-11.15 p.m.
50	6000	..	Barcelona Radio Club (Spain) EAJ25.	SAT., 8.30-9.30 p.m.	31.58	9500	15	Rabat (Radio Maroc) CNR.	SUN., 8-10.30 p.m.
49.96	6005	0.3	Bucharest (Romania).		31.55	9510	20	Rio de Janeiro PRF5.	10.30-11.15 p.m.
49.96	6005	2.5	Montreal VE9DR.	(Suspended.)	31.48	9530	3	*Daventry GSB.	
49.92	6010	4	Montreal VE9DN.	4.30-5 a.m.	31.45	9540	40	Melbourne (Australia) VK3ME.	WED., 10-11.30 a.m.; SAT., 10 a.m.-12 noon.
49.92	6010	..	Havana (Cuba) COC.	2.30-4 p.m. 9-11 p.m. Sun., 4.30-5.30 a.m. also.	31.38	9560	5	Schenectady (N.Y.) W2XAF.	11.30 p.m.-4 a.m.
49.9	6012	0.25	Mexico City XEBT.		31.36	9565	4.5	Jeløy (Norway) LKJ1.	10 a.m.-1 p.m.
49.83	6020	5	Bogotá (Colombia) HJ3ABH.		31.35	9570	10	Zeesen (Germany) DJN.	8.45 a.m.-12.15 p.m.; 1-4.30 p.m.; 10.15 p.m.-3.45 a.m.
49.83	6020	5	Singapore (S.S.) ZHI.	MON., WED., THURS. 10.40 p.m.-1.10 a.m.; SUN., 3.40-6.10 a.m.	31.32	9580	20	Zeesen (Germany) DJA.	1-4.30 p.m.; 10.15 p.m.-2.15 a.m.; SUN., 9-10.30 a.m.
49.67	6040	1	Zeesen (Germany) DJC.	10.30 p.m.-3.45 a.m.; 5-9.45 p.m.	31.28	9590	20	Bombay (India) VUB.	WED., SAT., 4-5.30 p.m. (Irregularly MON., THURS., SUN.)
49.59	6050	20	Boston (Mass.) W1XAL.	MON., WED., FRI., 12.30-2 a.m.	31.27	9595	20	Springfield (Mass.) W1XAZ.	12 n'n-6 a.m.
49.59	6050	10	Sourabaya (Java) YDB.	3.30-6.30 a.m.	31.25	9600	2	*Daventry GSC.	
49.5	6060	0.5	*Daventry GSA.		31	9677	0.5	Lindhurst (Victoria, Australia) VK3LR.	Daily (ex. SUN.), 8.15 a.m.-12.30 p.m.
49.5	6060	0.5	Cincinnati W8XAL.	12 noon-1 a.m.; 4-6 a.m.	30.67	9780	20	Philadelphia (Pa.) W3XAU.	5 p.m.-1 a.m.
49.5	6060	0.5	Nairobi (Kenya) VQ7LO.	Daily, 4-7 p.m. (SAT. to 8 p.m.); MON., WED., FRI., 10.45-11.15 a.m.; TUES. 8-9 a.m.; THURS., 1-2 p.m.	30.43	9860	20	Sydney (Australia) VK2ME.	SUN., 6-8 a.m.; 10 a.m.-4 p.m.
49.5	6060	0.5	Philadelphæa (Pa.) W3XAU.	1-4 a.m.	29.04	10,330	9	Radio Nations (Switzerland) HBL.	SAT., 10.30-11.15 p.m.
49.5	6060	0.5	Skamlebaek (Denmark), OXY.	6 p.m.-m'nt. SUN., 4 p.m.	28.98	10,350	..	Lisbon (Portugal) CT1AA.	TUES., THURS., SAT., 9.30 p.m.-12 m'nt.
49.43	6069	0.007	Santo Domingo (D.R.) HIX.	TUES., FRI., 1-3 a.m.; SUN. at 12.40 p.m.	28.36	10,587	..	Lisbon (Portugal) CT1CT.	THURS., 9-11 p.m.; SUN., 12 noon-2 p.m.
49.4	6072	0.25	Vancouver (B.C.) VE9CS.	SAT., 4.30-5.45 a.m.; SUN., 4 p.m.-4 a.m.	25.65	11,695	0.2	Rome (Italy) (Testing).	7.30 p.m.
49.34	6080	0.5	Vienna Experimental OER2.	D'yly 2-10 p.m.	25.6	11,720	20	Madrid (Spain) EAQ.	10.15 p.m.-12.30 a.m.; SAT., 6-8 p.m.
49.3	6085	20	Chicago (Ill.) W9XAA.	8 p.m.-6 a.m.	25.53	11,750	20	Ruysselede (Belgium) ORK.	7.45-9.45 p.m.
49.26	6090	0.1	La Paz (Bolivia) CP5.	12.45-2.15 a.m.	25.49	11,770	..	Buenos Aires LSX.	Daily, 8-9 p.m.
49.26	6090	0.1	Rome (Italy) 2RO.	MON., WED., FRI., 11 p.m.	25.45	11,790	..	Paris (France) FYB.	Time Sig., 8.26 a.m. and 8.56 p.m.
49.22	6095	0.5	St. John (New Brunswick) VE9BJ.	Daily, 12 m'nt-1.30 a.m.	25.4	11,810	..	Caracas (Venezuela) YV3RC.	
49.2	6097	5	Bowmanville (Canada) VE9GW.	MON., TUES., WED., 8 p.m.-5 a.m.; THURS., FRI., SAT., 12 noon-5 a.m.; SUN., 6 p.m.-2 a.m.	25.36	11,830	2	Winnipeg (Canada) CJRX.	Daily, 12 m'nt-5 a.m.; SAT., 9 p.m.-6 a.m.; SUN., 10 p.m.-3.30 a.m.
49.2	6097	5	Johannesburg (S.A.) ZTJ.	D'yly (ex. SUN.), 4.30-5.30 a.m.; 8.30-12 noon; 2-8 p.m. (9.45 p.m. SAT.); SUN., 1-3.15 p.m.; 5.30-8 p.m.	25.29	11,860	10	Radio Colonial (Paris) FYA.	12 m'nt-3 a.m.; 4-6 a.m.
49.18	6100	15	Bound Brook (N.J.) W3XAL.	MON., WED., and SAT., 10 p.m.-6 a.m.	25.27	11,870	23	Huizen (Holland) PHI.	(ex. Tues. Wed.) 1-3 p.m.; SAT. to 3.30 p.m.; SUN. to 4 p.m.
49.18	6100	10	Chicago (Ill.) W9XF.	ex. MON., WED., SUN., 9 p.m.-7 a.m.	25.23	11,880	5	*Daventry GSD.	
49.1	6109	0.5	Calcutta (India) VUC.	D'yly (ex. FRI. and SAT.), 3.30-6 p.m.; FRI., 2.30-3 p.m.; SAT., 5.45-9 p.m.	25	12,000	20	Zeesen (Germany) DJD.	5-9.45 p.m.
49.09	6110	0.5	Halifax (N.S.) VE9HX.	2-4.30 p.m.; 9 p.m.-4 a.m.	24.83	12,082	0.5	Boston (Mass.) W1XAL.	11 p.m.-12.30 a.m.
49.08	6112	0.2	Caracas (Venezuela) YV2RC.	Daily (ex. SUN.), 4.30 p.m.-2.30 a.m.; SUN., 2 p.m.-3.30 a.m.	24.2	12,396	0.3	Rome (Italy) 2RO.	
49.08	6112	0.2	Caracas (Venezuela) YV2RC.	Daily (ex. SUN.), 4.30 p.m.-2.30 a.m.; SUN., 2 p.m.-3.30 a.m.	23.39	12,830	10	Wayne (N.J.) W2XE.	8-10 p.m.
49.02	6120	1	Wayne (N.J.) W2XE.	11 p.m.-4 a.m.	19.84	15,123	..	*Daventry GSE.	
48.94	6128	1	Bandoeng (Java) YDA.	3.30-6.30 a.m.	19.74	15,200	5	Pittsburgh W8XK.	9.30 p.m.-3 a.m.
48.9	6130	..	Jeløy (Norway) LKJ1.	3-11 p.m.	19.72	15,210	40	Radio Colonial (Paris) FYA.	4.15-7.15 p.m. 8-11 p.m.
48.86	6140	40	Kuala Lumpur (F.M.S.) ZGE.	SUN., TUES., and FRI., 11.40 a.m.-1.40 p.m.	19.71	15,220	..	Moscow (Russia) RW59.	SUN., 3-4 a.m. 11 a.m.-12 noon; 3-4 p.m.
48.86	6140	40	Pittsburgh W8XK.	9.30 p.m.-6 a.m.	19.68	15,243	0.5	Lisbon (Portugal) CT1CT.	SUN., 2-4 p.m.; THURS., 8-9 p.m.
48.78	6150	2	Winnipeg (Canada) CJRO.	D'yly, 12 m'nt-5 a.m.; SAT., 9 p.m.-6 a.m.; SUN., 10 p.m.-3.30 a.m.	19.67	15,250	..	Parede (Portuguese Radio Club) CT1GO.	
48.4	6198	0.35	Caracas (Venez.) YV3RC.	8.30 p.m.-1.30 a.m.	19.66	15,260	10	Rabat (Radio Maroc) CNR.	SUN., 12.30-2 p.m.
48.39	6200	0.05	Parede (Portuguese Radio Club) CT1GO.		19.64	15,270	10	Vatican City (Italy) HVJ.	10-10.15 a.m.
47.5	6316	..	Bogotá (Colombia) HJ3ABF.		19.56	15,330	15	*Daventry GSF.	
46.69	6425	18	Santo Domingo (D.R.) HIZ.		19.47	15,410	5	Zeesen (Germany) DJB.	8.45 a.m.-12.15 p.m. SUN., 9-10.30 a.m.
46.53	6447	0.3	Bound Brook (N.J.) W3XL.	Experimental.	19.46	15,420	18	Pittsburgh W8XK.	1-9.15 p.m.
46.53	6447	0.3	Barranquilla (Colombia) HJ1ABB.	Daily, 4.15-6 p.m.; 11 p.m.-3 a.m.	19.45	15,430	10	Huizen (Holland) PCJ.	Experimental.
					19.44	15,440	10	Radio Colonial (Paris) FYA.	12 n'n-4 p.m.
					19.43	15,450	5	Boston (Mass.) W1XAL.	3.50-6.30 p.m.
					19.42	15,460	15	*Daventry GSI.	
					19.41	15,470	1	Wayne (N.J.) W2XE.	4-6 p.m.
					19.40	15,480	20	Schenectady W2XAD.	Daily 7.30-8.30 p.m.
					19.39	15,490	..	Riobamba (Ecuador) PRADO.	(Suspended.)
					19.38	15,500	..	Bound Brook (N.J.) W3XL.	4-10 p.m.
					19.37	15,510	5	Zeesen (Germany) DJE.	
					19.36	15,520	15	Bound Brook (N.J.) W3XAL.	3-9 p.m.
					19.35	15,530	15	*Daventry GSG.	
					19.34	15,540	15	*Daventry GSH.	
					19.33	15,550	15	*Daventry GSI.	
					19.32	15,560	40	Pittsburgh W8XK.	12 noon-7 p.m.

\*The Empire Transmitters are occasionally interchanged.

For Long and Medium-Wave stations see page 910.

# SHORT-WAVE PROGRAMMES

For Wavelengths, see S.W. list

\* Electrical Recording  
† Gramophone Records

## SUNDAY, Dec. 23

### EMPIRE

Transmission 1 (GSD, GSB), 8.30 a.m.—Big Ben. Congregationalist Service.\* 9.15—Sports Talk.\* 9.30—Empire Orchestra. 10.15—Newsletter. 10.30—Close.

Transmission 2 (GSF, GSE), 12.30 p.m.—Big Ben. Western Orchestra. Clifford Deri (Baritone). 1.30—Winifred Small (Violin). 1.45—Newsletter. 2.0—Close.

Transmission 3 (2.15—3.45 GSE, GSB; 3.45—5.0 GSB, GSA; 5.0—5.45 GSA, GSD), 2.15 p.m.—Big Ben. Leonard Isaacs (Pianoforte). 2.45—Northern Orchestra. 3.45—Bernard Crook Quintet. 4.15—Newsletter. 4.30—Service for Young People. 5.0—London Symphony Orchestra. 5.30—Wireless Military Band. Frederick Ranalow (Baritone). 5.45—Close.

Transmission 4 (6.0—9.30 GSD, GSB; 9.30—10.45 GSB, GSA), 6.0 p.m.—Big Ben. Griller String Quartet. Dora Labbette (Soprano). 6.45—Theatre Orchestra. 7.30—Lamond (Pianoforte). Wilfred Miles (Tenor). 7.55—Service. 8.45—Newsletter. 9.0—Celebrity Trio. 9.30—Band of H.M. Royal Air Force College. Percy Underwood (Baritone). 10.15—Albert Sammons (Violin). 10.45—Close Down.

Transmission 5 (GSC, GSA), 11.0 p.m.—Big Ben. Service.\* 11.45—Sports Talk.\* 12.0—Helen Alston (Mezzo-Soprano); Carlo Horthy (Tenor); Lilly Phillips (Cello). 12.45 a.m.—Newsletter. 1.0—Close.

SKAMLEBAEK (OXY), 4.0 p.m.—Close: Kalundborg Programme.

ZEESEN (DJA, DJN), 1.0 p.m.—Announcements (German, English). 1.15—Advent Programme. 1.30—Fairy Tales. 1.45—News and Review in English (DJA), in Dutch (DJN). 2.0—Orchestra. 3.15—News and Review (German). 3.30—Advent Programme. 4.15—See 1.45. 4.30—Close.

ZEESEN (DJD, DJC), 5.0 p.m.—Announcements (German, English). 5.15—News in German. 5.30—Advent Programme. 5.45—For Children. 6.15—Light Music. 7.0—News in English. 7.15—Sports Review. 7.30—Concert. 7.45—Advent Programme. 8.30—Choral and Organ Concert. 9.0—News (German, English). 9.30—Close Down.

ZEESEN (DJA), 10.15 p.m.—Announcements (German, Spanish). 10.20—For Children. 10.45—News in German. 11.0—Advent Programme. 11.15—Cantata (Bach). 12.0—Reading. 12.15 a.m.—News (Spanish). 12.30—Topical Programme. 1.30—Vocal Quartet. 2.0—Close Down.

ZEESEN (DJC), 10.30 p.m.—Announcements (German, English). 10.45—News (German). 11.0—Advent Programme. 11.15—Bach Cantata. 12.0—Reading. 12.15 a.m.—Musical Programme. 1.15—News (English). 1.30—Vocal Quartet. 2.0—News (German). 2.15—Fairy-tale Music. 3.30—Close.

1.15—Talk. 1.30—Sports News. 1.45—Talk. 2.0—Concert. 4.0—News; Exchange. 2.30—Shipping. 4.45—Talk. 5.0—Talk. 5.15—Concert.

PITTSBURGH, 12 noon—Musical Clock. 1.0 p.m.—Devotions. 1.15—Organ. 1.45—Trio. 2.0—Breakfast Club. 2.30—Style and Shopping Service. 2.45—Sammy Fuller. 2.55—Minute Manners. 3.0—Harvest of Song. 3.15—Holman Sisters. 3.30—To-day's Children. 3.45—News; Radio Kitchen. 4.0—Honeymooners. 4.15—Tony Wons. 4.30—Melody Mixers. 5.0—Hank Keene. 5.15—Charles Sears (Tenor). 5.25—Market and Produce Report. 5.30—Farm and Home Hour. 6.30—Orchestra. 6.45—Music Guild. 7.30—Home Forum. 8.0—Orchestra. 8.45—Charm. 9.0—Betty and Bob. 9.15—East and Dumke. 9.30—Market Reports. 9.45—Orchestra. 10.0—Comic Capers. 10.15—Kiddies' Klub. 10.30—Singing Lady. 10.45—Orphan Annie. 11.0—Dan and Sylvia. 11.15—Nancy Martin. 11.30—Comedy Stars. 11.45—Lowell Thomas. 12.0—Amos 'n' Andy. 12.15 a.m.—Plantation Echoes. 12.30—Red Davis. 12.45—Dangerous Paradise. 1.0—Yeast Foamers. 1.30—Silver-Toppers. 1.45—To be announced. 2.0—Sinclair Minstrels. 2.30—Princess Pat Players. 3.0—Al and Pete. 3.15—Orchestra. 3.30—To be announced. 4.0—Uncle Tom and Betty. 4.15—Orchestra. 4.45—Orchestra. 5.15—Orchestra. 5.30—Orchestra. 6.0—Goodnight.

ROME, 11.0 p.m.—Announcements (English). Talk. Christmas Mass. Records. News. Close Down.

RUYSELEDE, 7.45 p.m.—News in French. 8.0—Brussels No. 2 Programme. 8.45—Records. 9.0—News in Flemish. 9.15—Close.

