

ALL ABOUT "THE ROOSTERS."



THE OFFICIAL ORGAN OF THE B. B. C.

Vol. 6. No. 73.

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

EVERY FRIDAY.

Two Pence.

OFFICIAL PROGRAMMES
OF
THE BRITISH BROADCASTING COMPANY.

For the week commencing SUNDAY, February 15th.

MAIN STATIONS.

LONDON, CARDIFF, ABERDEEN, GLASGOW, BIRMINGHAM, MANCHESTER, BOURNEMOUTH, NEWCASTLE, BELFAST

HIGH-POWER STATION. (Chelmsford.)

RELAY STATIONS.

SHEFFIELD, PLYMOUTH, EDINBURGH, LIVERPOOL, LEEDS — BRADFORD, HULL, NOTTINGHAM, STOKE-ON-TRENT, DUNDEE, SWANSEA

SPECIAL CONTENTS:

THE GIFTED AMATEUR. By Will Owen.

THE TRAGEDY OF SCHUMANN. By R. D. S. McMillan.

HOW WE GET OUR CRYSTALS.

OFFICIAL NEWS AND VIEWS.

LISTENERS' LETTERS.

CONTINENTAL BROADCASTING.

Solving the Ether's Secrets.

By Sir OLIVER LODGE.

[This week we publish the second of the seven lectures on "Ether and Reality" which Sir Oliver Lodge is broadcasting from London.]

IT is commonly said that we have no sense organ for the appreciation of the ether. Truly, we have not any means of apprehending it directly; but we are very much accustomed to experience the phenomena which go on in it, or, in other words, to apprehend its modifications or moods.

It might be said that we have no sense directly to appreciate the air we breathe, and I suppose children have to learn that an atmosphere really exists round the earth. We can, however, appreciate its moods or modifications, as when there is a wind; or, if we remove some air from a vessel, making a partial vacuum, having closed the orifice with our hand, we can feel the atmospheric pressure, which is very great, though so uniform that we usually ignore it, and it had to be discovered by Galileo, Torricelli and Pascal. Apart from experiment, however, we can appreciate the vibrations of the air, for they are what we call noise, or sound, or music. But, of course, children of many ages could hear music without knowing that the atmosphere had anything to do with it.

Probably a wind is the most direct method of apprehending the air. Many attempts have been made to detect a wind in the ether: the earth is rushing through it at a tremendous pace—nineteen miles a second, or more—and, therefore, relatively, it must be streaming past us; but we can feel nothing of it; and, what is more, our most delicate instruments, specially designed to that end, can exhibit or detect nothing. Consequently, it has been possible to doubt the existence of such a medium.

Again, we have no means of making a vacuum in the ether and feeling its pressure: we have reason to think that that pressure is enormous.

The air pressure is a ton to the square foot: an ordinary barometer demonstrates this. But there is no instrument for measuring the pressure of the ether, which is probably millions of times greater. No vacuum is possible in ether; its pressure is altogether too uniform for direct apprehension. A deep-sea fish has probably no means of apprehending the existence of water, it is too uniformly immersed in it; and that is our condition in regard to the ether.

But we can feel its vibrations. Hold your hand in front of a blazing fire. It is not hot air that we feel; the air remains cool: dry air is not heated by radiation. What we feel is due to ether vibrations: they excite the nerves of the skin and give us the tingling sensation which we call heat or temperature.

Again, if we sit in the sunshine we can realize, if we attend, that we feel all round us a quiver of the ether: it may actually bronze our skins, and on the top of a mountain may raise blisters.

All these skin sensations are directly due to the ether and its vibrations. The vibrations originated in the sun, and have travelled across ninety-two million miles of empty space, taking eight minutes on the journey before they reach us. They achieve many results on arrival. Photographic chemicals are blackened by the vibrations. Every green leaf elaborates crude sap by their aid, and turns it into feeding material or vegetable tissue.

All vegetation grows at the expense of the ether tremors in which it is immersed: plants extract energy from the ether and store it in their substance: store it, it may be, for hundreds or thousands of years; so that when you make a wood or a coal fire, you liberate the stored or dormant energy, and the ether gets it back again.

Every part of the skin is sensitive to the

(Continued overleaf.)

Solving the Ether's Secrets.

(Continued from the previous page.)

ether quiver; but a particular region is localized in nearly all animals so as to be especially sensitive, and is called an "eye." Yet, "seeing," though it tells us about objects, tells us nothing about a medium and its waves, nothing about the machinery and vibrations by means of which we see.

It is quite possible to live amongst such vibrations and to know nothing about them: most people take the phenomenon for granted and do not analyse the cause. Only a few of the human race began to detect what was happening, and those few lived in the beginning of the nineteenth century. Late in time the knowledge came. After that, it was either ignorance or else some opposition theory which enabled people to ignore or deny the ether. And when, later on, we began to make experiments in electricity and magnetism, the ignorance of the ether was still more difficult. We are using it now in radio telegraphy; but, before that, we used it to drive our street cars and machinery.

Two Things Necessary.

An immense amount is known about waves, and the mere fact that a medium is able to transmit waves tells us something about its properties. A wave is always the result of an oscillation or vibration; and for an oscillation to be possible, two things are necessary; those two things are the power of restoration, recovery, recoil, when released, and the power of over-shooting the mark—the power of continuing to move without propulsion and even against an opposition force.

The power of recoil is called "elasticity"; the power of moving against opposition is called momentum or impetus, or inertia or density. A bent or coiled-up spring possesses one: it can recoil quickly and drive a pellet, or it can recoil slowly and drive a watch, all day, by its elasticity. Any kind of a load or mass possesses the other property—the power of continuing to move even against obstacles: a railway truck, once set going, can run up a slope for a time by its own momentum. So can water—it can be propelled against gravity—as in a fountain, or the tides. Our own bodies rise against gravity when we jump. A pendulum swings past its lowest point and rises on the other side: it overshoots the mark by its inertia.

A Simple Experiment.

The two properties, elasticity and inertia in combination, may be most easily illustrated by a piece of elastic, or a spiral spring, held at the top by a hand or a fixed support, and loaded at the bottom by a weight. Imagine you are holding up a weight by a piece of elastic. When everything is quiet, the weight is in a position of equilibrium; but if the weight is either pulled down or raised up a little and let go, it dances up and down. Follow this out, and you will perceive that it recoils or recovers its old position and then overshoots the mark, and continues either against gravity or against the spring; and this process is repeated many times.

If a vibrator is rapid, like a stretched cord or a clamped spring, the eye can hardly follow the vibrations; but the ear can detect them, for they will emit a musical note—that is, they will generate waves in the air—sound waves. That is something like how we start the so-called wireless waves in the ether—electric waves—or, at least, that is the simplest way.