SCHENECTADY, 7.30 p.m.—Revolving Stage. 7.45—Comedy Sketch. 8.0—Dramatic Sketch. 8.15—Barry McKinley (Songs). 11.30—News. 11.35—Evening Brevities. 11.45—Sketch. 12.0—Current Events. 12.15 a.m.—High Priests of Harmony. 12.30—Market Reports. 12.50—News (Spanish). 1.0—Spanish Programme. 1.30—Concert. 2.0—A and P Gypsies. 2.30—House Party. 3.0—Contented Programme. 3.30—Forum. 4.0—Programme Résumé.

a.m.—Big Ben. Christmas Service from St. George's Chapel, Windsor. 11.30—Scottish Studio Orchestra. 12.0—Memories of Pantomime.\* 1.0 p.m.—Troxy Grand Orchestra. 1.45—Empire News. 1.50—Interval. 1.55—"Empire Exchange." 3.0—H.M. the King speaking from Sandringham. National Anthem. 3.10 app.—Carols.† 3.15—Eugene Pini and his Tango Orchestra. 3.55—John Armstrong (Tenor). 4.15—Empire News. 4.20—Northern Orchestra. 5.15—Dance Music. 5.45—Close Down.

Transmission 4 (6.0-9.30 GSD, GSB; 9.30-10.45 GSB, GSA) 6.0 p.m.—Big Ben. Empire News. 6.5—"Empire Exchange."\* 7.15—Amers' Military Band. 7.30—Christmas Party. 9.30—See Monday, 12.20 p.m.\* 9.45—Dance Music. 9.50—Dance Music. 10.0—Empire News. 10.5—Dance Music. 10.45—Close.

Transmission 5 (GSC, GSA) 11.0 p.m.—Big Ben. Dance Music. 11.35—"Empire Exchange."\* 12.45 a.m.—Empire News. 1.0—Close.

HUIZEN (PHI), 1.0 p.m.—Announcements. 1.10—Christmas Bells. 1.25—Orchestra. 1.50—Talk. 2.5—Song Recital. 2.20—Records. 2.55—Talk. 3.10—Orchestra. 3.35—Close.

MADRID (EAQ), 10.15 p.m.—News. 10.30—Spanish Music. 10.45—News. 11.0—Talk. 11.15—Seven Spanish Songs (Falla). 11.45—Light Music. 12.0-12.30 a.m.—Variety. 12.30—Close.

MOSCOW (50 m.), 8.0 p.m.—German Talk. 9.5—French Talk. 10.5—Dutch Talk.

PARIS (Radio-Colonial), 12 noon—Concert. 1.0 p.m.—News. 1.30—English News. 1.45—Shipping. 2.0—Talk. 2.15—Legal Talk. 2.30—Social Talk. 2.45—"L'île de Tulipatan" (Offenbach). 4.15—News. 5.0—Shipping. 5.15—Concert. 6.15—Talk. 6.30—Legal Talk. 6.45—Talk. 8.0—News. 8.30—To be announced. 10.30—Shipping. 10.45—Talk. 12.0—News. 12.45 a.m.—Shipping. 1.0—English News. 1.15—Talk. 1.30—Talk. 1.45—Legal Talk. 2.0—Concert. 4.0—News. 4.30—Shipping. 4.45—Talk. 5.0—Talk. 5.15—Concert.

(Bach). 3.15—News in German. 3.30—Christmas Play. 4.15—See 1.45. 4.30—Close Down.

ZEESEN (DJD, DJC), 4.55 p.m.—Announcements (German, English). 5.15—Topical Programme. 7.0—News in English. 7.15—Christmas Oratorio (Bach). 8.30—Children's Choir. 9.0—News (German, English). 9.30—Close Down.

ZEESEN (DJA), 10.15 p.m.—Announcements (German, Spanish). 10.20—Light Music. 10.45—News in German. 11.0—Topical Programme. 1.0 a.m.—News in Spanish. 1.15—Christmas Songs. 2.0—Close Down.

ZEESEN (DJC), 10.30 p.m.—Announcements (German, English). 10.45—News in German. 11.0—Topical Programme. 1.0 a.m.—Musical Programme. 1.15—News in English. 1.30—Christmas Songs. 2.0—News in German. 2.15—Orchestra. 3.30—Close Down.

## WEDNESDAY, Dec. 26

### EMPIRE

Transmission 1 (GSD, GSB), 8.30 a.m.—Linda Parker (Soprano); Eileen Joyce (Pianoforte). 9.15—Empire News. 9.20—"Empire Exchange."\* 10.30—Close Down.

Transmission 2 (11.0-12.30 GSG, GSF; 12.30-2.0 GSF, GSE), 11.0 a.m.—Big Ben. "Empire Exchange."\* 12.10 p.m.—Charles Manning's Orchestra. 12.45—Sports Talk.\* 1.0—B.B.C. Dance Orchestra.\* 1.45—Empire News. 2.0—Close.

Transmission 3 (2.15-3.45 GSE, GSB; 3.45-5.0 GSB, GSA; 5.0-5.45 GSA, GSD), 2.15 p.m.—Big Ben. Scottish Studio Orchestra. 2.45—See Monday, 12.20 p.m.\* 3.0—Jan Berenska and his Orchestra. 4.0—Fodens Motor Works Band. Olive Tomlinson (Pianoforte). 4.30—Empire News. 4.45—"Christmas Cabaret." 5.30—Victor Olof Sextet. 5.45—Close.

Transmission 4 (6.0-9.30 GSD, GSB; 9.30-10.45 GSB, GSA), 6.0 p.m.—Big Ben. Empire News. 6.15—Ballads.† 6.30—"B.B.C. Dance Orchestra." 7.30—"Mr. and Mrs. Bluebeard." 8.45—Suggia (Cello); Kate Winter (Soprano). 9.30—Sports Talk.\* 9.45—Dance Music.† 10.0—Empire News. 10.15—Carlyle Cousins. 10.30—Dance Music. 10.45—Close Down.

Transmission 5 (GSC, GSA), 11.0 p.m.—Big Ben. Dance Music. 11.15—Nightmare Series—6. "To be let unfurnished," by Gabrielle Vallings. 11.30—Dance Music. 11.45—Empire Orchestra. 12.45 a.m.—Empire News. 1.0—Close.

HUIZEN (PHI), 1.0 p.m.—Announcements. 1.10—Christmas Bells. 1.25—Trio. 1.50—Discussion. 2.10—Trio. 2.50—Records. 3.10—Close.

MADRID (EAQ), 10.15 p.m.—News. 10.30—Spanish Music. 10.45—News. 11.0—Talk. 11.15—Spanish Music. 11.45—Light Music. 12.0—Close.

MOSCOW (50 m.), 8.0 p.m.—Czech Talk. 9.5—English Talk. 10.5—German Talk.

PARIS (Radio-Colonial), 12 noon—Concert. 1.0 p.m.—News; Exchange. 1.30—English News. 1.45—Shipping. 2.0—Talk. 2.15—Talk. 2.30—Talk. 2.45—Quartet. 3.45—Talk. 4.15—News; Exchange. 5.0—Shipping. 5.15—A Play. 6.15—Talk. 6.30—Talk. 6.45—Talk. 7.0—Talk. 8.0—News; Exchange. 8.30—To be announced. 10.30—Shipping. 10.45—Talk. 12.0—News; Exchange. 12.45 a.m.—Shipping. 1.0—English News. 1.15—Talk. 1.30—Talk. 1.45—Talk. 2.0—Concert. 4.0—News; Exchange. 4.30—Shipping. 4.45—Talk. 5.0—Talk.

PITTSBURGH, 12 noon—Musical Clock. 1.0 p.m.—Devotions. 1.15—Organ. 1.45—Trio. 2.0—Breakfast Club. 2.30—Style and Shopping Service. 2.45—Sammy Fuller. 2.55—Minute Manners. 3.0—Harvest of Song. 3.15—Trio. 3.30—To-day's Children. 3.45—News; Radio Kitchen. 4.0—Honeymooners. 4.15—Tony Wons. 4.30—Band. 5.0—Hank Keene. 5.15—Charles Sears. 5.25—Market and Produce Report. 5.30—Farm and Home Hour. 6.30—Orchestra. 6.45—Words and Music. 7.0—

## MONDAY, Dec. 24

### EMPIRE

Transmission 1 (GSD, GSB), 8.30 a.m.—Big Ben. Christmas Music and Carols. 9.15—Memories of Pantomime. 10.15—Empire News; Dairy Produce Notes. 10.35—Close.

Transmission 2 (11.0-12.30 GSG, GSF; 12.30-2.0 GSF, GSE), 11.0 a.m.—Big Ben. Cinema Organ. 11.15—Musical Misadventure in a Barber's Shop.\* 12.0—Scottish Studio Orchestra. 12.20 p.m.—Talk: "Unusual Christmases." Vice-Admiral T. J. Hallett, C.B., C.B.E. 12.35—Haydn Heard's Band. 1.0—Arthur Salisbury and Orchestra. 1.40—Empire News. 2.0—Close.

Transmission 3 (2.15-3.45 GSE, GSB; 3.45-5.0 GSB, GSA; 5.0-5.45 GSA, GSD), 2.15 p.m.—Big Ben. Belfast Orchestra. Harry Dyson (Flute). 3.15—Sports Talk.\* 3.30—Hungarian Gipsy Band. 4.0—Carols. 4.45—Empire News. 5.5—Variety.† 5.15—Dance Music. 5.45—Close.

Transmission 4 (6.0-9.30 GSD, GSB; 9.30-10.45 GSB, GSA), 6.0 p.m.—Big Ben. Empire News; Dairy Produce Notes. 6.15—Christmas Music.† 6.30—Fred Hartley's Novelty Quintet. 7.15—Wireless Vocal Octet. 7.30—Betty Humby (Pianoforte). 8.0—Entertainment Hour. 9.0—Carol Service. 9.30—New Georgian Trio. 10.0—Empire News. 10.15—Dance Music. 10.30—Dance Music. 10.45—Close.

Transmission 5 (GSC, GSA), 11.0 p.m.—Big Ben. Carols. 11.30—Synco-pated Pianoforte Medleys. 11.45—Empire Orchestra. Newton Lees (Baritone). 12.45 a.m.—Empire News; Dairy Produce, Pig and Poultry Notes. 1.0—Close.

HUIZEN (PHI), 1.0 p.m.—Announcements. 1.10—Orchestra. 1.30—Talk. 1.50—Records. 2.10—Letter-box. 2.40—Orchestra. 3.0—Close.

MADRID (EAQ), 10.15 p.m.—News. 10.30—Spanish Music. 10.55—News. 11.0—Catalan Programme. 12.0—Close.

MOSCOW (50 m.), 8.0 p.m.—German Talk. 9.5—English Talk. 10.5—Hungarian Talk.

PARIS (Radio-Colonial), 12 noon—Concert. 1.0 p.m.—News; Exchange. 1.30—English News. 1.45—Shipping. 2.0—Talk. 2.15—Talk. 2.30—Talk. 2.45—Orchestra. 3.45—Sports News. 4.15—News; Exchange. 5.0—Shipping. 5.15—Recital. 6.15—Talk. 6.30—Talk. 6.45—Sports News. 8.0—News; Exchange. 8.30—To be announced. 10.30—Shipping. 10.45—Talk. 12.0—News; Exchange. 12.45 a.m.—Shipping. 1.0—English News.

## MONDAY, Dec. 24

1.15—Talk. 1.30—Sports News. 1.45—Talk. 2.0—Concert. 4.0—News; Exchange. 2.30—Shipping. 4.45—Talk. 5.0—Talk. 5.15—Concert.

PITTSBURGH, 12 noon—Musical Clock. 1.0 p.m.—Devotions. 1.15—Organ. 1.45—Trio. 2.0—Breakfast Club. 2.30—Style and Shopping Service. 2.45—Sammy Fuller. 2.55—Minute Manners. 3.0—Harvest of Song. 3.15—Holman Sisters. 3.30—To-day's Children. 3.45—News; Radio Kitchen. 4.0—Honeymooners. 4.15—Tony Wons. 4.30—Melody Mixers. 5.0—Hank Keene. 5.15—Charles Sears (Tenor). 5.25—Market and Produce Report. 5.30—Farm and Home Hour. 6.30—Orchestra. 6.45—Music Guild. 7.30—Home Forum. 8.0—Orchestra. 8.45—Charm. 9.0—Betty and Bob. 9.15—East and Dumke. 9.30—Market Reports. 9.45—Orchestra. 10.0—Comic Capers. 10.15—Kiddies' Klub. 10.30—Singing Lady. 10.45—Orphan Annie. 11.0—Dan and Sylvia. 11.15—Nancy Martin. 11.30—Comedy Stars. 11.45—Lowell Thomas. 12.0—Amos 'n' Andy. 12.15 a.m.—Plantation Echoes. 12.30—Red Davis. 12.45—Dangerous Paradise. 1.0—Yeast Foamers. 1.30—Silver-Toppers. 1.45—To be announced. 2.0—Sinclair Minstrels. 2.30—Princess Pat Players. 3.0—Al and Pete. 3.15—Orchestra. 3.30—To be announced. 4.0—Uncle Tom and Betty. 4.15—Orchestra. 4.45—Orchestra. 5.15—Orchestra. 5.30—Orchestra. 6.0—Goodnight.

ROME, 11.0 p.m.—Announcements (English). Talk. Christmas Mass. Records. News. Close Down.

RUYSELEDE, 7.45 p.m.—News in French. 8.0—Brussels No. 2 Programme. 8.45—Records. 9.0—News in Flemish. 9.15—Close.

SCHENECTADY, 7.30 p.m.—Revolving Stage. 7.45—Comedy Sketch. 8.0—Dramatic Sketch. 8.15—Barry McKinley (Songs). 11.30—News. 11.35—Evening Brevities. 11.45—Sketch. 12.0—Current Events. 12.15 a.m.—High Priests of Harmony. 12.30—Market Reports. 12.50—News (Spanish). 1.0—Spanish Programme. 1.30—Concert. 2.0—A and P Gypsies. 2.30—House Party. 3.0—Contented Programme. 3.30—Forum. 4.0—Programme Résumé.

SKAMLEBAEK (OXY), 6.0 p.m.—Close: Kalundborg Programme.

VATICAN CITY, 10.0-10.15 a.m.—Religious Information in Italian. 7.0-7.15 p.m.—Religious Information in Italian.

ZEESEN (DJA, DJN), 1.0 p.m.—Announcements (German, English). 1.15—Vocal Quartet. 1.45—News in English (DJA), in Dutch (DJN). 2.0—Topical Programme. 3.0—Short Musical Programme. 3.15—News in German. 3.30—Topical Talk. 4.15—See 1.45. 4.30—Close.

ZEESEN (DJD, DJC), 5.0 p.m.—Announcements (German, English). 5.15—News in German. 5.30—Vocal Quartet. 6.0—Topical Programme. 6.15—Bach Cantata. 7.0—News in English. 7.15—Christmas Concert. 9.0—News (German, English). 9.30—Close Down.

ZEESEN (DJA), 10.15 p.m.—Announcements (German, Spanish). 10.20—Christmas Programme. 10.45—News (German). 11.0—Christmas Oratorio (Bach). 12.15 a.m.—News (Spanish). 12.30—Topical Talk. 1.15—Christmas Wishes. 1.30—Children's Choir. 2.0—Close.

ZEESEN (DJC), 10.30 p.m.—Announcements (German, English). 10.45—News in German. 11.0—Christmas Oratorio (Bach). 12.15 a.m.—Christmas Wishes. 12.30—Christmas Play. 1.15—News in English. 1.30—Children's Choir. 2.0—News in German. 2.15—Light Music. 3.30—Close.

## TUESDAY, Dec. 25

Transmission 1 (GSD, GSB), 8.30 a.m.—Big Ben. B.B.C. Dance Orchestra.\* 9.15—See Monday, 12.20 p.m.\* 9.30—Empire Artists. 10.15—Empire News. 10.30—Close.

Transmissions 2 and 3 (10.45-12.30 GSG, GSF; 12.30-12.45 GSG; 12.45-1.0 GSG, GSB; 1.0-3.45 GSG, GSB, GSD; 3.45-5.0 GSB, GSA; 5.0-5.45 GSA, GSD) 10.45

a.m.—Big Ben. Christmas Service from St. George's Chapel, Windsor. 11.30—Scottish Studio Orchestra. 12.0—Memories of Pantomime.\* 1.0 p.m.—Troxy Grand Orchestra. 1.45—Empire News. 1.50—Interval. 1.55—"Empire Exchange." 3.0—H.M. the King speaking from Sandringham. National Anthem. 3.10 app.—Carols.† 3.15—Eugene Pini and his Tango Orchestra. 3.55—John Armstrong (Tenor). 4.15—Empire News. 4.20—Northern Orchestra. 5.15—Dance Music. 5.45—Close Down.

Transmission 4 (6.0-9.30 GSD, GSB; 9.30-10.45 GSB, GSA) 6.0 p.m.—Big Ben. Empire News. 6.15—Ballads.† 6.30—"B.B.C. Dance Orchestra." 7.30—"Mr. and Mrs. Bluebeard." 8.45—Suggia (Cello); Kate Winter (Soprano). 9.30—Sports Talk.\* 9.45—Dance Music.† 10.0—Empire News. 10.15—Carlyle Cousins. 10.30—Dance Music. 10.45—Close Down.

Transmission 5 (GSC, GSA), 11.0 p.m.—Big Ben. Dance Music. 11.15—Nightmare Series—6. "To be let unfurnished," by Gabrielle Vallings. 11.30—Dance Music. 11.45—Empire Orchestra. 12.45 a.m.—Empire News. 1.0—Close.

HUIZEN (PHI), 1.0 p.m.—Announcements. 1.10—Christmas Bells. 1.25—Trio. 1.50—Discussion. 2.10—Trio. 2.50—Records. 3.10—Close.

MADRID (EAQ), 10.15 p.m.—News. 10.30—Spanish Music. 10.45—News. 11.0—Talk. 11.15—Spanish Music. 11.45—Light Music. 12.0—Close.

MOSCOW (50 m.), 8.0 p.m.—Czech Talk. 9.5—English Talk. 10.5—German Talk.

PARIS (Radio-Colonial), 12 noon—Concert. 1.0 p.m.—News; Exchange. 1.30—English News. 1.45—Shipping. 2.0—Talk. 2.15—Talk. 2.30—Talk. 2.45—Quartet. 3.45—Talk. 4.15—News; Exchange. 5.0—Shipping. 5.15—A Play. 6.15—Talk. 6.30—Talk. 6.45—Talk. 7.0—Talk. 8.0—News; Exchange. 8.30—To be announced. 10.30—Shipping. 10.45—Talk. 12.0—News; Exchange. 12.45 a.m.—Shipping. 1.0—English News. 1.15—Talk. 1.30—Talk. 1.45—Talk. 2.0—Concert. 4.0—News; Exchange. 4.30—Shipping. 4.45—Talk. 5.0—Talk.

PITTSBURGH, 12 noon—Musical Clock. 1.0 p.m.—Devotions. 1.15—Organ. 1.45—Trio. 2.0—Breakfast Club. 2.30—Style and Shopping Service. 2.45—Sammy Fuller. 2.55—Minute Manners. 3.0—Harvest of Song. 3.15—Trio. 3.30—To-day's Children. 3.45—News; Radio Kitchen. 4.0—Honeymooners. 4.15—Tony Wons. 4.30—Band. 5.0—Hank Keene. 5.15—Charles Sears. 5.25—Market and Produce Report. 5.30—Farm and Home Hour. 6.30—Orchestra. 6.45—Words and Music. 7.0—

## WEDNESDAY, Dec. 26

Transmission 1 (GSD, GSB), 8.30 a.m.—Linda Parker (Soprano); Eileen Joyce (Pianoforte). 9.15—Empire News. 9.20—"Empire Exchange."\* 10.30—Close Down.

Transmission 2 (11.0-12.30 GSG, GSF; 12.30-2.0 GSF, GSE), 11.0 a.m.—Big Ben. "Empire Exchange."\* 12.10 p.m.—Charles Manning's Orchestra. 12.45—Sports Talk.\* 1.0—B.B.C. Dance Orchestra.\* 1.45—Empire News. 2.0—Close.

Transmission 3 (2.15-3.45 GSE, GSB; 3.45-5.0 GSB, GSA; 5.0-5.45 GSA, GSD), 2.15 p.m.—Big Ben. Scottish Studio Orchestra. 2.45—See Monday, 12.20 p.m.\* 3.0—Jan Berenska and his Orchestra. 4.0—Fodens Motor Works Band. Olive Tomlinson (Pianoforte). 4.30—Empire News. 4.45—"Christmas Cabaret." 5.30—Victor Olof Sextet. 5.45—Close.

Transmission 4 (6.0-9.30 GSD, GSB; 9.30-10.45 GSB, GSA), 6.0 p.m.—Big Ben. Empire News. 6.15—Ballads.† 6.30—"B.B.C. Dance Orchestra." 7.30—"Mr. and Mrs. Bluebeard." 8.45—Suggia (Cello); Kate Winter (Soprano). 9.30—Sports Talk.\* 9.45—Dance Music.† 10.0—Empire News. 10.15—Carlyle Cousins. 10.30—Dance Music. 10.45—Close Down.

Transmission 5 (GSC, GSA), 11.0 p.m.—Big Ben. Dance Music. 11.15—Nightmare Series—6. "To be let unfurnished," by Gabrielle Vallings. 11.30—Dance Music. 11.45—Empire Orchestra. 12.45 a.m.—Empire News. 1.0—Close.

HUIZEN (PHI), 1.0 p.m.—Announcements. 1.10—Christmas Bells. 1.25—Trio. 1.50—Discussion. 2.10—Trio. 2.50—Records. 3.10—Close.

MADRID (EAQ), 10.15 p.m.—News. 10.30—Spanish Music. 10.45—News. 11.0—Talk. 11.15—Spanish Music. 11.45—Light Music. 12.0—Close.

MOSCOW (50 m.), 8.0 p.m.—Czech Talk. 9.5—English Talk. 10.5—German Talk.

PARIS (Radio-Colonial), 12 noon—Concert. 1.0 p.m.—News; Exchange. 1.30—English News. 1.45—Shipping. 2.0—Talk. 2.15—Talk. 2.30—Talk. 2.45—Quartet. 3.45—Talk. 4.15—News; Exchange. 5.0—Shipping. 5.15—A Play. 6.15—Talk. 6.30—Talk. 6.45—Talk. 7.0—Talk. 8.0—News; Exchange. 8.30—To be announced. 10.30—Shipping. 10.45—Talk. 12.0—News; Exchange. 12.45 a.m.—Shipping. 1.0—English News. 1.15—Talk. 1.30—Talk. 1.45—Talk. 2.0—Concert. 4.0—News; Exchange. 4.30—Shipping. 4.45—Talk. 5.0—Talk.

PITTSBURGH, 12 noon—Musical Clock. 1.0 p.m.—Devotions. 1.15—Organ. 1.45—Trio. 2.0—Breakfast Club. 2.30—Style and Shopping Service. 2.45—Sammy Fuller. 2.55—Minute Manners. 3.0—Harvest of Song. 3.15—Trio. 3.30—To-day's Children. 3.45—News; Radio Kitchen. 4.0—Honeymooners. 4.15—Tony Wons. 4.30—Band. 5.0—Hank Keene. 5.15—Charles Sears. 5.25—Market and Produce Report. 5.30—Farm and Home Hour. 6.30—Orchestra. 6.45—Words and Music. 7.0—

Talk. 7.15—Wandering Minstrel. 7.30—Home Forum. 8.0—Trio. 8.15—Human Values. 8.30—Orchestra. 8.45—Charm. 9.0—Betty and Bob. 9.15—Karen Fladoc. 9.30—Market Reports. 9.45—Orchestra. 10.0—Comic Capers. 10.15—Kiddies' Klub. 10.30—Singing Lady. 10.45—Orphan Annie. 11.0—Dan and Sylvia. 11.15—Nancy Martin. 11.30—Comedy Stars. 11.45—Lowell Thomas. 12.0—Amos 'n' Andy. 12.15 a.m.—Plantation Echoes. 12.30—Red Davis. 12.45—Dangerous Paradise. 1.0—Crime Clues. 1.30—Lanny Ross. 2.0—Warden Laws. 2.30—John Charles Thomas. 3.0—To be announced. 3.15—Madame Sylvia. 3.30—Variety. 4.0—Uncle Tom and Betty. 4.15—Orchestra. 4.45—Orchestra. 5.15—George Olsen, Ethel Shutta. 5.30—Orchestra. 6.0—Goodnight.

ROME, 11.0 p.m.—Announcements (English). Talk. Excerpts from "Orpheus" (Monteverdi). News, etc.; Close Down.

RUYSSELEDE, 7.45 p.m.—News in French. 8.0—Brussels No. 1 Programme. 8.30—Records. 8.0—News in Flemish. 9.15—Close.

SCHENECTADY, 7.30 p.m.—Scissors and Paste. 7.45—Vic and Sade—Comedy Sketch. 8.0—Dramatic Sketch. 8.15—Barry McKinley (Songs). 11.30—News. 11.35—Evening Brevities. 11.45—"Billy Batchelor"—Sketch with Raymond Knight. 12.0—Topical Events by Jim Healey. 12.15 a.m.—Miners' Quartet. 12.30—Stock Reports. 12.50—News (Spanish). 1.0—Spanish Musical Programme. 1.30—Wayne King's Orchestra. 2.0—Variety with Fred Allen and Lennie Hayton's Orchestra. 3.0—Lombardo's Orchestra. 3.30—One Man's Family—Sketch. 4.0—Résumé.

SKAMLEBAEK (OXY), 6.0 p.m.—Close; Kalundborg programme.

VATICAN CITY, 10.0-10.15 a.m.—Religious Information in Spanish. 7.0-7.15 p.m.—Religious Information in Italian.

ZEESEN (DJA, DJN), 1.0 p.m.—Announcements (German, English). 1.15—Children's Choir. 1.45—News in English (DJA), in Dutch (DJN). 2.0—Light Music. 3.0—Reading. 3.15—News in German. 3.30—Dance Music. 4.15—See 1.45. 4.30—Close.

ZEESEN (DJD, DJC), 5.0 p.m.—Announcements (German, English). 5.15—News in German. 5.30—Christmas Music. 6.15—Christmas Play. 7.0—News in English. 7.30—Dance Music. 9.0—News (German, English). 9.30—Close.

ZEESEN (DJA), 10.15 p.m.—Announcements (German, Spanish). 10.20—Music; Topical Events. 10.45—News in German. 11.0—Orchestra. 12.15 a.m.—News in Spanish. 12.30—For Children. 1.15—Topical Programme. 1.30—Old Christmas Songs. 2.0—Close.

ZEESEN (DJC), 10.30 p.m.—Announcements (German, English). 10.45—News in German. 11.0—Orchestra. 12.15 a.m.—Topical Talk. 12.30—For Children. 1.15—News in English. 1.30—Old Christmas Songs. 2.0—News in German. 2.15—Chamber Music. 3.30—Close.

## THURSDAY, Dec. 27

## EMPIRE

Transmission 1 (GSD, GSB), 8.30 a.m.—Big Ben. Orchestral and Choral Concert. 9.15—See Wednesday, 11.15 p.m.\* 9.30—"Friendly Harmony."\* 10.15—Empire News. 10.30—Close Down.

Transmission 2 (11.0-12.30 GSG, GSF; 12.30-2.0 GSF, GSE), 11.0 a.m.—Big Ben. Bath Pump Room Orchestra. 11.35—See Wednesday, 11.15 p.m.\* 11.50—Cinema Orchestra. 12.35 p.m.—"Christmas Cabaret."\* 1.20—Organ. 1.40—Empire News. 2.0—Close.

Transmission 3 (2.15-3.45 GSE, GSB; 3.45-5.0 GSB, GSA; 5.0-5.45 GSA, GSD), 2.15 p.m.—Big Ben. Empire Orchestra. 3.0—Evensong. 4.0—Magyar Orchestra. 4.30—Empire News. 4.45—Organ. 5.0—Talk—"Under Big Ben." 5.15—Dance Music. 5.45—Close.

Transmission 4 (6.0-9.30 GSD, GSB; 9.30-10.45 GSB, GSA), 6.0 p.m.—Big Ben. Empire News. 6.15—Dance Music. 6.30—Reel Players. Robert Burnett (Baritone). 1. Hunter MacMillan (Pianoforte). 7.15—Wireless Military Band. Ronald Gourley (Entertainer). 8.0—

Café Colette Orchestra. 8.45—See 5.0 p.m.\* 9.0—Dale Smith (Baritone). 9.30—Sullivan and Edward German. 10.0—Empire News. 10.15—Talk—"The Charles Lamb Centenary." Desmond MacCarthy. 10.30—Dance Music. 10.45—Close.

Transmission 5 (GSC, GSA), 11.0 p.m.—Big Ben. See 6.30 p.m.\* 11.45—See Monday, 12.20 p.m.\* 12.0—"Christmas Cabaret."\* 12.45 a.m.—Empire News. 1.0—Close.

HUIZEN (PHI), 1.0 p.m.—Announcements. 1.10—Records. 1.25—Two Pianofortes. 1.40—Talk. 2.0—Two Pianofortes. 2.15—Records. 2.30—Talk. 2.45—Records. 3.0—Close.

MADRID (EAO), 10.15 p.m.—News. 10.30—Spanish Music. 10.55—News. 11.0—Talk. 11.15—See Madrid (EAJ7). 12.0-12.30 a.m.—Variety.

MOSCOW (50 m.), 8.0 p.m.—German Talk. 9.5—French Talk. 10.5—Spanish Talk.

PARIS (Radio-Colonial), 12 noon—Concert. 1.0 p.m.—News; Exchange. 1.30—English News. 1.45—Shipping. 2.0—Request Programme. 2.30—Talk. 2.45—Octet. 3.45—Sports News. 4.15—News; Exchange. 4.45—Talk. 5.0—Concert. 6.0—Request Programme. 6.30—Shipping. 6.45—Sports News. 8.0—News; Exchange. 8.30—To be announced. 10.30—Request Programme. 12.0—News; Exchange. 12.30 a.m.—Request Programme. 1.0—English News. 1.15—Songs. 1.45—Shipping. 2.0—Talk. 2.15—Sports News. 2.30—Concert. 4.0—News; Exchange. 4.30—Request Programme. 5.0—Shipping. 5.15—Talk. 5.30—Concert.

PITTSBURGH, 12 noon—Musical Clock. 1.0 p.m.—Devotions. 1.15—Organ. 1.45—Trio. 2.0—Breakfast Club. 2.30—Style and Shopping Service. 2.45—Sammy Fuller. 3.0—Ranch Boys. 3.15—Edward MacHugh. 3.30—Today's Children. 3.45—News; Radio Kitchen. 4.0—Hazel Arth (Contralto). 4.15—Tony Wons. 4.30—Frances Ingram. 4.45—Band. 5.0—Hank Keene. 5.15—Merry Macs. 5.25—Markets and Produce Reports. 5.30—Farm and Home Hour. 6.30—Orchestra. 6.45—Music Guild. 7.30—Home Forum. 8.0—Women's Federation. 8.15—Eastman School of Music. 9.0—Betty and Bob. 9.15—Sisters of the Skillet. 9.30—Market Reports. 9.40—Orchestra. 10.0—Stanleigh Malotte. 10.15—Kiddies' Klub. 10.30—Singing Lady. 10.45—Orphan Annie. 11.0—Dan and Sylvia. 11.15—Orchestra. 11.30—News. 11.35—Armand Girard. 11.45—Lowell Thomas. 12.0—Amos 'n' Andy. 12.15 a.m.—Gems of Melody. 12.45—Shirley Howard. 1.0—State Employment Bureau. 1.30—Silvertoppers. 1.45—Melodies. 2.0—Death Valley Days. 2.30—Musical Keys. 3.0—Roads that Move. 3.30—Economics. 4.0—Uncle Tom and Betty. 4.15—Orchestra. 4.45—Orchestra. 5.15—Orchestra. 5.30—Dancing in Twin Cities. 6.0—Goodnight.

RUYSSELEDE, 7.45 p.m.—News in French. 8.0—Brussels No. 1 Programme. 9.0—News in Flemish. 9.15—Close.

SCHENECTADY, 7.30 p.m.—Vaughan de Leath (Songs). 7.45—"Vic and Sade"—Comedy Sketch. 8.0—"Own Ma Perkins"—Dramatic Sketch. 8.15—Barry McKinley (Songs). 11.30—News. 11.35—Brevities. 11.45—"Billy Batchelor"—Sketch with Raymond Knight. 12.0—Richard Himber's Orchestra. 12.15 a.m.—John Kennedy. 12.30—Market Reports. 12.50—News in Spanish. 1.0—Rudy Vallee's Orchestra. 2.0—Show Boat. 3.0—Paul Whiteman's Music Hall. 4.0—Résumé.

SKAMLEBAEK (OXY), 6.0 p.m.—Close; Kalundborg Programme.

VATICAN CITY, 10.0-10.15 a.m.—Religious information in French. 7.0-7.15 p.m.—Religious Information in Italian.

ZEESEN (DJA, DJN), 1.0 p.m.—Announcements (German, English). 1.15—Music; Topical Events. 1.45—News in English (DJA), in Dutch (DJN). 2.0—Orchestra. 3.15—News in German. 3.30—Variety. 4.15—See 1.45. 4.30—Close Down.

ZEESEN (DJD, DJC), 5.0 p.m.—Announcements (German, English). 5.15—News in German. 5.30—Old Christmas Songs. 6.0—Topical Talk. 6.15—Light Music. 7.0—News in English. 7.15—Orchestra.

8.30—Music; Topical Events. 9.0—News (German English). 9.30—Close Down.

ZEESEN (DJA), 10.15 p.m.—Announcements (German, Portuguese). 10.20—Flute Music. 10.45—News in German. 11.0—"Music from Hamburg." 12.0—German Poetry. 12.15 a.m.—News (Portuguese). 12.30—For Women. 1.15—Light Music. 1.30—Dance Music. 2.0—Close Down.

ZEESEN (DJC), 10.30 p.m.—Announcements (German, English). 10.45—News in German. 11.0—"Music from Hamburg." 12.0—German Poetry. 12.30 a.m.—For Women. 1.15—News in English. 1.30—Dance Music. 2.0—News in German. 2.15—Dance Music. 3.30—Close Down.

## FRIDAY, Dec. 28

## EMPIRE

Transmission 1 (GSD, GSB), 8.30 a.m.—Big Ben. British String Quartet. 9.15—"Meet Dr. Thorndyke," presented by R. Austin Freeman. 9.30—"Christmas Cabaret."\* 10.15—Empire News; Announcements. 10.35—Close.

Transmission 2 (11.0-12.30 GSG, GSF; 12.30-2.0 GSF, GSE), 11.0 a.m.—Big Ben. Western Orchestra. 11.45—Organ. 12.15 p.m.—See Thursday, 5.0 p.m.\* 12.30—B.B.C. Dance Orchestra. 1.15—Coventry Hippodrome Orchestra. 1.40—Empire News; Announcements. 2.0—Close.