To illustrate electric elasticity is very easy: you have only to charge an insulated body (which is easily done by the right kind of friction) and you know that it tries to discharge; so that if you bring your knuckle to it, you get a spark. For instance: Rub a sheet of thoroughly dry paper, still warm from the fire, on a clean table, with indiarubber; or give it a few strokes with a dry hand. When you lift the paper from the table, you find it sticks, being charged with electricity, and you hear little sparks snapping back to the table, which in the dark you can see.

Taking off clothes in dry weather gives the same effect, merely from friction. The charged piece of paper will adhere for a time to your clothes or to a wall, and otherwise behave oddly. You can warm and rub it again, and then if you lay it on a tea-tray, supported by three dried wine-glasses or tumblers, you can take a spark from the tray. Lift the paper off, you can get



Sir Oliver Lodge broadcasting at the London Studio.

another spark from the tray; put it on again, a third; take it off, a fourth, and so on.

The experiment is elementary and effective if done neatly. Each spark is a breaking down of the insulator under electric strain; it is like the snap of an elastic thread. Electrification is strain, and it tends to recoil or discharge when given the opportunity. The thing strained is not matter, but ether.

The discharge while it lasts is a current; but there are other ways of producing a current, and a current always generates magnetism; or rather, magnetism inevitably accompanies a current. You can easily maintain a current round an electro-magnet by connecting its coils to a battery. If you suddenly break that current, you get a spark across the gap: this is a different spark from the other, or, at least, it is due to a different cause: it is not due to electric strain or elasticity, it is due to magnetic impetus or momentum. I used to call it a B spark as a contrast to an A spark. The insulating partition is smashed as before, but smashed for a different reason: the violence exercised is not due to previous strain, and is not like the snap of an elastic: it is more like the stopping of a cricket ball or a bullet or a railway truck.

If you try to stop a cricket ball suddenly, by

a pane of glass, the glass is smashed: it was not previously strained, it is smashed by the momentum, or impetus, or inertia, or persistence in motion of the projectile. A railway truck can similarly be stopped by an obstacle, but not without violence; that is why buffers are made elastic, not rigid.

A sudden stop usually breaks something: an electric spark is a sign of breakage. If you do not stop an electric current, either by friction or in any other way, it goes on: it goes on, as a planet goes on, because there is nothing to stop it, and because of its magnetic momentum.

Why Waves are Possible.

The ether, therefore, possesses inertia, as matter does. Electric motion does not stop of itself. As when you stir a tea-cup, the spinning motion goes on for a time. Such motion is studied under the head Magnetism. The ether has two properties, the electric property and the magnetic property: one either is, or simulates, Elasticity; the other either is, or simulates, Momentum: and it is owing to these two properties that vibrations and waves are possible.

To generate waves, all you have to do is to charge an aerial positively and bring its terminal near a knob connected to earth. The elastic medium between them is strained till it snaps, a current begins, and that current can continue; so that the aerial which had been positive becomes negative. Then there is a recoil, a swing back again; and the swing is repeated several times—just like a pendulum or a clamped spring which has been strained to one side and then let go. The spark is oscillatory.

The whole process is so rapid that you cannot follow it without special arrangements; the oscillations are all over in an imperceptible time. But by looking at the spark in a rotating mirror, or photographing it on a rapidly-moving plate, the oscillations can be detected. You see, or you photograph, not a continuous band, but a beaded band, each bead corresponding to a swing of the pendulum. The swing, however, usually takes only the millionth part of a second; you cannot hope to observe it without apparatus. But by proper arrangements—that is, by using a large capacity and discharging it through a large inductance—it is possible to reduce the rate of oscillation till you get, not millions a second, but only thousands, or even hundreds, a second; in which case, the oscillations will be demonstrated by the spark giving a whistle or a musical note, instead of a snap.

These are the oscillations which, in 1888, were shown to generate waves in the ether.

Prodigious Density.

At the time when Clerk Maxwell gave the theory of ether waves, in 1865, no one knew how to produce them; they were not produced or demonstrated till twenty years later, partly by me in Liverpool, chiefly by Hertz in Karlsruhe. Thereby Clerk Maxwell's Theory was proved up to the hilt. Those are the waves we use in wireless telegraphy.

Speaking of Elasticity and Momentum or Density as belonging to the ether—we must not suppose that ether properties are just like those of matter—they are still more fundamental. We must look to the ether to explain the properties of matter: not vice-versa.

Electro-magnetic arguments show that the ether, though totally without viscosity, or anything akin to friction, is of enormous density, millions of times more massive than lead or gold. That the ether is so substantial will sound incredible: the ether's prodigious density has no influence on mechanics or on locomotion.

Lodge, the Man.

The Great Scientist at Work and Play.

EVEN to-day, when science enters so much into our daily lives, it is the custom to regard scientists as "dry," "stodgy" individuals! Such a description could never be applied to Sir Oliver Lodge.

Born in Staffordshire, the heart of industrialism, it was natural that he should have been intended for a business career; but blessed with a keen interest in many things that most little boys abominate—such as Greek and Euclid—he early determined that there are more interesting things in life than commerce. Most of his studies were done in his leisure moments, and it says much for his application and determination that he prepared himself for the stiff examination for the London Matriculation, which he passed easily, and, entering later for the B.Sc. degree, he obtained First Class Honours in Physics.

Pioneer Work in Wireless.

That was the first rung on the ladder of success, and after occupying many important scientific posts, he was appointed Principal of the University of Birmingham in 1900—a position he held for nineteen years.

As a rule, scientists are specialists, but Sir Oliver has made himself an authority in the most diversified fields. Mechanics, electricity, educational reform, mathematics, psychical research, the problem of dispelling fogs, and the problem of making artificial rain have all claimed his earnest attention; but he will ever be endeared to listeners for his pioneer work in wireless.

In 1919, Sir Oliver retired from his post as Principal of Birmingham University to devote himself to the problem of the Ether of Space, and the series of talks by him that are appearing in *The Radio Times* give some of the fruits of his studies.

A Little Child's Compliment.

The possession of more than the ordinary share of brains has not deprived Sir Oliver of wonderful physical vitality. Although in his seventy-fifth year, he is still extremely active and holds himself as upright as any Guards' officer. Standing well over six feet, with broad shoulders and a massive head, he is a striking figure anywhere. In spite of his erudition, he is greatly beloved by children, and one little child once summed him up very truly by describing him as "a great big lion with a white satin heart."

Golf and a keen love of Nature have helped to keep this famous scientist fit. His fondness for the beauties of the country is, indeed, almost a passion. "A man who removes a tree unnecessarily," he once said, "is a traitor to the sustaining forces of life, while he who plants or preserves one is a missionary of comfort and strength." But the scientist side of him comes out even when he is inclined to be poetic, for he immediately added apropos of trees: "Apart from their refreshing beauty, trees are air purifiers and oxygen generators."