Transmission 3 (2.15-3.45 GSE, GSB; 3.45-5.0 GSB, GSA; 5.0-5.45 GSA, GSD), 2.15 p.m.—Big Ben. B.B.C. Dance Orchestra.\* 2.0—Midland Orchestra. 3.30—See 9.15 a.m.\* 3.45—Empire Orchestra. 4.30—Empire News; Announcements. 4.50—Hotel Metropole Orchestra. 5.15—Medvedeff's Balalaika Orchestra. Olga Alexeeva (Soprano). 5.45—Close.

Transmission 4 (6.0-9.30 GSD, GSB; 9.30-10.45 GSB, GSA), 6.0 p.m.—Big Ben. Empire News; Announcements; Fruit Market Notes. 6.20—Interlude. 6.30—Wireless Military Band. 7.15—B.B.C. Dance Orchestra. 7.35—Kentucky Minstrels. 8.35—Orchestra (Section C). Roy Henderson (Baritone). Wireless Chorus (Section C). 9.30—See Wednesday, 11.15 p.m.\* 9.45—Dance Music. 10.0—Empire News; Announcements. 10.20—Dance Music. 10.30—Dance Music. 10.45—Close.

Transmission 5 (GSC, GSA), 11.0 p.m.—Big Ben. Organ. 11.30—See Thursday, 5.0 p.m.\* 11.45—Memories of Pantomime.\* 12.45 a.m.—Empire News; Announcements. 1.5—Close.

HUIZEN (PHI), 1.0 p.m.—Announcements. 1.10—Orchestra. 1.30—Talk. 1.50—Orchestra. 2.15—Interlude. 2.30—Dance Music. 2.55—Close.

MADRID (EAO), 10.15 p.m.—News. 10.30—Spanish Music. 10.55—News. 11.0—Talk. 11.15—Spanish Music. 11.45—Light Music. 12.0—Close.

MOSCOW (50 m.) 8.0 p.m.—Czech Talk. 9.5—English Talk. 10.5—German Talk.

PARIS (Radio-Colonial), 12 noon—Concert. 1.0 p.m.—News; Exchange. 1.30—English News. 1.45—Shipping. 2.0—Talk. 2.15—Talk. 2.30—Talk. 2.45—Recital. 3.45—Talk. 4.15—News; Exchange. 5.0—Concert. 6.0—Shipping. 6.15—Talk. 6.30—Talk. 6.45—Talk. 7.0—Talk. 8.0—News; Exchange. 8.30—To be announced. 10.30—Shipping. 10.45—Talk. 12.0—News; Exchange. 12.30 a.m.—Shipping. 12.45—Talk. 1.0—English News. 1.15—Talk. 1.30—Talk. 1.45—Talk. 2.0—Concert. 4.0—News; Exchange. 4.30—Shipping. 4.45—Talk. 5.0—Talk. 5.15—Concert.

PITTSBURGH, 12 noon—Musical Clock. 1.0 p.m.—Devotions. 1.15—Organ. 1.45—Trio. 2.0—Breakfast Club. 2.30—Style and Shopping. 2.45—Sammy Fuller. 2.55—Minute Manners. 3.0—Harvest of Song. 3.15—Trio. 3.30—Today's Children. 3.45—News; Radio Kitchen. 4.0—To be announced. 5.0—Hank Keene. 5.15—Charles Sears. 5.25—Market and Produce Reports. 5.30—Farm and Home Hour. 6.30—Orchestra. 6.45—Words and Music. 7.15—Orchestra. 7.30—Home Forum. 8.0—Band. 8.45—Charm. 9.0—Betty and Bob. 9.15—Utility Hall. 9.30—Market

Reports. 9.40—Arm Chair Driver. 9.45—P.T.A. 10.0—Comic Capers. 10.15—Kiddies' Klub. 10.30—Singing Lady. 10.45—Orphan Annie. 11.0—Dan and Sylvia. 11.15—Nancy Martin. 11.30—Comedy Stars. 11.45—Lowell Thomas. 12.0—Amos 'n' Andy. 12.15—Plantation Echoes. 12.30—Red Davis. 12.45—Dangerous Paradise. 1.0—Jewels of Enchantment. 1.15—Dick Liebert. 1.30—Al Goodman. 2.0—To be announced. 2.30—Armour Programme. 3.0—Al Bernard and Paul Dumont. 3.30—Jewish Programme. 4.0—Uncle Tom and Betty. 4.15—Orchestra. 4.45—Orchestra. 5.15—Orchestra. 5.30—DX Club. 6.0—Goodnight.

ROME, 11.0 p.m.—Announcements (English). Talk. Symphony Concert. News; etc.; Close.

RUYSSELEDE, 7.45 p.m.—News in French. 8.0—Records. 8.30—Brussels No. 2 Programme. 8.45—Records. 9.0—News in Flemish. 9.15—Close.

SCHENECTADY, 7.30 p.m.—The Sizzlers. 7.45—"Vic and Sade"—Comedy Sketch. 8.0—"Ma Perkins"—Dramatic Sketch. 8.15—Dorothy Page (Songs). 11.30—News. 11.35—Evening Brevities. 11.45—"Billy Batchelor"—Sketch with Raymond Knight. 12.0—Miss Marion Williams and Orchestra. 12.30 a.m.—Market Reports. 12.50—News (Spanish). 1.0—Concert. 1.30—Farm Forum. 2.0—Waltz Time: Abe Lyman's Orchestra; Frank Munn (Tenor). 2.30—One Night Stand with Pick and Pat (Comedians). 3.0—"The First Nighter"—Sketch. 3.30—Talk by Glenn Frank: America's Hour of Decision. 3.45—Gothic Choristers. 4.0—Résumé.

SKAMLEBAEK (OXY), 6.0 p.m.—Close; Kalundborg Programme.

VATICAN CITY, 10.0-10.15 a.m.—Religious Information in German. 7.0-7.15 p.m.—Religious Information in Italian.

ZEESEN (DJA, DJN), 1.0 p.m.—Announcements (German, English). 1.15—Light Music. 1.30—Talk. 1.45—News in English (DJA), in Dutch (DJN). 2.0—"Music from Hamburg." 3.0—German Poetry. 3.15—News in German. 3.30—For Women. 4.15—See 1.45. 4.30—Close.

ZEESEN (DJD, DJC), 5.0 p.m.—Announcements (German, English). 5.15—News in German. 5.30—Musical Programme. 5.45—German Poetry. 6.0—"Music from Hamburg." 7.0—News in English. 7.15—Flute Music. 7.45—For Women. 8.30—Dance Music. 9.0—News (German, English). 9.30—Close.

ZEESEN (DJA), 10.15 p.m.—Announcements (German, Spanish). 10.20—Music; Topical Events. 10.45—News in German. 11.0—Nordic Evening. 12.15 a.m.—News in Spanish. 12.30—Radio Sequence. 1.15—Travel Talk. 1.30—Brass-wind Music. 2.0—Close.

ZEESEN (DJC), 10.30 p.m.—Announcements (German, English). 10.45—News in German. 11.0—Nordic Evening. 12.15 a.m.—Travel Talk. 12.30—Radio Sequence. 1.15—News in English. 1.30—Brass-wind Music. 2.0—News in German. 2.15—Wind Music. 3.30—Close.

## SATURDAY, Dec. 29

## EMPIRE

Transmission 1 (GSD, GSB), 8.30 a.m.—Big Ben. Dance Music. 9.0—See Thursday, 5.0 p.m.\* 9.15—Empire Orchestra. 10.15—Empire News. 10.30—Close.

Transmission 2 (11.0-12.30 GSG, GSF; 12.30-2.0 GSF, GSE), 11.0 a.m.—Big Ben. Scottish Studio Orchestra. 11.45—Cinema Organ. 12.15 p.m.—Northern Orchestra. Donald Edge (Pianoforte). 12.45—See Friday, 9.15 a.m.\* 1.0—Cinema Orchestra. 1.45—Empire News. 2.0—Close.

Transmission 3 (2.15-3.45 GSE, GSB; 3.45-5.0 GSB, GSA; 5.0-5.45 GSA, GSD), 2.15 p.m.—Big Ben. Midland Orchestra. 2.45—See Wednesday, 11.15 p.m.\* 3.0—Cinema Organ. 3.15—Memories of Pantomime. 3.45—Empire News. 4.30—Frank Titterton (Tenor); Peggy Cochrane (Violin). 5.0—Dance Music. 5.45—Close.

Transmission 4 (6.0-9.30 GSD, GSB; 9.30-10.45 GSB, GSA), 6.0 p.m.—Big Ben. Empire News. 6.20—"Christmas Cabaret."\* 7.0—"In Town To-night." 7.30—Hanwell Silver Band. Billy Mayerl (Piano-

forte). 8.15—See Friday, 9.15 a.m.\* 8.30—Music Hall. 9.30—Orchestra (Section C). 10.0—Empire News. 10.20—Dance Music. 10.40—Dance Music. 10.45—Close.

Transmission 5 (GSC, GSA), 11.0 p.m.—Big Ben. Dance Music. 11.45—See Friday, 9.15 a.m.\* 12.0—Empire Orchestra. 12.45 a.m.—Empire News. 1.0—Close.

HUIZEN (PHI), 1.0 p.m.—Announcements. 1.10—Records. 1.25—Talk. 1.45—Harmony Five. 2.0—Hetty Verbeek. 2.15—Radio Play. 2.35—Records. 2.50—Hetty Verbeek. 3.5—Harmony Five. 3.20—Records. 3.30—Close.

MADRID (EAO), 6.0—Spanish Music. 7.45—Light Music. 10.15—News. 10.30—Spanish Music. 10.45—News. 11.0—Talk. 11.15—Spanish Music. 11.45—Light Music. 12.0-12.30 a.m.—Variety.

MOSCOW (50 m.), 9.5 p.m.—French Talk. 10.0—Spanish Talk.

PARIS (Radio-Colonial), 12 noon—Concert. 1.0 p.m.—News. 1.30—English News. 1.45—Shipping. 2.0—Talk. 2.15—Talk. 2.45—Orchestra. 4.15—News. 5.0—Shipping. 5.15—Octet. 6.15—Talk. 6.30—Talk. 8.0—News. 8.30—To be announced. 10.30—Shipping. 10.45—Talk. 12.0—News. 12.30 a.m.—Shipping. 12.45—Talk. 1.0—English News. 1.15—Talk. 2.0—Concert. 4.0—News. 4.30—Shipping. 4.45—Talk. 5.0—Talk. 5.15—Concert.

PITTSBURGH, 12 noon—Musical Clock. 1.0 p.m.—Devotions. 1.15—Trio. 1.30—Organ. 2.0—Breakfast Club. 2.30—Style and Shopping. 2.45—Plough Boys. 3.0—Morin Sisters. 3.15—Edward MacHugh. 3.30—Home Forum. 3.45—News. 4.0—Homeymooners. 4.15—Kiddies' Klub. 5.0—Hank Keene. 5.15—Genia Fonariova. 5.30—Farm and Home Hour. 6.30—Farm Forum. 6.45—Orchestra. 7.0—Words and Music. 7.15—Song-fellows. 7.30—Orchestra. 8.0—Orchestra. 8.30—Songsters. 9.0—Orchestra. 9.15—High and Low. 9.30—To be announced. 10.0—Stanleigh Malotte. 10.15—Jackie Heller. 10.30—Bill and Alex. 10.45—To be announced. 11.0—Buddy Biller. 11.15—Orchestra. 11.30—News. 11.35—Harmony. 11.45—Master Builder. 12.0—John Herrick. 12.15 a.m.—Orchestra. 12.30—Orchestra. 1.0—Art in America. 1.20—Grace Hayes. 1.30—Orchestra. 2.0—City Party. 2.30—Barn Dance. 3.0—Behind the Law. 3.45—Orchestra. 4.0—Uncle Tom and Betty. 4.15—Orchestra. 4.30—Orchestra. 5.0—Far North Broadcast. 5.30—Orchestra. 6.0—Goodnight.

RUYSSELEDE, 7.45 p.m.—News in French. 8.0—Brussels No. 1 Programme. 9.0—News in Flemish. 9.15—Close.

SCHENECTADY, 7.0 p.m.—Opera. 11.30—News. 11.35—Brevities. 11.45—Briggs Sports Parade. 12.0—Concert. 12.30 a.m.—The Whistler and his Dog. 12.45—Music. 1.0—Swift Programme. 2.0—Songs. 2.30—Musical Comedy. 3.30—Dance Music. 4.0—Résumé.

SKAMLEBAEK (OXY), 6.0 p.m.—Close; Kalundborg Programme.

VATICAN CITY, 10.0-10.15 a.m.—Religious Information in Various Languages. 7.0-7.15 p.m.—Religious Information in Italian.

ZEESEN (DJA, DJN), 1.0 p.m.—Announcements (German, English). 1.15—Flute Music. 1.45—News in English (DJA), in Dutch (DJN). 2.0—Nordic Evening. 3.15—News in German. 3.30—Radio Sequence. 4.15—See 1.45. 4.30—Close.

ZEESEN (DJD, DJC), 5.0 p.m.—Announcements (German, English). 5.15—Review and News (German). 5.30—Music; Topical Events. 5.45—Nordic Evening. 7.0—Review and News (English). 7.15—Radio Sequence. 8.0—Club of Notions. 9.0—Review and News. 9.30—Close.

ZEESEN (DJA), 10.15 p.m.—Announcements (German, Spanish). 10.20—Music; Topical Events. 10.45—News (German). 11.0—Variety. 12.15 a.m.—News (Spanish). 12.30—Chamber Music. 1.15—Topical Talk. 1.30—Variety. 2.0—Close.

ZEESEN (DJC), 10.30 p.m.—Announcements (German, English). 10.45—News and Review (German). 11.0—Variety. 12.15 a.m.—Topical Talk. 12.30—Chamber Music. 1.15—News and Review (English). 1.30—Variety. 2.0—Review and News (German). 2.15—Variety. 3.30—Close.

## Without Distortion

### American Fairy Tale

Here is a pleasant story, which comes from the U.S.A. by way of the French weekly *L'Antenne*. A young author in Chicago, who had more brains than money, managed to get the following announcement broadcast in an advertising programme: "Young millionaire, tall, handsome, distinguished, wishes to marry a girl exactly like the heroine of—" and here he mentioned the name of his own novel. The result was amazing. Though everyone saw through the trick the publicity made the book a best seller, and within a few months (the fable tells us) the lucky author had actually become a millionaire. From the many girls who had written to him about the book, he then chose the one who was most like his heroine and married her, so that the promise made in his advertisement was literally fulfilled. It is a nice fairy tale, and I should like to think that it was true; but it breaks down on the question of finance, for I do not see how a man can become a millionaire—even in dollars—through the profits of one novel. My own experience—but never mind about that.

### A Careful Listener

A Gothenburg announcer, Olof Forsén, had an interesting experience a short time ago. He had gone to a party where most of the guests were unknown to him, and as he was being introduced to a group of people one of the men stood up and said, "Thank you, the introduction is not necessary." The announcer could not remember ever having met the man who thus claimed his acquaintance, but an explanation was soon forthcoming. "No, of course you don't know me," the man observed, "but I know you very well. I heard your voice a few moments ago, and I recognised you at once, though I did not know you were here. You see, I am blind, and I listen a great deal to broadcasting. I could never make a mistake about the voices of Swedish announcers." In the conversation which followed the announcer found that the blind listener had an amazingly retentive memory where speech was concerned. He knew every peculiarity of the announcer's intonation and pronunciation, and he remembered incidents and remarks which the announcer himself had forgotten. It is not often that a broadcasting official meets such a careful and methodical listener.

### Brighter Mornings

THERE are two schools of thought about the appropriate behaviour for the early morning. To some people the daily process which begins with getting out of bed and ends with the last mouthful of breakfast is a solemn rite which only austere silence can render tolerable; to others the early morning is a pleasant and cheerful time, calling for lusty singing in the bath and the cracking of merry jokes at breakfast. The juxtaposition of representatives of the rival schools of thought is generally unfortunate, if not actually fatal. The German broadcasting authorities have recently considered this question of early morning behaviour, and I learn from *Sieben Tage* that they have come down heavily on the side of joviality. Holding the view that people want to be amused at the beginning of the day, they have decided to engage comedians to announce the early concerts from the Deutschlandsender, and listeners to these programmes will thus be able to enjoy a good laugh while they are dressing or having breakfast. For my own part, I find the innovation vaguely horrifying, but that is probably because I belong to the other school of thought.

RECTILINEAR.

## Letters to the Editor

### Early Morning Cheeriness

SIR,—If rumour is to be trusted, the German station Deutschlandsender intends to introduce into its early morning transmission a strong note of "cheeriness." I am even told that comedians are to be turned loose before the microphones to make us laugh at breakfast time or earlier. By an amazing process of false logic, the authorities of the station argue that, because there is a common tendency towards low spirits before the day is well aired, this tendency should be counteracted by an exhibition of riotous merriment. The idea, apparently, is that the consequent toning up of our risible faculties will brace us for the day.

I neither know nor care whether I am an exception to the general rule, but, for myself, the sound of someone deliberately being funny during breakfast would sour the milk, turn the porridge lumpy, and cause the egg to harden in sheer self-defence.

I cannot believe that German listeners will for long stand a broadcast feature which morning after morning touches their cherished grouchingness in its tenderest spot. As for myself—but, of course, I need not listen to the Deutschlandsender at that time.

Yours faithfully,  
E. SCROOGE.

### Regional Programme on Long Waves

SIR,—In the issue of WORLD-RADIO, dated December 7, you publish a letter from a Manchester reader regarding the above.

Last night, the 10th inst., just after 8 p.m. I was having a "bat round," when I heard voices speaking in English on 950 metres. Listening a few moments I identified this as being the Midland Regional Programme, the particular item being "The Discussion of the five-day week," by Lord Trent and others.

Other listeners had apparently picked up this signal, judging by the howls which accompanied the transmission, otherwise the reception was quite clear; the signal having a spread of about 20 metres.

A nearby transmitter on a slightly lower wavelength was broadcasting a performance of Beethoven's Fifth Symphony, but I was unable to identify the station sending out this programme.

Just after 10 p.m. I again tuned in to this wavelength and found the Midland Regional programme still receivable.

Your technical explanation of the Manchester reader's query was somewhat beyond my non-technical understanding. Could you, therefore, explain this happening in non-technical language.\*

The set used is a 5-valve mains operated superhet with 60-foot outdoor aerial.

Yours faithfully,  
R. ALEXANDER.

Mapperley, Nottingham, December 11, 1934.

[\*We regret that we are unable to accede to our correspondent's request in this issue, as a non-technical explanation would occupy the space of a complete article. An article dealing with freak reception when using superhet. receivers will appear in WORLD-RADIO at an early date.—ED.]

### Reception of Europe in China

SIR,—In your issue of August 31 you printed a letter from M. R. Baker, asking if others had noticed the good reception conditions for hearing U.S. stations on the morning of August 26. That very day I had had such good reception of West Regional that I assumed that it

was coming from Droitwich, and wrote to you to that effect. Before I posted the letter I found that that station was not transmitting on the medium-wave belt, so I did not send it off.

Your correspondent's letter would indicate that sometimes, at least, good reception is more than a local condition and may extend over the greater part of the world. About 5.10 local time (August 26) I heard an announcement over the West Regional that an American violinist had contributed a certain item, and I picked up some twenty European stations that morning with fair loudspeaker strength, which is very unusual for this time of year in China. Reception since then has been rather disappointing, for, despite cool weather, there has not been a corresponding improvement till this morning, when European stations came through with amazing strength, perhaps the best experienced since last February. At 5.53 a.m. local time (10.53 p.m., October 8, Greenwich) I heard a couple of jazz songs on North Regional, which is a station that usually does not come through, and a woman singing a jazz song on the Midland Regional about 10.58 p.m. Greenwich time. (Midland Regional is the most difficult of all the B.B.C. stations to get.) West Regional, Scottish National, and Regional, London National, and Regional, etc., were all in fine fettle and if one faded out a little I would hop over to the next one.]

Was good reception general on the night of October 8?

Yours faithfully,  
T. E. PLEWMAN.  
Chengtu, West China, October 9, 1934.

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# FOREIGN BROADCASTING NEWS

FROM OUR CORRESPONDENTS

## U.S.A. "Guests" at Royal Wedding

THE activities of the British Royal Family are followed with an interest that amounts to positive affection by many Americans. They look upon the pomp and pageantry of a coronation, a royal wedding, or a State procession with wistfulness, for the picturesque trappings that revive the glamorous past of an older sister nation do not have their counterpart in the morning coats, top hats, and lines of sleek motor-cars that typify this more utilitarian democracy. The prospect of listening, therefore, to the wedding of the Duke of Kent and Princess Marina aroused exceptional interest in the United States.

The entire ceremony, the gay street scenes, and the pealing of the bells were rebroadcast in that country by the National Broadcasting Company and the Columbia Broadcasting System in one of the best trans-Atlantic transmissions ever to be made and received.

Although the broadcast of the wedding began in this hemisphere at the very early hour of 5.45 a.m. in the East, and on the Pacific Coast when the night clubs were closing from the previous day's gaiety, thousands of Americans kept an early appointment with their sets. Your Correspondent was reminded of the event as he was waiting among a group of people for the elevator in a Washington apartment house.

"Are you going to hear the wedding tomorrow?" asked one elderly lady of another. "Well, why not come down to my place at half-past five and we'll have some coffee?"

The task of getting up so early showed a real devotion, for Thursday, November 29, was Thanksgiving Day in the United States—a national holiday that is always an excuse for revelry on the eve. Those who did make the effort were amply rewarded, however, for the completeness of the word picture, and our own apparent proximity all the time to the moving centre of interest, made us marvel at the perfection of the technical arrangements.

In their issue of Wednesday, November 28, *The New York Times* printed an excerpt from the anthem "Alleluia, Alleluia," specially written for the occasion by Dr. Bullock. The full choral part and organ accompaniment were given. It was delightful to hear the strains coming from an open window on Friday evening as your Correspondent walked home. The piano was evidently a worn-out upright, and the playing amateurish, but, to this exiled Englishman, it was thrilling.

## Christmas Fare from Vienna

It is already settled that the chief feature of Ravag's New Year's Eve programme will be a relay of Johann Strauss's *Die Fledermaus* from the State Opera House, followed by a variety programme, continuing until 2 a.m. (G.M.T.), from a Vienna cinema. The Christmas Eve programme will include the "Christmette," relayed from the tiny church in the Tauern Mountains, 5,300 feet above sea-level, from 10.50 till 11.30 p.m., preceded by trumpet-blowing from the spire of St. Stephan's Cathedral in Vienna at 10.40. A pretty feature of the Ravag programme for December 24 will be the reading by Maria Mayer, the famous actress, at 7.40 p.m., when all Austrian families will be gathered together, of an essay called "To Those Who Have No Christmas Tree." On Christmas Day Johann Strauss's *Night in Venice* will be performed in the Ravag studio by the Vienna

Philharmoniker and a distinguished company of light opera artists. Ravag has tried to furnish artists with the maximum of employment during the Christmas season.

## Exiles Hear Voices from Home

Following the practice in previous years, the Danish broadcasting service has again arranged for personal broadcasts of Christmas greetings to Greenlanders and Danes living in Greenland to be made by their relatives and friends in Denmark. In addition, similar broadcasts will be made on December 22 and 23 by relatives of people living in the Faroe Islands.



TWO NEW WOMEN ANNOUNCERS: (left) Senhora Maria de Rezende, first woman announcer of the Emissora Nacional, Lisbon; (right) Fraulein Hilda Schmeck, whose voice is heard in the Leipzig programmes

## More News for French Listeners

M. Georges Mandel, the Minister of Posts, Telegraphs, and Telephones, is taking steps to increase both the quantity and the variety of the news items from the State stations. He has also given instructions (in fulfilment of a promise made by his predecessor) that whenever the names of composers and singers are announced, the names of lyric writers must also be given. He also intends to institute a "Listening Service," in order to establish a system of recording French and foreign transmissions, and thus avoid possible disputes concerning the interpretation thereof.

## The Goncourt Prize

The Goncourt Prize for literature, which is awarded annually, has been the subject of a short outside broadcast during recent years, and this year wireless has been even more to the fore. The result was announced from the Restaurant Drouand as usual; M. Roget Vercel, the winner, was listening, and so received rapid advice of his success. He took the first train to Paris, and on arrival was interviewed in front of the microphone. He has written a play for the microphone, which was produced by Radio-Paris in 1929, and has also adapted for broadcasting other short plays.

## German Officials Aid Street Collection

The great "drive" on December 8, arranged by the German Propaganda Ministry in aid of the Winter-Help Fund, when members of Government Ministries, the Ministers themselves, prominent actors and actresses, and the directors and staff of the Berlin "Broadcasting House" took part in street collections, proved a great success. Dr. Goebbels, the Minister of Propaganda, was able to announce that 3,500,000 Marks had been collected throughout Germany. The television reception car from the German Post Office laboratories stood in the Oranienburger-

strasse and demonstrated sight and sound television reception from the ultra-short-wave high-definition television transmitters at Witzleben to all persons who contributed to the Fund.

## Number of German Listeners

November brought a further increase in German licence figures. On December 1 they totalled 5,911,330, or 185,936 more than on November 1. Germany now has about nine licences per 100 of the population.

## Plans for the Athens Station

In an official communication issued in Greece, the Minister for Communications announces that he has suggested certain modifications in the plan for a broadcasting station at Athens which had been submitted by a well-known firm of contractors. The majority of these modifications have been accepted, and the Wireless Council of the Ministry is shortly meeting again in order to discuss the situation further. Certain litigation between the Government and a contracting company is pending, but it is hoped that Radio-Athens will have begun to operate in the course of next year.

## Cheaper Licences for Polish Artisans?

The Polish Ministry of Posts and Telegraphs, which controls broadcasting services throughout the country, has approached Polskie-Radio with a proposal for a reduction of the licence fee for town artisans, and has suggested that Polskie-Radio should prepare a detailed scheme for such a reduction. The principles of the privilege, it is understood, would be similar to those followed in the reduction already granted to agricultural workers. It is possible that the whole question of licence fees will shortly be reconsidered.

## Old Friends in New Garb

A series of dramatisations of the classics by the newly-organised American Drama Guild is being radiated over the American Broadcasting System network. The series includes operatic dramatisations, and the music of the operas is being retained as a background while the spoken word conveys to listeners the moods of the scenes and the heightening of the dramatic tension of the plots. *Pagliacci* was the inaugural programme of the series. Mr. Ivan Firth, of the National Broadcasting Company, plays lead in these productions.

## For the Trans-Atlantic Listener

Although arrangements have not been entirely completed, it is possible to give many details of the Christmas programmes that listeners to U.S.A. stations will hear over NBC networks. Orchestras, Grand Opera, drama, and Church services from foreign countries and at home will be heard frequently on Christmas Eve and Christmas Day. An unusually interesting programme will come from the Catacombs of Rome: a liturgical service of ancient songs will be sung by the Benedictine Choir of San Anselmo's Church, Rome, and a description of the Domitilla Catacombs will be given. *Hänsel and Gretel* will be the Christmas opera from the stage of the Metropolitan Opera House on the afternoon of Christmas Day, and there will be a morning carol service in German from the Zion Lutheran Church in Baltimore, one of the oldest and best-known churches in the United States.



## EMPIRE PROGRAMME LETTERS

## More Talks and Short Plays

SIR,—It is several months now since my husband and I invested in a wireless set, and many times I have been moved to express in writing my great appreciation of your Empire programmes, but somehow I have never actually come to the point. But it is now high time to give the B.B.C. my heartiest thanks for entertaining us so well in this lonely place. And it is a bit lonely, as we are fifty miles from Baghdad and civilisation, and are the only English people in this little town on the banks of the Euphrates.

I have been out in Iraq just two years, and I have lived in this district the whole time, always having the honour of being the only white woman for a radius of at least fifty miles. But one's own company is not vastly exciting, and not until six months ago had I a chance to change it; but now that a box of tricks brings London and the world into my own house, what more can I wish for?

I can never get over my first wonder at broadcasting, which enables me to hear a concert from Bodmin, good old Devonshire spoken, or a service from St. Martin's, while I sit in the garden before dinner watching the lights from the mosque and town opposite me, shivering and glistening on the waters of the Euphrates as they glide on their way to Babylon (by means of a canal which used to be the old river bed) and so to Basra.

At the moment I am quite alone in the house except for three dogs, three cats, a cook, and a sweeper, as my husband has gone on tour. Without the wireless set I should feel terribly lonely, but all I have got to do is to pull out a switch, twiddle two knobs, and in a few minutes I shall hear the friendly announcer's voice, which dispels all feeling of isolation at once. If only the announcers knew how their voices cheer the lonely "memsahibs" of the world they would soon become "swollen-headed," but announcers sound too nice for that to happen!

Transmission 1 comes in very well on 25 metres in the mornings, and I do the family mending to music, the loudspeaker by my side on the verandah. Transmission 2 is no good for us at all, but Transmission 3 is excellent, until the change-over to GSB. As I write, listening to the Enigma Variations from a concert at Bournemouth, there is a sudden silence, and no more concert for me. I must now turn to Europe until the news at 8 p.m. (local time), when, thank goodness, conditions have improved. What is the point of this infuriating change?

I have no criticisms to make, except for this point, and I should like more talks and short plays in Transmission 3. All the rest is praise and congratulations, primarily to the B.B.C. for providing such good programmes, and secondly, to the countless people who take part in them, especially to Mr. Howard Marshall, who makes us exiles feel so horribly homesick.

All good wishes from a grateful listener.

Yours faithfully,

HELEN M. MEADE.

Iraq, November 7, 1934.

## Armistice Day Programme

SIR,—We were exceedingly impressed with the outstanding broadcast of your Armistice Day programme yesterday. We were fortunate that on such a day the reception excelled that on almost any other previous occasion. We are indeed indebted to the Empire broadcasting service.

May I take the opportunity to suggest two things: first, we were once more thrilled yes-

terday to be in at the Epilogue; we regret that it has been deleted from Transmission 4. Can the Epilogue not be included? It is the occasion in the week when we are "nearest home." Secondly, is it not possible to fix the hour for the Empire News Bulletin? It varies at present from day to day. I suggest 10 p.m. G.M.T.; by the time the Rio short-wave station begins to tune in at 10.20 and drown most other stations with an approximate wavelength, the day's most important item, the News, would then be over.

With renewed expressions of our gratitude,  
Yours faithfully,

C. B.

São Paulo, Brazil, November 12, 1934.

## Programmes Much Better Balanced

From Sind, India:—

"In the first place, may I congratulate you on the very great improvements in your Empire programmes made in the past year? The programmes now are, to my mind, very much better balanced than they were, and, although I must personally confess to being rather a 'Philistine' in regard to music, this opinion is, I am glad to say, strongly supported by the remainder of your very small coterie of listeners in this very out-of-the-way station.

"You must have been told *ad nauseam* by various listeners in lonely stations what a wonderful change the working of the Empire transmitter has brought about in the monotony of our lives; but I cannot refrain from repeating it to you now. During our very long and very trying hot weather (six months of it) there are seldom more than two of us in the station at a time, and the benefit we receive from your programmes can well be imagined.

"We suffer a good deal from very strong atmospherics, particularly during the hot weather, but so long as you are working on the shorter waves—i.e., under 25 metres—reception is uniformly satisfactory.

"One word of criticism, or rather of suggestion. During the past week or two you have changed the frequencies of No. 3 Transmission, and for the latter part of the evening are working on GSA and GSB. This is definitely disadvantageous to us here, as we find that whilst in the earlier part of the evening, when GSE and GSF are working, reception is excellent and comparatively free from interference, the change to GSA and GSB means an immediate increase in the atmospheric nuisance, to such a point that GSA is frequently of low programme value, and GSB only a little better."

## Bournemouth Winter Concerts

From Gurdaspur, Punjab, India:—

"The programmes in Transmission 3 are now very interesting, except for my old complaint of insufficiency of standard music. I am glad that the Bournemouth winter concerts have started, and listened with pleasure to the first one last Wednesday—at least for a short time, as you rudely cut them out in the middle of a Mozart Symphony to give us some unusually idiotic Variety from the Midland studio. Last winter you gave us one and a half hours of these concerts, i.e., in their entirety; but we seem to be getting less and less this year. It was all the more disappointing in that both GSF and GSE were rolling in at tremendous strength, with a complete absence of fading."

## A Link with British Tradition

From East Brisbane, Queensland, Australia:—

"There must be numbers like myself who, having left the Old Country about thirty-four years ago, and brought up a family in this

new land of my adoption, feel that short-wave broadcasting has supplied that link which fosters the British sentiment and tradition in our children."

## Fine Reception

From Johannesburg, South Africa:—

"On October 20, at 7.17 p.m., S.A. time, I had the pleasure of hearing on 31 m. the Piccadilly Hotel Band playing dance music. Thank you for the fine reception we receive in this country from Daventry."

## Appreciation—

From Halifax, Nova Scotia, Canada:—

"I simply had to drop you a line and tell you how we enjoy the programmes. I listened to the Prize Band, and now the Celebrity Trio are coming through from London. It is now 3.30, our time, and this band will be 'on the air' again soon. They were just wonderful, and their programme was balanced so well. We enjoy hearing English voices once again."

## —From the Backwoods

From New Brunswick, Canada:—

"I enjoy your broadcasts immensely and the reception here in the backwoods of New Brunswick is good. It is the only communication I have with my native land, which I left ten years ago."

## A Musical Treat

From Barbados, British West Indies:—

"I cannot let the wonderful programme of last night (October 29) pass without writing you a word of appreciation; it was enjoyed by all your listeners in Barbados. The Studio Orchestra was grand, and the organ recital was beautiful. It was such a treat having real music, instead of records and Blatterphone things, for they make such a whirr on the radio—you can always tell them.

"Could you not give us a programme like last night a little more often? It is greatly appreciated, instead of so much jazz. The organ, in particular, is wonderful on a radio."

## Strange Voices in the Desert

From Safaga, Upper Egypt:—

"As a listener of just less than one year's standing (in a very remote region, the Red Sea coast of Egypt, 250 miles south of Suez), I have greatly enjoyed the Empire programme service and am specially appreciative of the News Bulletins, as only one mail arrives here weekly, on Fridays, by which we receive local newspapers dated from the previous Thursday up to the immediately preceding Wednesday—so that, while some of the news is only two days late, most of it is much later. This includes the usual Saturday's sports news, so that we get it from the B.B.C. six days ahead of the newspapers. The Sunday Church Services broadcast are also much appreciated, as are all the other broadcasts, which bring us so much more in touch with Home than formerly.