The Disappointed Barber.

Sir Oliver is fond of a good joke and he relates many amusing stories. Not long ago, he told of an experience of a scientific friend of his who went to a certain large town in the Midlands to attend a meeting of the British Association. Entering a barber's shop, he found the proprietor very loquacious.

"What is this British Association that is meeting here to-day, sir?" asked the barber.

Sir Oliver's friend explained that it was a society of learned scientific men.

"Oh," exclaimed the barber in disappointed tones, "I thought it was a football team!"

C. T.

All About "The Roosters."

The Adventures of a Popular Concert Party.

At the foot of Olympus, which rises unmatched, amidst the Thracian Hills, "The Roosters" were hatched.

TIME hung heavily at Summer hill Camp, about five miles from Salonica, in March, 1917.

A Lieut. H. H. Warren decided upon an attempt to relieve the monotony of this camp's life by the formation of a concert party. In this he was supported by the Commandant, Captain Roose. A notice was posted calling for volunteers. It produced every kind of would-be artist. Thus it came about that, after many rehearsals, a final selection was made, and the "Roosters' Concert Party" was formed on March 28th, 1917.

Mule Tails as Curls.

The male costumes they adopted had been left as derelict by some regimental party, and the "girls' dresses were made from curtain material, and dyed mosquito netting. Ingenuity, and hair from the tails of mules, provided the necessary curls for the girls!

Their first memorable performance was given on the main deck of the Mediterranean Fleet Supply Battleship *St. George*, in the presence of the British Ambassador and his wife, Lady Grenville, officers of the Fleet, Army Headquarters Staff, and a great number of appreciative sailors.

It was not until September 13th, 1917, that they were made the official concert party of the 60th Division. Until then, they had performed the regular duties of soldiers. Three days later, they started on their first desert tour, which lasted for twenty-eight days, during which they gave twenty-one performances.

The Listeners' Friend



Mr. F. J. BROWN, C.B.

THE resignation, on January 31st, of Mr. F. J. Brown, C.B., C.B.E., Assistant Secretary of the General Post Office, cannot be passed over without a note of regret and appreciation. Mr. Brown was head of the Department which dealt with wireless telegraphy and telephony, and deserves a considerable share of the credit for the development of broadcasting in this country. During the negotiations prior to the formation of the B.B.C., it was Mr. Brown who represented the Post Office. Likewise, during 1923 and 1924, when a succession of difficulties was encountered, it again fell to Mr. Brown's lot to represent the Government Department concerned. It is no exaggeration to state that much of the success of British Broadcasting could not have been achieved but for Mr. Brown's help.

To his ready sympathy and keen interest, as well as to his judicial ability, the B.B.C. is much indebted. It should go without saying that he carries with him the good wishes of the B.B.C. to the new spheres of activity to which his retirement has opened the way. Incidentally, we are glad to feel that our relations with Mr. Brown's colleagues who carry on his work are equally cordial. We hope and believe that they will find their future closer connection with us as pleasant as Mr. Brown assures us it has been to him; nor are we unmindful of what we owe to them already.

J. C. W. R.

One of their most interesting experiences was in performing to the 17th London Regiment, who were then in the front line. It was necessary to do this in the daytime, as, otherwise, the lights at night might have attracted the enemy's gun-fire.

A stage was erected across the barbed wire entanglements. One of them has said that "the grease paint must have attracted the flies, for they swarmed on us, and to linger on a top note was to get a mouthful."

In the Desert of Sinai the stage for the "Roosters" was built by the Lancashire Pioneers, and a rough screen was painted by means of a shaving-brush, a necessary piano was camouflaged up the line as a case of bully beef, but eventually the "Theatre Royal, Sinai," was erected!

Materials were scarce and required for the grimmer business of war, so that their various "props" were more ingenious than sound. Wonderful effects, however, were obtained from biscuit tins, cardboard, wire, and wood, and even a suit of armour was produced.

Acting in Abram's Vineyard.

Proceeding to Palestine, one of their engagements was with a famous regiment quartered in Abram's Vineyard. This regiment had suffered severely, and were due to go into action on the night of the performance, which took place upon the stone floor of a corridor, with candles for foot-lights. The "Roosters" dressed on piled-up cases of Lewis gun ammunition, whilst the men were being served with their "120 rounds," and "iron rations."

Each member of the audience sat on his equipment ready for action should orders come through. At first the entertainers provoked no response from the grim and silent soldiers, but soon tension was relaxed, and at the end they were able to arouse roars of laughter.

"Army Reminiscences."

Over three hundred performances were given by them to the Armies in the East, in hospital wards, workshops, on warships, transports, in a Sultan's palace, in innumerable marquees, and in the desert wilds.

Mr. Percy Merriman, who was one of the original founders of the party, and is still its producer, has many and varied gifts. In addition to his *flare* for character acting, he had a good voice for part singing, and is a clever reciter.

Mr. Arthur Mackness, tenor, is the only member who appeared at every performance of the party. He was in Greece, Egypt, and Palestine. In the "Army Reminiscences" programme he played the part of an officer; his vocal duets with Mr. Septimus Hunt are much appreciated by listeners.

Mr. George Weston, pianist, joined the party in Egypt in the summer of 1917, and was known to the 60th Division as "Kitty, the charming flapper."

Mr. Septimus Hunt, baritone, played the part of sergeant-major in the "Army Reminiscences" programme. Himself sergeant in the Artillery during the war, he was also associated with Mr. Rutland Boughton in the "Sixes and Sevens Concert Party," and organized many concerts at the London Command Depot.

Mr. William Mack, humorist, is a fine portrayer of character, and in light comedy has just the right delicacy of touch. He is one of the original founders of the "Roosters," and in the early stages of its career he played as one of the "girls." His clever burlesques of the fair sex, and his soprano voice, were much enjoyed by the Armies in the East.

H. P.

Official News and Views. GOSSIP ABOUT BROADCASTING.

A Salvation Army Evening.

REPRESENTATIVES of the Salvation Army will give the Sunday evening service at London on February 22nd. The address will be by Mrs. General Booth. In addition to the hymns, music will be provided by the International Staff Band.

Old English Music.

The S.B. programme on Tuesday, February 24th, will consist of two parts; the first being a programme of old English music, including Elizabethan and folk songs sung by Miss Gladys Palmer and Mr. Dale Smith. Instrumental music will be provided by the Chaplin Trio, consisting of Miss Nellie Chaplin at the harpsichord, Miss Kate Chaplin playing alternately the violin and the old and sweet-toned viola d'amore, and Miss Mabel Chaplin playing the violoncello and its predecessor, the viola de Gamba.

"The Beggar's Opera" by Radio.

The next main attraction of the evening will be a shortened version, without dialogue, of *The Beggar's Opera*. The original music arrangements and compositions by Mr. Frederic Austin will be employed. The original orchestra from the Lyric Theatre, Hammersmith, with the exception of the oboe player, will be under the direction of Stanford Robinson, one of the conductors at Hammersmith. Macheath will be played by Mr. Frederick Ranalow, whose name will always be remembered in connection with his wonderful interpretation of this part at the Lyric.

Several principals of the original cast, including Miss Kathlyn Hilliard as Polly and Mr. Frederic Davies as Filch, will take part. Miss Gladys Palmer will take the parts of Mrs. Peachum and Lucy Locket and Mr. Dale Smith that of Mr. Peachum.

"Extra Turns."

A contrast to the Old English and *Beggar's Opera* programmes from London will be found in the popular orchestral programme at Chelmsford on Tuesday, February 24th. It will include songs by Mr. Keighley Dunn (tenor), entertainment by Miss Mabel Fitzgerald, and two more of Mr. F. W. Thomas's popular "Extra Turns," given by Mr. George Bellamy, the actor.

Savoy Dance Music will be heard from 10.30 till 11 p.m.

"Samson and Delilah."

Saint-Saëns' Opera *Samson and Delilah* will be given at the Manchester Station on Saturday, February 28th. Delilah will be taken by Miss Enid Cruickshank, Samson by Mr. Walter Widdop, and the High Priest of Dagon by Mr. Lee Thistlethwaite. They will be supported by the "2ZY" Opera Chorus, under the direction of Mr. S. H. Whittaker, and by the "2ZY" Augmented Orchestra,

conducted by Mr. T. H. Morrison. This opera is being relayed to the High-Power Station at Chelmsford.

"Boris Godounov."

The Birmingham Station will broadcast the first act of *Boris Godounov*, by Alexander Pushkin, translated from the Russian by Principal Alfred Hayes, of the Birmingham and Midland Institute, on February 27th. The play is being performed by the Literary and Dramatic Society of the University of Birmingham, directed by Mr. Stuart Vinden. This production contains special music composed by Professor Granville Bantock.

"The Case of Lady Camber."

The "2ZY" Dramatic Company will present the sixth of their series of monthly plays under the direction of Mr. Victor Smythe on Friday, February 27th. They will perform *The Case of Lady Camber*, a play in four acts, by Horace Annesley Vachell. The play was a great success in London at the Savoy Theatre in 1915. It is a light and pleasing story with good dialogue, making it eminently suitable for broadcasting. A new member of the "2ZY" Dramatic Company who will be making her debut on this occasion will be Miss Mary Eastwood. She recently scored a success in a performance of *Discovery*, given in Manchester by the Unnamed Society.

Haydn's "Creation."

A performance of Haydn's *The Creation* will be broadcast from London and Chelmsford on Sunday, February 22nd. The principals will be Mr. Stiles Allen, Mr. Spencer Thomas, and Mr. Robert Radford. The Wireless Orchestra and Chorus will be conducted by Mr. Percy Pitt.

Welsh Music, Song, and Drama.

It has been arranged to give the St. David's Day programmes from the Cardiff Station on Saturday, February 28th. The performance will be a comprehensive survey of Welsh music,

song, and drama, with the traditional airs, such as "Clychau Aberdyfi." The vocalists will be Mr. Walter Glynn (tenor), Mr. Madoc Davies (baritone), and Mr. W. Morgan Evans, Pennillion singing with the harp. Harp solos will be rendered by Rhiannon James. The Station Orchestra will include among its selections Edward German's "Welsh Rhapsody" and a number of old Welsh tunes. A play of Welsh life, *Second Childhood*, will also be presented.

Britishers All.

An interesting fact about the J. H. Squire Celeste Octet, which is to broadcast from London on February 17th, is that no foreign musician can become a member. Each of the eight must be British, and a notability in the musical life of London.

Mr. J. H. Squire occupies the position of musical adviser to Miss Gladys Cooper, Mr. Frank Curzon, Mr. Gilbert Miller and T. B. Vaughan; in addition he is musical director of the Adelphi, Apollo, Playhouse and St. James's Theatres.

For Yorkshire Listeners.

Lt.-Commander Kenworthy, M.P., will talk at the Hull Station on "The League of Nations," on February 24th, at 6.40 p.m.

Talks Worth Hearing.

Mr. George Macdonald, C.B., LL.B., will deliver the last of his series of talks on "Roman Britain" on Monday, February 23rd, at 9.40 p.m. These have been S.B. to all Scottish Stations and to Belfast. This talk will deal with the withdrawal of the Romans from Britain and the end of their domination of the island.

On Tuesday, February 24th, Mr. H. Mortimer Batten, F.Z.S., the naturalist, will talk on "Bird Fishermen and Their Methods."