"Actually, I am one of four (Scots) situated at this place, which is the port of a mining company, whose mines are twenty miles distant inland—and reside in the northernmost dwelling of the camp, so that my nearest neighbour on that side is fifty miles away, at an oil company's camp that distance north. I suppose it must be rather eerie for any stray Arab camelman or fisherman arriving from the north into the camp to pass my house on a dark evening and hear the strains of foreign music or speech, or his own from Cairo or Alexandria, pouring out into the night, after his trek through fifty miles of uninhabited, silent desert."

# Foreign Languages

## FRENCH

Tuesdays, 6.50—7.20 p.m. (National Programme)  
**A. Remarks on pronunciation.**

The French vowel No. 7 is o. It occurs in words such as *beau, chaud, chapeau*, in others such as *côte, tôt, gros, mot, dossier, curiosité*.

(a) **Position of the tongue.** The true back of the tongue is raised to about two-thirds of the distance between the open and close-vowel positions, o being a half-close vowel.

(b) **Position of the lips.** The lips must be protruded and rounded, leaving only a small round opening.

Muscular effort is necessary to attain the right tongue and lip positions.

How to acquire the sound:—

Students should start with *saw* or *ought*, then with the necessary muscular lip effort repeat the sound with lips pushed forward and bunched up into a small round opening.

Common errors to be avoided:—

(1) If final, as in *chapeau, tableau*, the tendency is to substitute for the pure French o the English diphthong, as in *go*, so.

(2) Sometimes, misled by spelling, the student will be tempted to replace the French vowel sound No. 7 by the French vowel sound No. 6. Great care should be taken to avoid both mistakes. If back raising of the tongue and small round opening of the lips with the necessary muscular effort be carefully studied the pure French o should be easily produced.

**B. Key to Exercise B.** P. 36, Nelson's First French Course.

- (1) Il n'y a pas de grosses vagues sur la mer.
- (2) La fille du fermier porte une robe blanche.
- (3) Nous donnons du pain aux petits garçons.
- (4) Marie porte une robe blanche au bord de la mer.
- (5) Pourquoi donnez-vous du lait au chien?
- (6) Il y a des petites filles dans l'eau.\*
- (7) Ils donnent de l'herbe à la vache blanche.
- (8) Les enfants sur la plage portent de jolis costumes de bain.

\* Instead of the usual *de* for *des* before an adjective (see note top of page 30 in the Course), you use *des* here because "petites filles" is considered as a compound noun. You would say in the same way "*des* petits garçons," whereas in the last sentence, for instance, you apply the usual rule and say "*de* jolis costumes."

**Key to Additional Exercises** which are given on p. 18 of the **French Pamphlet**.

Sentences to be developed after the model sequence given in *D. Homework. Part I*.

(1) Il demande deux costumes de bain aux garçons.

Qui est-ce qui demande deux costumes de bain aux garçons?

C'est lui qui les leur demande.

Qu'est-ce qu'il demande aux garçons?

Il leur demande deux costumes de bain.

A qui est-ce qu'il demande des costumes de bain? Il en demande aux garçons.

Est-ce qu'il demande des costumes de bain aux garçons? Oui, il leur en demande.

Est-ce qu'il demande des sandalettes (sandals) aux garçons? Non, il ne leur en demande pas.

Combien de costumes est-ce qu'il leur demande?

Il leur en demande deux.

(3) Nous apportons cinq robes aux filles du paysan.

Qui est-ce qui apporte cinq robes aux filles du paysan? C'est nous qui les leur apportons. Qu'est-ce que nous apportons aux filles du paysan? Nous leur apportons cinq robes. A qui est-ce que nous apportons des robes? Nous en apportons aux filles du paysan. Est-ce que nous apportons des robes aux filles du paysan? Oui, nous leur en apportons. Est-ce

que nous apportons des chapeaux aux filles du paysan? Non, nous ne leur en apportons pas.

Combien de robes est-ce que nous leur apportons? Nous leur en apportons cinq.

(5) Madame donne un aiguillon au conducteur de bœufs.

Qui est-ce qui donne un aiguillon au conducteur de bœufs? C'est Madame qui le lui donne.

Qu'est-ce que Madame donne au conducteur de bœufs? Elle lui donne un aiguillon.

A qui est-ce que Madame donne un aiguillon? Elle le\* donne au conducteur de bœufs.

Est-ce que Madame donne un aiguillon au conducteur de bœufs? Oui, elle le lui donne (or, elle lui en donne un).

Est-ce que Madame donne un fouet (whip) au conducteur de bœufs? Non, elle ne lui en donne pas.

Combien d'aiguillons est-ce que Madame lui donne? Elle lui en donne un.

\* Note that here you use *le* instead of *en*, because it is *one* only. You could use *en*, but then you must add *un* after the verb. The sentence would run thus: *elle en donne un* au conducteur de bœufs. In the same way you would say "j'en ai" for I have *some* or *a few*, and j'en ai *un* or je l'ai when speaking of one thing only.

II. Sentences to be re-written, putting singular words for all the plural words.

- (1) La bicyclette a un guidon.
- (2) Je ne vois pas le tronc du peuplier.
- (3) Le soulier de la petite fille est près de la meule de blé.
- (4) Le petit garçon porte une culotte et le grand garçon porte un pantalon.
- (5) Sur l'image je ne vois pas le képi du gendarme.
- (6) Il ne donne pas de costume de bain à l'élève.
- (7) Le fils du paysan est aux baignoires de mer.\* Elle ne lui en apporte pas.

\* *aux baignoires* de mer never in the singular. We say "*les baignoires* de mer."

**C. Key to Exercise A.** French Course, p. 125.

- (1) Le petit garçon sur la plage ne porte pas de casquette.
- (2) La route est étroite dans le village.
- (3) Les fleurs dans les champs sont blanches. Il n'y a pas de fleurs sous les arbres.
- (4) L'herbe dans le petit champ près de l'église est courte et sèche.
- (5) De quelle couleur est l'encre sur le bureau de Jean? Elle est bleue.
- (6) Pourquoi donnez-vous l'herbe aux bœufs? Ils n'ont pas faim.
- (7) Les petits garçons à l'école portent des vestes bleues et des casquettes rouges.

**Key to Exercise B.** French Course, p. 125.

- (1) Nous avons des poules blanches à notre petite ferme.
- (2) Le paysan donne à ses bœufs de l'eau fraîche de la rivière.
- (3) La jolie église grise est sur le bord de la route dans le village.
- (4) Il n'y a pas de feuilles vertes sur les hauts (or les grands) peupliers.
- (5) Les cochons du fermier sont gros mais ils ne sont pas jolis.
- (6) Combien y a-t-il d'enfants sur la plage? Je vois cinq filles et sept garçons.
- (7) Les oiseaux dans le bois sur la montagne ont faim.
- (8) Il y a de jolies fleurs rouges et bleues dans le jardin devant la grande maison blanche.

E. R. MONTEIL.

## GERMAN

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

**Weihnachten und die Hörergruppe** (not from the text-book). Marion, Ilse, Helen, Viktor, Marion: Gestern war schon die letzte Rundfunkstunde vor Weihnachten. Wie schnell sind die ersten zwölf Stunden vorübergegangen! Ilse: Ich habe einen Vorschlag: wollt ihr alle drei am Sonntag zu mir zum Tee kommen? Dann können wir zusammen Weihnachten feiern. Helen: O ja, das ist ein guter Gedanke.

Das wollen wir tun. Wir müssen dann aber auch ein Tannenbäumchen haben. Viktor: Gewiss, wir wollen einmal (*just*) ein richtiges deutsches Weihnachtsfest feiern. Darf ich einen kleinen Baum besorgen (*get*), Ilse? Ich bringe ihn am Sonntag nachmittag mit. I: Das ist sehr nett von Ihnen, Viktor—Kommt doch (*do come*) schon vor dem Tee zu mir! Dann können wir alle miteinander den Weihnachtsbaum schmücken. M: Gern(e). Und womit wollen wir ihn schmücken (*What shall we decorate it with*)? Ich habe ihn am liebsten ganz einfach, nur mit Kerzen. H: Wir hatten als Kinder immer einen sehr bunten Baum, aber mir gefällt jetzt auch ein grüner Baum mit weissen Kerzen und Silberfäden (*silver foil*) besser. I: Ich mache unser Wohnzimmer als Weihnachtszimmer zurecht, lege eine weisse Decke auf den Tisch, und darauf können wir unsern Baum stellen. M: Und wir singen auch deutsche Weihnachtslieder (*carols*), nicht wahr? Eins der schönsten haben wir ja (*or doch, as you know, or, of course*) gerade gelernt, "Es ist ein Ros entsprungen." Ich habe die Noten (*music*) dazu und kann euch auf dem Klavier begleiten. H: Und "Stille Nacht, heilige Nacht" können wir vielleicht auch singen. Das ist das allerschönste Weihnachtslied. V: Ich kann zwar (*it is true*) nicht singen, aber ich werde mitsummen (*approx., join in by humming*).—Nun muss ich aber leider gehen. Ich habe ein paar kleine Weihnachtsüberraschungen für Sie, die (*these, or, them*) werde ich mitbringen. M: Fein! Die (*these, or, them*) können wir unter dem Weihnachtsbaum aufbauen (*lit. build up*), wie man es in Deutschland macht. V: Also (*well then*) auf Wiedersehen am Sonntag bei unserer kleinen deutschen Weihnachtsfeier.

Stille Nacht, heilige Nacht!

Quiet night, holy night.

Alles schläft, einsam wacht

All sleep; lonely is awake

nur das traute, hochheilige Paar.

only the cherished holy couple.

Holder Knabe im lockigen Haar,

Gracious child with curly hair,

schlaf' in himmlischer Ruh!

sleep in heavenly peace.

**Key to Lesson 23, continued, p. 115.**

10. Der Himmel, der grau gewesen war . . . Die Sonne, die wir nicht gesehen hatten . . . durch den Wald, dessen Wege noch nass waren. Der Hund, den wir mitgenommen hatten, verfolgte einen Hasen, den er aber nicht erreichte. 11 . . . einen Freund, der viel gesehen hat . . . von den Städten, in denen er gewesen ist und von den Leuten, die er kennengelernt hat. . . von einem Mann, mit dem er gefahren war. Der Mann, dessen Namen er vergessen hatte . . . einen Traum, in dem sie ihren Mann sah. . . in einem Zug, der mit grosser Geschwindigkeit fuhr. Die Brücke, deren Pfeiler nicht stark waren . . . Der Traum, den sie einer Freundin erzählte . . . der Zug, mit dem er gefahren war . . . Nur die Reisenden, die im letzten Wagen waren . . . in der gleichen Nacht, in der seine Frau den Traum gehabt hatte. **The German equivalents** for the English expressions, based on Lesson 7, given in the last issue of WORLD-RADIO.

1. Das Wirtshaus steht in (1) einer engen Dorfstrasse.
2. Der Hausierer geht in die Wirtsstube (or Gaststube).
3. Ich habe diesen kleinen Abreis kalender (ab-reissen, to tear off) vorige (or letzte) Weihnachten geschenkt bekommen.
4. Haben Sie alles bekommen?
5. Haben Sie alles?
6. In seinem Kalender sind kurze Geschichten und Gedichte.
7. Was verkauft der Hausierer auf (1) den Strassen?
8. Er hat den ganzen Tag (*Accusative of time*) nur sechs Kalender verkauft.
9. Er hat ihr die Wahrheit gesagt (2).
10. Er sagte ihr (3), sie soll(t)e es nicht tun.
11. "Komm her!" (or "Kommen Sie her!"), sagte er zu ihr (4).
12. Nur seine Frau war im Zimmer (or



AN ANNOUNCER'S CHRISTMAS: M. Bochenski, the senior Warsaw announcer, with presents received from listeners

in der Stube). 13. Die alte Frau fror. Or Der alten Frau war kalt. 14. Er ging nach mir aus dem Zimmer. Or Er verliess das Zimmer nach mir. 15. Schliesslich (or Endlich) ging er auf (1) die Strasse hinaus. 16. Nur aus Mitleid haben wir etwas von ihm gekauft. 17. Wir sahen ihren Mann über die Strasse gehen. 18. Sie kann ihre Kinder nicht verlassen (or allein lassen). 19. Sind Sie böse auf ihn? 20. Bitte, holen Sie zwei Flaschen Bier, eine für sich und eine für mich; but zwei Glas Bier, eins für sich und eins für mich! 21. Hat die Nachricht ihn rechtzeitig erreicht (or Hat ihn die Nachricht... *The pronoun object may precede the noun subject*)? 22. Ich soll zum Bäcker gehen. 23. Was wünschen Sie? 24. Haben Sie alles mitgebracht? Wahrscheinlich. (1) Müllers wohnen in der Potsdamer Strasse und ihr Haus steht (or liegt) in der Potsdamer Strasse; but die Fussgänger (pedestrians) und Fahrzeuge (vehicles) sind auf der Strasse. 2. sagen plus the simple Dative: with a noun object. 3. sagen plus the simple Dative: with indirect speech. 4. sagen zu: with direct speech, i.e., when the exact words are quoted.

Fröhliche Weihnachten!

MAX KROEMER.

## ITALIAN

### Esercizi linguistici italiani

IL volgare, come dicevamo, diede buoni frutti anche nel secolo decimoquinto, ma, nella prima metà del secolo, fu rigido e faticoso come non era stato nel decimoquarto, specialmente nella prosa, perchè gli elementi dialettali italiani, che eran venuti fondendosi nella grande opera dei tre sommi Trecentisti, riapparvero a dissesare per qualche decennio il lavoro di unificazione compiuto da questi. Per riavere un rigoglio diverso lavoro artistico in italiano bisogna aspettare la seconda metà del secolo, anzi, la fine del secolo.

Tuttavia non è giusto dimenticare che, anche nella prima metà, si seguì a studiare Dante e—sia pure infelicemente—a imitarlo. Per la lirica, la raffinatezza del Petrarca parve il vero modello, e da allora in poi si ebbe un numero crescente di imitatori un po' freddi ma abili. Rammentiamo, per esempio, Giusto de' Conti, uno dei noti "petrarchisti" della prima metà del secolo decimoquinto.

Una forma d'arte che prese singolare sviluppo allora e che, quasi a contrasto con la lirica, ebbe indirizzo spontaneo e popolare, fu il "mistero"—o, come si dovrebbe meglio dire, la "sacra rappresentazione"—corrispondente al mistero delle altre letterature europee contemporanee. Ma fu una forma troppo primitiva—anche se lo stesso Lorenzo de' Medici (*pronounce medici*) fu, con tanti altri, autore di sacre rappresentazioni—e troppo slegata; soprattutto, non poté svilupparsi in vero dramma perchè fu sempre con-

tenuta entro i limiti sterili della così detta letteratura popolare, e quindi ai margini, per dir così, della letteratura propriamente detta. Provatevi infatti a leggerne qualcuna, per esempio di Feo Belcari, e ci troverete dei versi spontanei, talvolta freschi ed efficaci, quà e là, ma nessuna coesione drammatica. Insomma la sacra rappresentazione non ha importanza che come embrione del dramma. Ma ci fu teatro nel rinascimento italiano? A questa domanda risponderemo in seguito. Per ora rammentiamo un tentativo drammatico di nuovo genere, derivato dalla sacra rappresentazione—l'*Orfeo* del Poliziano, di soggetto, come ognuno vede, mitologico. Ma anche questo tentativo del poeta ancora giovanissimo ha gli stessi difetti delle sacre rappresentazioni, pur non mancando di felici passi lirici. Né vi è novità d'ispirazione, perchè il soggetto e lo svolgimento sono completamente tratti dai classici.

Ma con l'*Orfeo* siamo già nel 1471, cioè nell'età aurea di Firenze medicea. Ora non più gli umanisti disdegnano lo scrivere in volgare: c'è già un pieno equilibrio nella loro vita culturale. Mirabile esempio di questo equilibrio era stato Leon Battista Alberti (morto nel 1472), umanista, buono scrittore di prosa italiana, trattatista d'arte, matematico, fisico, architetto. Il Poliziano non fu, naturalmente, così vario nella competenza; ma, dal punto di vista letterario, egli ci mostra la capacità di poetare in latino e in greco, di essere il primo filologo del suo tempo e, di produrre della poesia fresca e agile in italiano. Egli è, infatti, uno dei maggiori poeti del secolo decimoquinto, non ostante il tono epicureo della sua ispirazione poetica. La sua *Giostra* sarà fin che si vuole, nell'invenzione, ispirata da reminiscenze di poeti latini e greci, ma resta sempre un nobile lavoro d'arte nella sua eleganza e leggerezza di tocco, nella vivacità del colore e della potenza descrittiva. A lui però non chiederemo profondità d'ispirazione lirica. Considerabile profondità, invece, abbiamo nel suo famoso protettore e amico, Lorenzo de' Medici, detto—come tanti altri Signori del suo tempo—il Magnifico. Si badi che questa opinione non è condivisa da tutti i critici, e che l'accusa di artificio retorico viene spesso lanciata contro di lui. Ma sta il fatto che la poesia di Lorenzo ha grande varietà d'ispirazione, e troppo spesso ha accenti di sincerità perchè se ne possano misconoscere i grandi meriti. Questa opinione ho espressa anche nel mio *Outline of Italian Civilization*, e, più ci ripenso, più ne sono convinto.

Negli anni memorabili del Magnifico Lorenzo, che si chiusero immaturamente nel 1492, altri poeti sorsero intorno a lui. Ne parleremo la prossima volta, al 18 Gennaio.