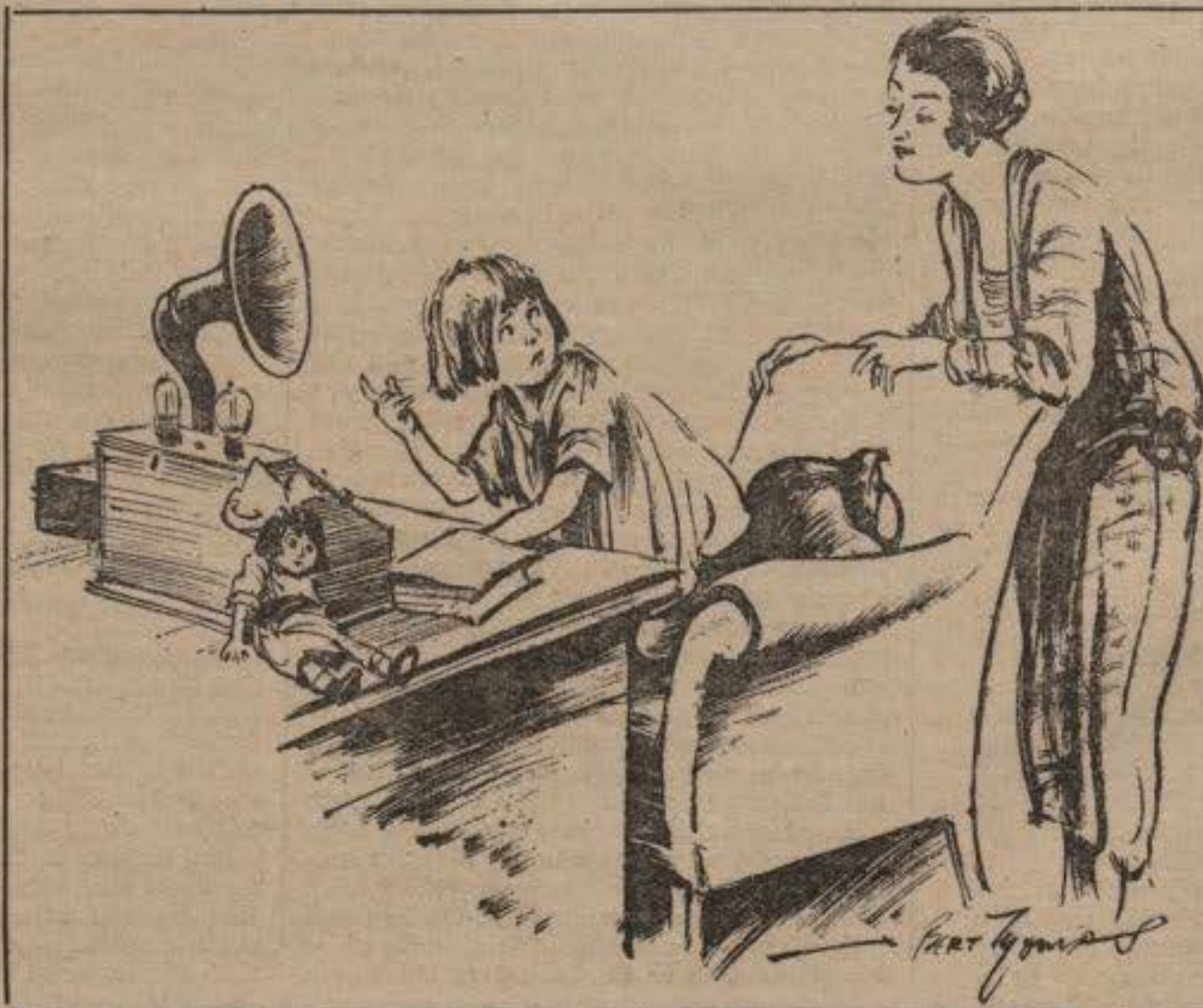
Mr. E. W. M. Balfour-Melville, M.A., Lecturer in History at the University of Edinburgh, will give the first of two talks to schools on "James L, King of Scots," at 3.30 p.m. on Wednesday, February 25th.

Scottish Singers.

The Edinburgh Male Voice Choir will take a prominent part in the programme to be broadcast from the Edinburgh Station on the evening of Friday, February 27th. This is one of the largest organizations of the kind in the city, and the numbers which they will render on this occasion will be of an attractive nature.

For Newcastle Charities.

The Newcastle programme on February 23rd will be broadcast from the Old Assembly Rooms, Westgate Road, Newcastle. Those taking part in the concert will include Miss May Blyth, Mr. Joseph Barrington, Miss Ivel, Miss Worth and Mr. Percy Merriman. The "5NO" Repertory Company will perform a short play, and 'cello solos will be given by Miss Hetty Page. All profits will be divided among local charities.



[Drawn by Bert Thomas.]

"Now, dear—off to bed!"

"Oh, Mummy, you are rude to talk when this gentleman is speaking."

PEOPLE YOU WILL HEAR NEXT WEEK.



Miss NORAH DELMARR, Soprano, is to sing from *Cardit* on Wednesday, February 18th.

Lord Birkenhead to Broadcast.

SOME excellent oratory is in store for listeners on Friday, February 20th, for on that date a speech by the Earl of Birkenhead is to be relayed from the Chamber of Commerce Banquet at the Grand Hotel, Birmingham.

A brother peer—Earl Balfour—once described Lord Birkenhead as "The most brilliant man of his generation," and considering the amazingly rapid strides that F. E. Smith (as he used to be known) has made on the ladder of success, the description is not inapt. After a brilliant career at Oxford, Lord Birkenhead became a K.C. within nine years of becoming a barrister, and he was only forty-seven when he occupied The Woolfsack. To-day, he is one of the busiest and most popular members of the Upper House.

The First Broadcast Playwright.

MR. RICHARD HUGHES' plays do not need any introduction to listeners. He was the first, and



Lord BIRKENHEAD.

is still one of the most popular, of our broadcast playwrights—the author of *Danger*, *The Man Who Sang in His Bath*, *Congo Night*, and *Christopher Columbus*. He had already made a name, before broadcasting began, by his play *The Sisters' Tragedy*, which was produced in London and New York while he was still an undergraduate at Oxford. One critic has called it "one of

the finest short tragic plays in the English language."

Now he has published a collected volume, "The Sisters' Tragedy and other Plays." There are both tragedies and comedies; and all have been produced, at one time or another, in London theatres. The most famous of his radio-dramas, *Danger*, the coal-mine play, is included also.

A Famous Liverpool Organist.

LISTENERS will have the opportunity, on February 21st, of hearing one of the finest organs in England played by a master organist—Mr. Herbert F. Ellingford—for on that date one of the famous Saturday recitals is to be broadcast from St. George's Hall, Liverpool.

Mr. Ellingford gave his first public recital at the age of thirteen, and he was elected City Organist of Liverpool in 1912. The story of his election is an interesting one. When by the death, in 1912, of Dr. Peace, organist of St. George's Hall, the post became vacant, it was thrown open to public competition by the Corporation of Liverpool. Mr. Ellingford entered for this competition and won easily.



Miss ELSIE SUDDABY will sing from *Lenfon* on Sunday, February 15th.



Miss BEATRICE EVELINE, 'Cellist', who will broadcast from various stations next week.



Mr. SAMUEL KUTCHER.