Per ora, buon Natale ai miei gentili lettori.

D. PETTOELLO.

## Esperanto Transmissions

Sunday—Lille PTT Nord, 9.30 a.m., Course. Informoj. Lyons-la-Doua, 9.45 a.m., Course. Leningrad, 4 p.m., "Pri la Esperanta Movado kaj arta kulturo." Wednesday—Minsk, 9.05 p.m., Parolado. Vienna, 9.20 p.m., D-ro E. Pfeffer, "Kulturaj kaj sportaj rilatoj inter Aŭstrujo kaj Bulgario." Leningrad, 9.20 p.m., Informaro. Thursday—Paris PTT and Grenobles, 5.30 p.m., Course, Parolado. Friday—Brno and relays, 6.15 p.m., Course. Nice-Juan-les-Pins, 7.30 p.m.; Lisbon, 8 p.m., Course. Minsk, 9.5 p.m., Parolado. Saturday—Lyons-la-Doua, 8.10 p.m., M. Borel: "Biografio pri franca eminto." Leningrad, 9.20 p.m., Aktualajoj.

## The Men of the Trees

We have received from "The Men of the Trees" (London: 26, Collingham Place, S.W.5, 5s. net) their Calendar for 1935. It is illustrated by a series of really beautiful reproductions (copyright) of tree photographs. The calendar is dedicated to "all tree lovers and to those who would keep their country beautiful by tree planting."

## Listeners' Verdicts

### A French Farce

THE promise of an Anglo-French romance held me to Poste Parisien on December 13, when they radiated Juliette Milo's comedy, *On Demande une Dactylo*. For my part this item, and not the music, proved easily the most interesting of the week. Mme. Milo's play is typically Parisian in its racy gaiety, and is full of delightful, subtle humour. It is of particular interest to English-speaking listeners because of the castle scenes in Wales and because one of the main characters is "M-e-e-s-s" Minny Plott, a tall and thin English girl whose French was utterly deplorable, but very funny. The hero of the play was Maurice Fromentin, a portly young Frenchman whose business of renovating and reselling chateaux led him to Wales, where he directed work on an old castle, and where, needing an interpreter, he met Minny Plott. It rained so much in Wales that Maurice allowed himself the distraction of flirting with Minny, who later pursued Maurice to Paris, and insisted, with the aid of a "brother," on marriage or a substantial payment. By this time, however, Maurice Fromentin had employed a pretty stenographer, Nicolette, who promised to discover any irregularities in Fromentin's business. By using her feminine charms, she soon discovered that "William Plott" was merely an adventurer and that Charles, his clerk, was in the secret employ of another business man. It was rather too much for Maurice, however, to find Nicolette in the arms first of Charles, then of Plott, and then of the business man, all in the same afternoon, and in a fury of jealousy, he dismissed her; but a reconciliation between Maurice and Nicolette provided a fitting ending.

L. A. Y.

### A Colonne Concert

I tuned in to Poste Parisien on Tuesday evening, December 11, for the Colonne Concert, and my hopes of a musical treat were more than fulfilled by the transmission. The acoustic properties of the hall seemed to be well suited for broadcasting, and the superb tone of the orchestra was much enhanced thereby. The *Freischütz* Overture was especially remarkable for the clarity of the solo passages, and the technique of the horn player was a pure delight. The performance of the "Unfinished" Symphony was the best I had heard for a considerable time: the performance was intensely vital from beginning to end and held my absorbed interest throughout. The forte passages in the first movement were dramatically calculated in relation to the softer parts, yet without ever becoming melodramatic. The moving appeal of the *Andante* was more than usually powerful, and never sank to the level of the merely sentimental.

P. G. W.

## Next Week's Station

The station to which we invite readers to listen during the week December 23 to 29 is HUIZEN. A description of the programme item broadcast by this station which the individual listener considers to be the most interesting should reach us not later than the first post on Monday morning, December 31. The best of the descriptions received (which should be limited to 250 words each) will be published, and £1 is. will be paid for each such contribution.

## I.D.A. Special Programmes

Listeners to the special programmes broadcast under the auspices of the International Dixer's Alliance are asked to note that the time of the transmission from Sottens (443.1 metres) on December 27 will be 6.30 a.m., and not 6.30 p.m., as printed in a recent issue.

# STATIONS IN ORDER OF FREQUENCIES AND WAVELENGTHS

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

kc/s	m.	kW	Station	Dial Readings	kc/s	m.	kW	Station	Dial Readings
<i>Band No. 1. 150-300 kc/s</i>									
155	1935	7	Kaunas (Lithuania)	.....	814	368.6	50	Milan I (Italy)	.....
		7	Huizen (Holland)	.....	823	364.5	12	Bucharest (Romania)	.....
160	1875	50	Kootwijk (Holland) ( <i>Transmits Huizen prog. after 3.40 p.m.</i> )	.....	832	360.6	100	Moscow IV (U.S.S.R.)	.....
		20	Brasov (Romania)	.....	841	356.7	100	Berlin (Germany)	.....
166	1807	40	Lahti (Finland)	.....			1	Bergen (Norway)	.....
174	1724	500	Moscow I (U.S.S.R.)	.....	850	352.9	0.35	Aalesund (Norway)	.....
182	1648	75	Radio-Paris (France)	.....			0.5	Bodö (Norway)	.....
187.5	1600	5	Istanbul (Turkey)	.....			0.7	Porsgrund (Norway)	.....
191	1571	60	Deutschlandsender (Germany)	.....	859	349.2	1	Sofia (Bulgaria)	.....
200	1500	150	Droitwich (Gt. Britain)	.....			1.5	Valencia (Spain)	.....
		35	Irkoutsik (U.S.S.R.)	.....	868	345.6	10	Simferopol (U.S.S.R.)	.....
208	1442	35	Minsk (U.S.S.R.)	.....	877	342.1	15	Strasbourg (France)	.....
		16	Reykjavik (Iceland)	.....	886	338.6	16	Poznań (Poland)	.....
215	1395	13	Eiffel Tower (Paris) (France)	.....			50	London Regional (Gt. Britain)	.....
216	1389	30	Motala (Sweden)	.....	895	335.2	7	Graz (Austria)	.....
217.5	1379	100	Novosibirsk (U.S.S.R.)	.....			10	Helsinki (Finland)	.....
224	1339	120	Warsaw (Poland)	.....	904	331.9	0.5	Limoges (PTT) (France)	.....
230	1304	150	Luxembourg	.....			100	Hamburg (Germany)	.....
		7	Ankara (Turkey)	.....	913	328.6	10	Dnepropetrovsk (U.S.S.R.)	.....
232	1293	20	Kharkov (U.S.S.R.)	.....			60	Toulouse (Radio - Toulouse) (France)	.....
238	1261	60	Kalundborg (Denmark)	.....	922	325.4	32	Brno (Czechoslovakia)	.....
240	1250	0.5	Vienna Experimental (Austria)	.....	932	321.9	15	Brussels II (Belgium)	.....
245	1224	100	Leningrad (U.S.S.R.)	.....	941	318.8	12	Algiers (North Africa)	.....
256.4	1170	25	Tashkent U.S.S.R.	.....			10	Göteborg (Sweden)	.....
260	1154	60	Oslo (Norway)	.....	950	315.8	17	Breslau (Germany)	.....
271	1107	100	Moscow II (U.S.S.R.)	.....	959	312.8	100	Poste Parisien (France)	.....
280	1071.4	35	Tiflis (U.S.S.R.)	.....	968	309.9	10	Odessa (U.S.S.R.)	.....
		10	Finnmark (Norway)	.....	977	307.1	2	Ukhta (U.S.S.R.)	.....
355	845	20	Rostov-on-Don (U.S.S.R.)	.....	986	304.3	50	W. Regional (Gt. Britain)	.....
375	800	50	Sverdlovsk (U.S.S.R.)	.....			10	Genoa (Italy)	.....
392	765	0.6	Boden (Sweden)	.....	995	301.5	2	Cracow (Poland)	.....
401	748	1.3	Geneva (Switzerland)	.....	1004	298.8	20	Hilversum (Holland)	.....
		100	Moscow III (U.S.S.R.)	.....			13.5	Bratislava (Czechoslovakia)	.....
413.5	726	0.6	Östersund (Sweden)	.....	1013	296.2	50	North National (Gt. Britain)	.....
		10	Voroneje (U.S.S.R.)	.....			5	Tchernigov (U.S.S.R.)	.....
431	696	2	Oulu (Uleaborg) (Finland)	.....	1022	293.5	3	Barcelona EAJ15 (Spain)	.....
436	688	10	Ufa (U.S.S.R.)	.....			0.7	Oviedo (Spain)	.....
			<i>Band No. 2. 300-500 kc/s</i>		1031	291	60	Heilsberg (Königsberg Germany)	.....
517	580	..	Tartu (Estonia)	.....			5	Paredo (Portugal)	.....
519	578	0.7	Hamar (Norway)	.....	1040	288.5	10	Leningrad II (U.S.S.R.)	.....
		0.5	Innsbruck (Austria)	.....			2.5	Rennes (Radio PTT Ouest) (France) ( <i>Testing on 40 kW</i> )	.....
		5	Ljubljana (Yugoslavia)	.....	1050	285.7	50	Scottish National (Gt. Britain)	.....
527	569.3	13	Viipuri (Finland)	.....	1059	283.3	20	Bari (Italy)	.....
		0.5	Finnish Common Wave	.....	1068	280.9	4	Tiraspol (U.S.S.R.)	.....
536	559.7	1	Bolzano (Italy)	.....	1077	278.6	12	Bordeaux Lafayette (France)	.....
		16	Wilno (Poland)	.....	1086	276.2	2	Falun (Sweden)	.....
546	549.5	120	Budapest (Hungary)	.....			0.7	Zagreb (Yugoslavia)	.....
556	539.6	100	Beromünster (Switzerland)	.....	1095	274	7	Madrid EAJ7 (Spain)	.....
		60	Athlone (Irish Free State)	.....			10	Vinnitsa (U.S.S.R.)	.....
565	531	4	Palermo (Italy)	.....	1104	271.7	1.5	Naples (Italy)	.....
574	522.6	100	Stuttgart (Germany)	.....			50	Madona (Latvia)	.....
		15	Riga (Latvia)	.....	1113	269.5	11.2	Moravská-Ostrava (Czechoslovakia)	.....
583	514.6	15	Grenoble (France)	.....			1	Belfast (N. Ireland)	.....
592	506.8	100	Vienna (Austria)	.....	1122	267.4	6.2	Nyiregyháza (Hungary)	.....
		6.5	Rabat (Morocco)	.....			0.25	Alexandria (Egypt)	.....
601	499.2	10	Sundsvall (Sweden)	.....	1131	265.3	10	Hörby (Sweden)	.....
609	492.6	20	Florence (Italy)	.....	1140	263.2	7	Turin (Italy)	.....
620	483.9	15	Brussels I (Belgium)	.....			50	London National (Gt. Britain)	.....
		20	Cairo (Egypt)	.....	1149	261.1	50	West National (Gt. Britain)	.....
629	476.9	20	Trøndelag (Norway)	.....	1158	259.1	2.6	Kosice (Czechoslovakia)	.....
638	470.2	120	Prague I (Czechoslovakia)	.....	1167	257.1	15	Monte Ceneri (Switzerland)	.....
		15	Lyons (La Doua) (France)	.....	1176	255.1	10	Copenhagen (Denmark)	.....
648	463	10	Petrozavodsk (U.S.S.R.)	.....	1185	253.2	10	Kharkov II (U.S.S.R.)	.....
		100	Cologne (Germany)	.....			1.5	Cassel (Germany)	.....
658	455.9	50	North Regional (Gt. Britain)	.....	1195	251	17	Frankfurt (Germany)	.....
668	449.1	25	Sottens (Switzerland)	.....			5	Freiburg-im-Breisgau (Germany)	.....
677	443.1	2.5	Belgrade (Yugoslavia)	.....			1.5	Kaiserslautern (Germany)	.....
686	437.3	7	Paris (PTT) (France)	.....	1204	249.2	2	Trier (Germany)	.....
695	431.7	55	Stockholm (Sweden)	.....			5	Prague II (Czechoslovakia)	.....
704	426.1	50	Rome (Italy)	.....	1213	247.3	0.1	Tromsø (Norway)	.....
713	420.8	36	Kiev (U.S.S.R.)	.....	1222	245.5	5	Lille (Radio PTT Nord) (France)	.....
722	415.5	3	Madrid (Radio-España) (Spain)	.....	1231	243.7	10	Trieste (Italy)	.....
		1.5	Seville (Spain)	.....			5	Gleititz (Germany)	.....
731	410.4	20	Tallinn (Estonia)	.....	1240	241.9	1	Cork (I.F.S.)	.....
		100	Munich (Germany)	.....			2	Swedish Relay Stations	.....
740	405.4	1.6	Marseilles (PTT) (France)	.....	1249	240.2	2	Juan-les-Pins (Radio Côte d'Azur) (France)	.....
749	400.5	0.5	Pori (Finland)	.....			10	Kuldiga (Latvia)	.....
758	395.8	12	Katowice (Poland)	.....	1258	238.5	1	Rome III (Italy)	.....
767	391.1	25	Midland Regional (Gt. Britain)	.....			3	San Sebastian (Spain)	.....
		10	Stalino (U.S.S.R.)	.....	1267	236.8	0.25	Augsburg (Germany)	.....
776	386.6	0.7	Toulouse (PTT) (France)	.....			2	Nürnberg (Germany)	.....
		0.7	Fredrikstad (Norway)	.....	1276	235.1	0.5	Christiansand (Norway)	.....
785	382.2	120	Leipzig (Germany)	.....			0.5	Stavanger (Norway)	.....
795	377.4	5	Barcelona EAJ1 (Spain)	.....	1285	233.5	1	Aberdeen (Gt. Britain)	.....
		16	Lwów (Poland)	.....			1.5	Dresden (Germany)	.....
804	373.1	50	Scottish Regional (Gt. Britain)	.....	1294	231.8	0.5	Linz (Austria)	.....
							0.5	Dornbirn (Austria)	.....

STATIONS IN ORDER OF FREQUENCIES AND WAVELENGTHS (Continued)

Table with columns: kc/s, m., kW, Station, Dial Readings, kc/s, m., kW, Station, Dial Readings. Lists various international radio stations and their frequencies/wavelengths.

DEVIATIONS

The following are actual deviations from the official frequencies as measured at the Tatsfield Checking Station during the past week.

Table showing frequency deviations for stations like Hamar (Norway), Ile de France (France), and Milan II (Italy).

For List of Short-Wave Stations see page 902.

LISTENERS' QUERY SERVICE

Which station was that?

Free Queries

Each query should be numbered and the questions on the coupon carefully answered. Letters must be addressed to the Editor, WORLD-RADIO, Broadcasting House, London, W.1.

The Alternative Postal Service

In addition to the free service of "Which Station Was That?" printed in these columns, replies to station identification 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."

Times of Reception

The identification of stations will be greatly facilitated if readers, in answering the first question in the Identification Coupon, will always add a.m. or p.m. to the hour of reception—e.g., 12.5 a.m. to indicate five minutes after the start of a new day.

WATTY (Middlesbrough): Yes, Warsaw. MARCONI (Davenport): This was XENT, Nuevo Laredo (Mexico), 267.7 m. HEFRAUNTY (Belvedere): Can trace the following call-signs only: PJZ, Curacao (Dutch West Indies), 16.7 m. (17,964 kc/s); LMQ, Torgilsbu (Norway), 35 m. (8,571 kc/s); OIV, Finnish call, but cannot trace. CURIOUS (Southsea): If you are sure of wavelength, CKAC, Montreal, on 410.7 m., but as you give such wide limits much more likely to be WLW, Cincinnati (Ohio), on 428.3 m. NEWS (Norwich): Cannot confirm, but believe Athlone; full details of programme were not available. CALLING AMERICA (North Shields): WPG, Atlantic City (N.J.); CBS network. BELATED REVELLER (Herringfield): Would suggest that you heard Lisbon (Barcarena); the word you misunderstood was possibly "Emissora" ("Radio-Emissora"). FELIX (Rossendale): We cannot trace a call KKN5TTT or KKN50, but U3D1 would be an amateur transmitter in U.S.S.R. J. D. H. B. (Uppingham): Apparently altered programme; Munich heard through Nürnberg. OVI-TOUR (Windsor): G5WW, London, N.2; G5LO, Oxford. PILLS (Manchester): (1) GGC, Mull of Cantyre Lighthouse, 1,008 m.; (2) EIB, Tory Island Lighthouse, 1,008 m. TRANS-ATLANTIQUE (Ilfracombe): (14) fourth harmonic of Poste Parisien; (1) the best time to listen for Australian and New Zealand amateurs is between 8 a.m. and noon; (2) American amateurs on 20-metre band from 5 to 8 p.m., 40-metre band from 9 p.m. to 1 a.m. and 75-metre band from 1 to 6 a.m. (all times given are G.M.T.); (3) addresses required are as follows: WTIC, Travellers' Broadcasting Association, 26, Grove Street, Hartford, Conn.; WLW, Crosley Radio Corporation, 1,329, Arlington Street, Cincinnati, Ohio; WEA, National Broadcasting Company, Inc., 30, Rockefeller Plaza, New York City. B. A. CANTAB (Dovercourt): Yes, "ghost" of Droitwich. ST. OLAF (Waddon): (2) GOS, Ongar, 32.35 m.; CUD, Alfridge-Lisbon, 43.38 m.; PDS, Kootwijk (Holland), 27.94 m.; WQR, New Brunswick (N.J.), 18.73 m.; can trace the following amateurs only: SPIFL, Lwów (Poland); ES3AA, unofficial; write: V. Suiguasaar, Hobo, t.4, Pernau, Estonia. RAT (Salisbury): HI7G, Santo Domingo (Dominican Republic). SPARKS (Oxon): (1) FZR, Saigon (Indo-China), 18.5 m. (16,220 kc/s), calling FYC, Beyrouth-Khalde (Syria); (2) regret, cannot trace call-sign. GRIFFO (Boothe): Yes, VUB, Bombay, received direct. MEDIUM WAYER (Winchester): (1) LR6, Hurlingham (Buenos Aires), 344.8 m.; (2) LR4, Radio-Splendid (Buenos Aires), 303 m.; (3) LS2, Radio-Prieto (Buenos Aires), 252.1 m. HOPEFUL (Devon): Details vague; would appear to be Moscow, 1,107 m. DALKEY (Dublin): (1) yes, Jeløy (Norway) is now testing on approximately 49 m.; (2) DAS, Ruegen Radio (Germany), 35.13, 53.24, 74.07 metres, and other higher channels; (2) do not know of any Moscow station on approximately 33 m. working simultaneously with RW59. WHO ARE THEY (Prestwich): (1) Heston Airport, 1,202 m. (249.5 kc/s), 300 watts; (2) G6AX and G6QA, Rochdale, Lancs; no list of police transmitters published; GTN, possibly Manchester; can trace the following call-signs: G2BK, Oldham, Lancs; G2KT, Rayleigh, Essex; G2OV, Rainham, Kent; G2PL, Cambridge; G2PO, Rossendale, Lancs; G5QC, Gidea Park, Romford; G5RL, St. Ives, Hunts; G5RX, Bacup, Lancs; G5VL, Porth, St. Colum

Minor, Cornwall; G5WB, Swanley, Kent; G5WW, London, N.2; G5XJ, Oldham, Lancs; G5XP, Rochdale, Lancs; G6DO, Birkenhead, Cheshire; G6FA, Blundellsands, Liverpool; G6GX, Oldham, Lancs; G6KV, Laindon, Essex; G6NF, West Norwood, S.E.27; G6NL, Liverpool; G6PA, Ospringe, Faversham, Kent; G6PB, Wolverhampton, Staffs; G6PL, Heckmondwike, Yorks; G6SA, Bedford Park, W.4; G6IF, Leigh-on-Sea, Essex; WIKJ, Lynn, Mass.; W2BRO, Livingston (N.J.); W2DDU, Floral Park (N.Y.); W2CC, Little Silver (N.J.); W3DDO, Hanover (Pa.); W3DQ, Edgemoor (Del.); W3LA, Silver Spring (Md.); W9GKU, Park Ridge (Ill.); F8HH, Villeneuve St. Georges (Seine et Oise, France); F8LA, Neuilly (Seine, France); F8LX, Paris; F8NE, Nice (France); F8NU, Orleans (France); F8RR, Les Pieux (Manche, France); F8ZP, Aulnay-Sous-Bois (Seine et Oise, France); ON4AP, Peronnes-lez-Binche (Belgium); ON4MS, Malines (Belgium); ON4PA, La Pinte-lez-Gand (Belgium); ON4BQ, Bracquegnies (Belgium); PAOAU, Rotterdam; PAOZK, Geldrop (Holland); PAOSLB, Eindhoven (Holland); E16F, Dublin; VE1BV, Steviacke (Nova Scotia); VE2BX, Verdun (Quebec Province); VE2CA, St. Lambert (Quebec Province). ROSLYN (W.9): If Spanish, the only three stations which would tally are LR2, Florida (Buenos Aires), 329.7 m.; LR6, Hurlingham (Buenos Aires), 344.8 m.; and LS4, Ciudadela (Buenos Aires), 447.8 m., which belong to the Radio-Cadena, Argentine chain. QUERIST (Illford): (1) PVR2, Porto Esperanca (Brazil), 18.59, 33.22, and 88.11 m.; WCB, Hicksville (N.Y.), 19.26 m.; GNI, Niton Gonio (I.O.W.), 647 m.; FFB, Boulogne (France), 726.4 m.; REID, Koustanai (U.S.S.R.), 59.64 m.; XDO, Chapultepec (Mexico), 30.99 m.; WIDZE, Mattapan, Boston (Mass.); W1HG, Gorham (New Hampshire); (2) British ships: GCMK, "New Lambton"; GKRN, "Albertross"; GLWC, "Durham Castle"; GNLZ, "Corminster"; GTFR, "Gryfevale"; and apparently GNTN (not GNER), "Tadorna"; French ships: FORI, "Georges Levedier"; FNQK, "Washington"; FOAR, "Commissaire Ramel"; German ships: DODM, "Ilmar"; DDTI, "Constantia"; DGDC, "Asien"; Norwegian ships: LCAD, "Lis"; LDNO, "Ruth"; Dutch ship: PFQN, "Maasburg"; FIVE-O-NINE (Burnham-on-Sea): W1XAL, Boston (Mass.), relaying WEEI programme on 49.67 m.; also taken by W3XAL (49.18 m.). WOTTWOZZIT (Birmingham): YVR, Maracay (Venezuela), 32.79 m. SUNNYDENE (Rothley): Apparently second harmonic of Milan (1), 184.3 m.; German station heard possibly Ruegen Radio, on 182 m. A.L.T. (Timperley): (2) yes, Leningrad. BLITZEN (Plymouth): (1) IZRO, Rome, 30.67 m.; (2) W1XAZ, Boston (Mass.), 31.35 m., NBC station; (3) cannot trace call-sign, which appears to be mutilated. TEAKSEE (Douglas): (1) Kuldiga (Latvia) relaying Riga; (2) Trieste (North Italian programme). NORTHERN (Inverness): British ships: GWNW, "Norno"; GTPM, "Athebeach"; S.G.D.P. (Hatherton): This was the fourth harmonic of Radio-Normandie (Fécamp); programme included sponsored concerts destined to Portsmouth. LONGING-TO-KNOW (Manchester): Surely wavelength not quite correct; all details would point to Barcarena (Lisbon), on 476.9 m. SLASLAB (Newport): Regret, details are too vague to trace; if received in the afternoon would not be from Ecuador. NEWTONIAN (St. Helens): VUB, Bombay, 31.36 m. D.X.101 (S.E.1): Write Radio Society of Great Britain, 53, Victoria Street, London, S.W.1, enclosing stamped addressed envelope. RECORDER (Plumstead): G6KV, Laindon, Essex; G6GD, Mitcham, Surrey; G2JG, Leyton, London; G2JO, Harrogate, Yorks; G2RR, Seven Kings, Essex. T.N.O.U.NOT (Hayward's Heath): (1) VLK, Sydney, 28.5 m., testing with Great Britain. BRS 1330 (Somerset): Regret we are unable to trace.

# LAST WEEK'S LISTENING

## AT HOME

ANYONE who had not used a wireless set during the week now reviewed, but had carefully studied the weather charts and weather reports, would probably have said, without hesitation, "It must have been a poor week with bad atmospherics on most days." It was a week of abnormally high temperature for the time of year; leaden skies and downpours of rain of the kind that we associate with thunderstorms. There were, in fact, thunderstorms in some parts of the country.

For all that, atmospherics were not troublesome, and generally speaking, long-distance listening conditions were pretty good, except that heterodynes and jamming were rather more in evidence than they had been.

On the long waves the Deutschlandsender was jammed on the Saturday, Motala on the Wednesday, and Warsaw suffered from strong interference on every evening but the Saturday. Luxembourg had a bad time on the Wednesday and Thursday, and was accompanied by a heterodyne on the Saturday. There was less interference on the medium waves—I write, of course, only of important stations, for owing to the confusion below about 240 metres the majority of the smaller ones are now more or less permanently jammed. Breslau had a heterodyne whistle on the Monday, and on the same evening Bordeaux was virtually jammed.

### Reception of Rennes

The new transmitter at Rennes is now often to be heard testing, and on the Saturday night it was apparently in action during the evening programme, for reception at full loudspeaker strength with excellent quality was obtained. Rennes was good, though not quite so good, on several other evenings.

That surprising station, Brno, has again been logged during the week. As I have mentioned before, one either hears this station with a roar, or does not receive it at all. It is some weeks now since I have come across it when exploring the medium waveband, but on the Monday it was coming in at great strength and was only slightly less powerful on the following evening.

I hear little of Madrid nowadays, though some people tell me that they receive this station fairly well. It was coming in strongly on the Saturday night, but was, unfortunately, accompanied by a very bad heterodyne.

Nürnberg, which until recently was usually fairly reliable, has had a bad week, its strength for some reason being very much below normal except on the Monday evening. There were signs of a return to form on the Saturday. Paris PTT and Radio-Toulouse are both variable transmissions just now. Paris PTT was best on the Thursday and Saturday, and Toulouse on the Saturday.

### Variations from Form

Hilversum is not at all up to the mark. The Tuesday was the only evening on which it gave me full loudspeaker volume; on other evenings it was receivable, but was distinctly on the weak side. Other stations which have shown variations are Budapest (not too good on the Saturday), Beromünster (its "off" day was the Tuesday), Lyons la Doua and Sottens (both weakish on the Monday) Milan (below form on the Thursday), Berlin (not as good as usual on the Monday and Wednesday), Brussels No. 2 (poorish on the Monday), and Frankfurt (its least satisfactory evenings were the Wednesday and Thursday).

Nevertheless, there has been a fine choice of foreign programmes on every day of the week. Athlone, Stuttgart, Vienna, Florence, Brussels No. 1, Prague, and Cologne have been reliable throughout, and I have given full marks to Stockholm, Rome, and Munich. Leipzig, I see on referring to my log, had a slight heterodyne on the Monday, but was otherwise good.

"THE SEARCHER."

## INTERFERENCE

THE unpleasant heterodyne caused to the North Regional station by Samara, a Russian station of 10 kW, ceased around December 6. Samara has left 668 kc/s, and has since been found on 713 kc/s, the frequency of Rome I. Despite Rome's strong signal, the interference is often powerful and unpleasant.

In a previous report mention was made of the interferences caused to European stations, especially French, by Russian stations sharing their frequencies. These, during the week under review, have been particularly in evidence on Lyons PTT, Strasbourg PTT, and Rennes PTT. On Lyons, Petrozavodsk (10 kW), was often audible, producing a hum of about 100 cycles; Leningrad II (10 kW) is responsible for a 150-cycle note on Rennes; and Simferopol (10 kW) is the cause of a 200-cycle note (sometimes higher) on Strasbourg. This interference is often very loud.

The conditions affecting Königsberg have also been aggravated. This station's frequency, 1,031 kc/s, is shared with the station of the Radio-Club Portugues. Since December 11 the latter has moved to about 1,030.7 kc/s, thus producing a 300-cycle note on Heilsberg.

A new station has recently made its appearance in the ether: Kuldiga (Latvia), working on a frequency of 1,258 kc/s, with a power of 10 kW (which will ultimately be raised to 50 kW). The 1,258 kc/s-wave is also used by Rome III, San Sebastian, and Orebrö (a Swedish relay). The two last-named stations are unsteady. Kuldiga is the most powerful of these stations, but is seriously heterodyned by them.

Radio-Vitus (l'Île de France) is now on 1,355 kc/s, and, consequently, is much more powerfully received; it is badly jamming with Milan II and the Norwegian Common Wave working round 1,357 kc/s. L. B.

### STATION IDENTIFICATION PANEL

REICHSSENDER

KÖNIGSBERG (HEILSBERG) (GERMANY)

FREQUENCY: 1,031 kc/s.

WAVELENGTH: 291 m.

POWER (COPENHAGEN): 60 kW.

DISTANCE AND BEARING FROM LONDON: 882 miles; 68°.

CALL: "Heir ist der Reichssender Königsberg und seine Nebensender!"

INTERVAL SIGNAL: A few bars from the Masurian folk-song "Wild flutet der Sec."

Man and woman announcers.

The announcement "Hier ist die Reichssendeleitung" precedes all German broadcasts when an S.B. political programme is being transmitted.

Closes down with one verse of the "Horst Wessel Lied" and one verse of the "Deutschlandlied."

RELAY STATIONS: Königsberg 1,348 kc/s, 222.6 m., 0.5 kW; Danzig 1,303 kc/s, 230.2 m., 0.5 kW.

## EUROPE'S PROGRAMMES

THE outstanding broadcast of the period under review was undoubtedly that given by Brussels No. 1 on December 11, in the shape of a relay from the Palace of Beaux-Arts as a tribute to King Leopold the Third. The musical programme was a lengthy one; the principal features were a performance of the Hymn and Toccato by Jongen with the composer at the organ, and De Greef's rendering of the solo part in his own Pianoforte Concerto. In the intervals between items a commentator described the amazing scene inside the building at which, it appeared, the leaders of Belgian society had gathered to do homage to their king.

### Mountain Broadcast

Beromünster recently installed a microphone (in fact, several) in a village some 5,000 feet above sea level in order to broadcast a sequence entitled "Leysin, the Village of the Sick," a relay which was extraordinarily interesting to me because I spent some ten years in this village and knew many of the good Swiss folk included in the programme.

The sequence depicted the arrival and subsequent adventures of an invalid from Düsseldorf who had come to this astonishing little Alpine township which, with its population of about 6,000 people of all nationalities, is connected with and devoted entirely to the cure of sickness. It was amusing to hear, during the station arrival scene, an English voice shout, "Hullo, Mary," and a Swiss gentleman speaking French in the "manière Anglaise," that is to say, with the accent of the proverbial "Vache Espagnol," or "Basque Espagnol" as the purists put it. A rather pathetic touch was added to the broadcast by the singing, in many languages, of crippled children.

The German stations devote much time to the entertainment of their juvenile audiences when the Christmas season draws near. A few days ago, for example, Berlin broadcast a programme of old Nursery Rhymes with music, and a short while later Cologne also gave a recital of a similar nature. This latter included a quaint song entitled "Gickel, Gackel, Gänschen," and the most famous of all German nursery rhymes, which starts with, "Hop, Hop, Hop," and describes the idiosyncrasies of a little horse.

### Symphonic Coincidences

It is seldom that one hears two symphonies by the same composer during the same concert, but on December 4, Vienna radiated a programme which included Beethoven's Third Symphony, the *Eroica*, and also the same composer's Eighth as played by the Vienna Philharmonic Orchestra under Weingartner.

And on December 11, at 7 p.m., Frankfurt gave a performance of Tchaikovsky's Fifth Symphony, an item which was repeated at ten o'clock from Huizen, so that one had the opportunity of comparing the Dutch and German versions.

Finally, another odd listening coincidence. On Sunday, December 2, while reading Galsworthy's *The Silver Spoon*; I came to the sentence (on page 271): "If only she were the size of Alice in 'Wonderland'" and at that precise moment a voice from Poste Parisien suddenly announced: "Vous venez d'entendre: 'Alice in Wonderland.'" This strange repetition of a name by no means common came as quite a shock, but I have no doubt readers have experienced similar occurrences.

"YODELLER."



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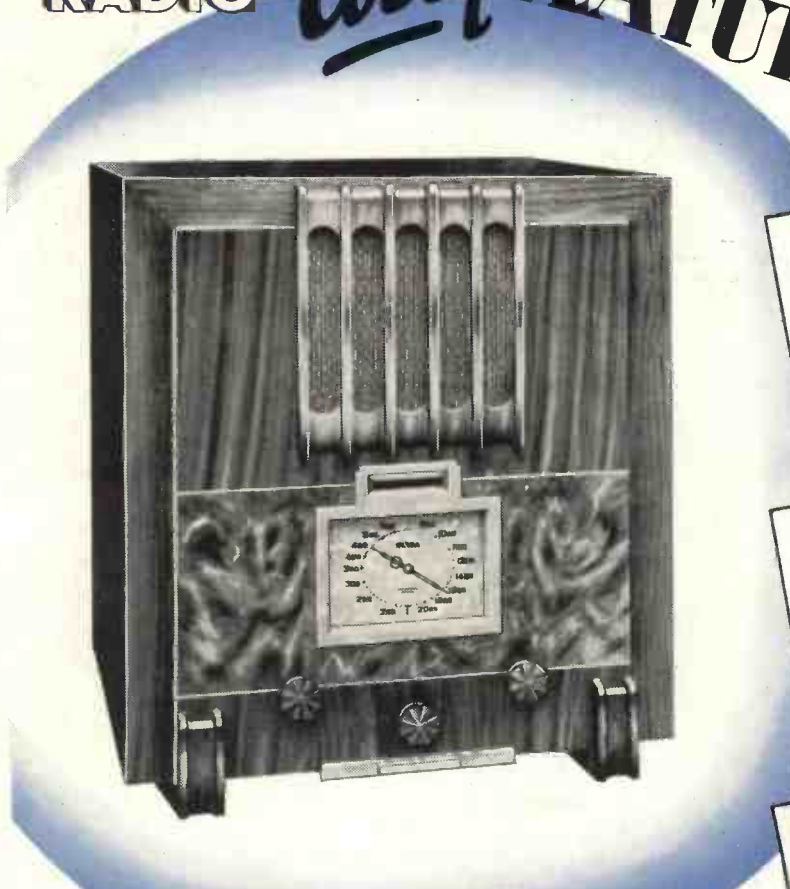
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