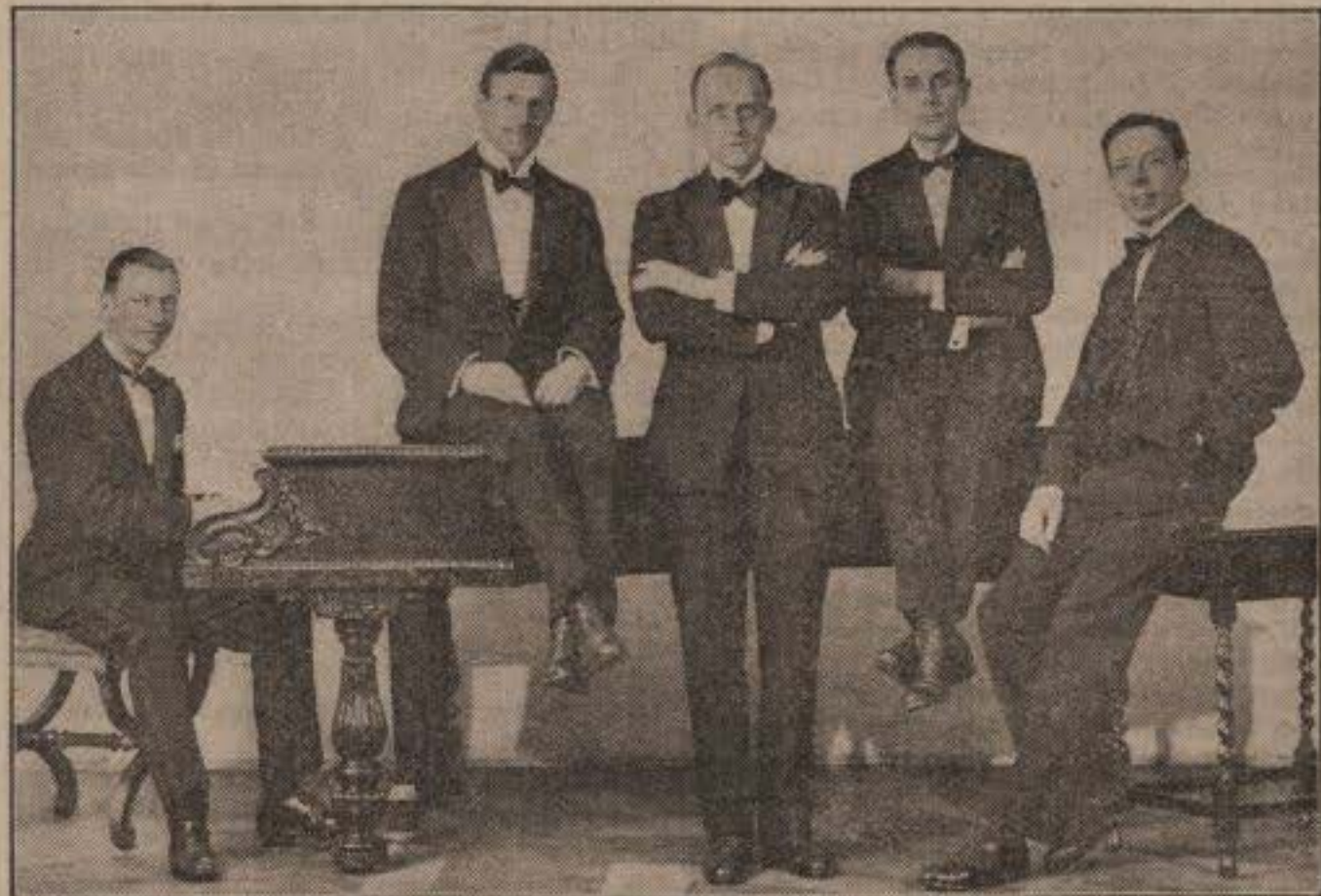
THE Kutcher Quartet only began to broadcast a few months ago; but it has already established a radio reputation, and listeners will be glad to know that it will broadcast again on Thursday, February 19th, from the London studio. Mr. Samuel Kutcher, the leader, whose portrait this is, is also well-known as a soloist. He was a pupil of Albert Sammons and is noted for his virtuosity.



Mr. RICHARD HUGHES.



Mr. H. F. ELLINGFORD.



THE ROOSTERS CONCERT PARTY.

(An article on the history of these popular entertainers will be found on page 339.)

Pieces in the Programmes.

A Weekly Feature Conducted by Percy A. Scholes.

PARRY'S "BLEST PAIR OF SIRENS."

(GLASGOW, EDINBURGH AND DUNDEE, MONDAY).
THIS is a noble setting for eight-part Chorus and Full Orchestra of Milton's fine poem, *At a Solemn Musick*.

It is dedicated to "C. V. Stanford and the Members of the Bach Choir" and was performed by them in 1887. Since then it has been performed by every considerable Choral Society in the country, and at every Choral Festival. It is one of our most truly national pieces of modern choral music.

It begins with a swinging, dignified Orchestral Introduction, which constitutes a sort of orchestral "Main Tune," out of the material of which the orchestral accompaniment of the piece is fashioned.

At last the Chorus enters, in eight parts, in plain, strong harmonies:—

Blest pair of Sirens, pledges of Heaven's joy,
Sphere-born harmonious sisters, Voice and Verse,

Wed your divine sounds, and mixed power employ,
Dead things with inbreathed sense able to pierce;

A mere couple of bars of Orchestra alone, and then the voices enter with a little phrase of poem and music, one voice after another, until all are again united:—

And to our high-raised phantasy present
That undisturbed song of pure consent,
Aye sung before the sapphire-coloured throne
To Him that sits thereon,
With saintly shout and solemn jubilee;

The music, we feel, is rising to a great climax. Two more bars of orchestral playing, and with full power of voices and instruments the climax is reached:—

Where the bright Seraphim in burning row
Their loud up-lifted angel-trumpets blow.

The Orchestra repeats the last thrilling phrase of the voices, and then, with an interweaving of the eight vocal parts, the words are given out:—

And the Cherubic host in thousand quires
Touch their immortal harps of golden wires,
With those just Spirits that wear victorious palms,
Hymns devout and holy psalms
Singing everlastingly.

Now the Orchestra repeats most of the Introduction. When it has played eight bars of this, the Chorus joins in (now in four parts only):—

That we on earth, with undiscording voice,
May rightly answer that melodious noise;
As once we did, till disproportioned sin
Jarred against nature's chime, and with harsh din

Broke the fair music that all creatures made
To their great Lord, whose love their motion swayed

In perfect diapason, whilst they stood
In first obedience, and their state of good.

The graphic musical treatment of the thought of jarring sin, cannot be overlooked by any listener.

A brief Orchestral interlude follows, and then, very touchingly, the Sopranos alone (and how effective their simple line of melody!) introduce the wish:—

O may we soon again renew that song.

The Tenors join, with the same tune, and before long the Altos and Basses have crept in, so that (in four parts) the whole Choir is singing:—

O may we soon again renew that song,

And keep in tune with Heaven till God ere long

To His celestial concert us unite,

Then Basses, Altos, Tenors and Sopranos enter (in that order) with the last line of the poem,

taking up from one another a line of melody, fugue-fashion:—

To live with Him, and sing in endless morn of light!

Thus is built up again an eight-part chorus, weaving and interweaving the choral thread, until at length, in plain, full simple chords (the Orchestra meanwhile giving out a fragment of the opening Orchestral Tune of the Introduction), they bring the music to a majestic close.

BYRD'S "GREAT" SERVICE.

(NEWCASTLE, SUNDAY).

The "Great Service" of William Byrd is so entitled, as its discoverer, Dr. Fellowes, reminds us, for a merely technical reason. In Tudor days, when Cranmer had rigorously enjoined a note-for-syllable setting of the words of the Liturgy, composers who required an outlet for a larger flow of the volume of their inspiration than this allowed occasionally ignored authority and wrote in the older, more florid style, so, necessarily, producing works of more length. Hence the existence of "short" services and "great" services, of which Byrd wrote both. But the modern world, having now had an opportunity of hearing the latest of Byrd's works to be published, will use the word "great" in another sense.

This is, indeed, great music—great in the impulse behind it, great in the skill with which the composer has provided that impulse with its means of communication to us. This discovery of an extended piece of music of our best period, which for three centuries has lain hidden in scattered and dusty part-books, has no mere antiquarian interest. The event is comparable with the revelation of a new play of Shakespeare's—even of an "Othello" or a "Hamlet."

There follows a very brief description of the music, section by section. (The word "Verse" indicates solo voices or at all events a small body; "Full" indicates the whole choir.)

I. VENITE. *O come, let us sing unto the Lord.* For the most part a plain, simple line-by-line setting of the words. It starts with Sopranos and Altos (verse) only, the full choir entering at "Let us come before His presence." The Gloria is as simple and straightforward as what has preceded.

II. TE DEUM. *We praise thee, O God.* The Priest sings the opening words, and the Choir then joins in (Verse). At "All the Earth" the Full Choir enters; the climax of the music comes at "Holy, Holy."

A new section opens at "Thou art the Everlasting God." "O Lord, have mercy," is beautifully treated.

III. BENEDICTUS. *Blessed be the Lord God of Israel.* This is the most complex of the various sections of the Service. The voices "imitate" one another a great deal, in the taking up of the phrases. The Gloria is magnificently bold, and very elaborate.

IV. KYRIE. *Lord have mercy upon us.* Short and simple.

V. CREED. *I believe in God the Father Almighty.* Complex and expressive. Note how each clause of the words receives its appropriate treatment.

VI. MAGNIFICAT. *My soul doth magnify the Lord.* One of the finest portions of the Service. The Gloria is magnificent.

VII. NUNC DIMITTIS. *Lord, now lettest Thou thy servant depart in peace.* Mostly calm and simple, but growing in intensity.

The above is a very inadequate description, but as much as space will allow. The music is published for the Carnegie Trust, by Stainer and Bell, 6s.

Listeners' Letters.

[All letters to the Editor to be acknowledged must bear the name and address of the sender. Anonymous contributions are not considered.]

Syncopated Masterpieces.

DEAR SIR,—Your correspondent, "G. A. K.," says that syncopated music is a craze, pure and simple, and is bound to die a swift death. May I point out to "G. A. K." syncopated music came into being long before he was born and will live for all time?

He will find it in some of the works of the great masters, viz., Handel (*Messiah*), Mozart (*12th Mass*), and many others one could mention. It is also to be found in some of the Mission Hymn Books. What is the matter, in my opinion, is that the word syncopation is regularly contaminated with the awful word "Jazz." Syncopated music such as we hear played from time to time by the Savoy Bands is played superbly.

I have had twenty-five years' experience arranging programmes and know how difficult it is to please.

Yours, etc.,

Castleford.

"AMATEUR MUSICIAN."

A Good Omen!

DEAR SIR,—We were enjoying a film in a London cinema the other evening and were far away in imagination on board a yacht off the Palm Beach, Florida. A gay party of young Americans was seen dancing on deck. Suddenly one of them said: "It's jazz-time in Piccadilly, let us tune-in with London." They tuned-in the wireless set, and arranged the loud speaker.

The band in the cinema stopped playing; we listened expectantly for the Announcer, and "2LO calling" was flashed on the screen.

Immediately we heard: "Miau—wow, miau, miau, mow—wow-wow!" and the cinema black cat marched down the gangway, broadcasting at the top of his voice!

If there be anything in omens, we may take it as a good one, that a black cat should impersonate "2LO" so early in the New Year.

Yours, etc.,

London.

A. C.

America Heard at Chelmsford.

DEAR SIR,—I have recently derived great pleasure from the programmes broadcast from "WBZ," the Westinghouse Company's station at Springfield, America. These transmissions are easily received after the closing down of the B.B.C. stations.

An interesting innovation is the provision of Radio University Extension Courses. A full announcement was made the other day, and these Courses appear to be arranged by the local authority for university education, in conjunction with the owners of the station. The subjects at present embraced are "Appreciation of Music," "Appreciation of Literature," and "French." Each course consists of a series of eight weekly lectures, together with correspondence with "registered students." The registration fee for each course is one dollar.

Several testimonials from students were broadcast, and seemed to indicate that the scheme was very popular.

Yours, etc.,

Chelmsford.

B.Sc.

A Good Word for Atmospheric!

DEAR SIR,—I feel that someone ought to put in a good word for Atmospheric. Atmospheric originate in storms and form a valuable guide to their position. With their help, airmen can select their time and route so as to avoid the storms and their dangers. So atmospheric serve at least one useful purpose. Let listeners remember that!

Yours, etc.,

Cricklewood, N.W.

"AVIATOR."

(Continued on the facing page.)

Listeners' Letters.

(Continued from the previous page.)

Secrets of the Broadcasting Studio.

DEAR SIR.—Apropos of Captain Eckereley's remarks in *The Radio Times*, and as a result of my own observations, the following suggestions have occurred to me.

I notice that in the case of some singers the sound intensity of the voice dwindles so much as to give the impression that they had left the microphone. This effect, I assume, is the result of the unconscious movement of the singer, who at times throws his, or her, head back, or moves it from side to side. Now, the microphone, fixed at about four feet from the floor, is bound to miss the full value of some of the notes so directed, with resulting unevenness of sound volume at the receiving end. It would, therefore, seem advisable that two or more microphones should be fixed in the studio and placed at least eight feet from the ground, as sound has a decided tendency to rise.

One does not expect singers to alter their methods which have taken years to acquire—indeed, to do so would probably introduce worse effects—but the transmitter should be adapted in all possible ways to accommodate them.

We listeners should by this time be well aware that conditions in a small studio are different from those prevailing in concert halls and theatres. The truth about this is apparent to all, and is frequently pointed out officially; but the reason why the B.B.C. do not rent a suitably large hall for their operations is not quite so clear.

Yours, etc.,

Croydon.

E. S. T.

[The effect described in the above letter has not been noticed a great deal on the B.B.C. checking sets. It is suggested that possibly this fading of the sound is simply caused by an artist singing *piano* in contrast to a previous *forte* passage. The singer is sufficiently far away from the microphone to make any movement of the head indistinguishable so long as the intensity remains the same. Definite experiments have been made to prove this. The B.B.C. admit the desirability of transforming the present studio into an auditorium, and if ideal conditions could be applied at once this is the course that would be adopted. Unfortunately, ideal conditions are not possible at present, but an early improvement is anticipated.]

Too Much Classical Music?

DEAR SIR.—Although I agree with "Satisfied Listener" when he says that there is too much criticism of your programmes, I think that a little criticism must sometimes help you. I am the owner of a crystal set and, of course, can only listen to "5XX," and my own small grievance is that the programmes that we receive are rather heavy or classical. Although I like classical music, one can have too much of it, and I (and a few of my friends to whom I have spoken about it) think that a "dance night" would be welcome.

Yours, etc.,

Wolverton.

L. S.

"Land of Hope and Glory."

DEAR SIR.—In Mr. A. B. Cooper's interesting article in *The Radio Times* on Elgar's song, "Land of Hope and Glory," he quotes the Master of Magdalene College as asking whether the Cantata in which the song occurs has ever been performed as a whole.

I remember hearing it sung by the Hallé Concert Society, and I have been looking up my old programmes and find that it was sung by them on January 15th, 1903, in the Free Trade Hall, Manchester. The conductor on this occasion was Dr. Hans Richter, who was a great admirer of Elgar and his music.

Yours, etc.,

Martin, Lincoln.

H. C. G. R.

How We Get Our Crystals.

A Thriving Industry Due to Broadcasting.

ONE of the most remarkable of the many economic and industrial results due to broadcasting is the trade in crystals, those commodities which, though they have mostly existed for untold ages, were absolutely unknown to many of their present users only a few years ago. If, indeed, cross-word puzzles had been introduced before the "How to Make a Crystal Set" article, some such clue as "An ore" to a word of seven letters, ending in L, would have caused a queue outside the Geological Museum for the first time in the history of that institution.

Many Different Names.

Now, nearly every shop window in which wireless accessories are profusely displayed contains specimens of crystals, which appear to be numbered by the hundred. They are actually not so large a family as they seem, because a particular crystal is often known by many trade names. An instance is galena (natural sulphide of lead), which is a singularly polyonymous commodity. It is usually supplied in cheap receiving sets. Sometimes, too, a crystal may be either natural or synthetic, and in each case may bear a number of names. Still, to-day many substances, some of which are not crystalline, though for wireless purposes they rank as "crystals," are sold as detectors.

One class consists of natural crystals, such as, in addition to galena, copper pyrites and zincite (oxide of zinc). A curiosity in this group is tellurium, which is an element of rare occurrence, and is found in a few minerals in association with gold, silver, and bismuth. First discovered in the Maria Loretto Mine, Transylvania, it possesses many of the characteristics of a metal, but it is now generally classed among the non-metallic elements.

A General's Discovery.

In another group come carborundum, silicon, and similar artificial crystals. It was with carborundum that the property of crystals for which they are used in receiving was first revealed, General H. H. C. Dunwoody, of the U.S. Army, discovering it in 1914, in connection with wireless telegraphy. So the application of one marvel of pure science led to the revealing of another—that crystals, owing to their perfectly organized structure, will "rectify," or convert, an alternate current into a direct one, and thus act as detectors of electric waves.

Lastly, there are crystals which are coupled or combined with others, as graphite and galena, zincite and bornite (a copper ore), zincite and chalcopyrite.

Thus a vast field—a field which, if it does not extend from China to Peru, comprises a large part of the earth's surface—is drawn upon for crystals.

Found at Home.

At home we have graphite, the principal sources of which are the blacklead mines of Cumberland; galena, which is mined in Derbyshire, Cornwall, Wales, and the Isle of Man; and copper pyrites, one of the mineral products of Cornwall, where it is called "peacock ore," or by a term derived from the Towan Mine, "towanite." But some of these substances are also imported.

Among the natural crystals for which we are wholly dependent upon other countries are zincite and tellurium. The only places in the world where zincite is found in any quantity are the zinc mines of New Jersey, U.S.A., and tellurium is also of rare occurrence, most of the world's supply coming from North America.

There remain the artificial crystals. Silicon can be obtained practically anywhere, because,

though it does not occur free in Nature, it exists in great profusion, in combination with other elements, in the solid matter of the earth, and is a constituent of substances so dissimilar in appearance as asbestos and clay. It can be obtained in the form we know it by heating in a crucible fine sand with magnesium powder.

Made at Niagara Falls.

Carborundum, on the contrary, is a strictly localized product, though less so than it was a few years ago, because all of it was formerly made at Niagara Falls, and its chief place of manufacture is still there. Its components are coke crushed to a fine powder and glass sand, to which are added salt and sawdust. This compound is placed in an electric furnace, and through it an electric current of 1,000 horsepower of energy is passed for thirty-six hours, subjecting it to a heat of about 7,000 degrees F. When the furnace has cooled down, the contents are found transformed into large masses of beautiful crystals, varying in colour from brown through green and blue to silver-grey.

Before General Dunwoody's discovery, carborundum, which, after the diamond, is the hardest mineral substance known, was used exclusively as an abrasive; but as broadcasting spread, it was largely pressed into service as a detector for receiving sets. Recently, however, it has been partly superseded by galena and other ores.

Careful Tests.

Crystals are prepared for the shops by numerous firms. Usually, the blocks of ore or other substance are delivered to them in lumps ranging from a few ounces to twenty or thirty pounds in weight, and are by them broken up into pieces that will fit into the brass holder.

Each is then tested separately on a receiver, because portions of the same lump vary greatly in efficiency. One may be satisfactory and the next give an entirely negative result. Every pound of some substances may, in fact, yield only about one ounce of good crystals. Carborundum, for instance, is singularly unequal, and firms which have handled it have thrown aside as useless for their purpose eighty per cent. of some blocks. The best lumps are said to be those of a silver-grey colour.

"Blind Spots"

Pieces which are all "blind spots," however, are not necessarily discarded. By specially treating them or combining them with other crystals, they may be made serviceable. After the pieces have been tested, they are placed in boxes or tubes, and then they are ready for the market.

A crystal should, therefore, give perfect satisfaction in use. No doubt, much rubbish has been sold, with the result that some listeners have tried one "marvel" after another without success. But plenty of sensitive crystals can now be obtained, and any dealer of repute will supply them.

T. W. WILKINSON.

A PHILHARMONIC PROGRAMME.

PART of the Liverpool Philharmonic Society's ninth concert will be relayed to Liverpool listeners on February 24th, when the conductor will be Mr. George Schneevogt, and the solo violinist, Mr. Arthur Catterall. The works to be broadcast include: Overture "Carnaval" (Dvorak), "Forest Murmurs" (*Siegfried*) (Wagner), Violin Concerto Op. 61 (Beethoven).

The latter part of this programme will be of particular interest, as Mr. Jules Gaillard, the popular violinist, will broadcast from the Studio, assisted by Madame Gaillard and Mr. Robert Curtis in a violin, 'cello and harp recital.

WIRELESS PROGRAMME—SUNDAY (Feb. 15th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2LO LONDON. 365 M.

Star Ballard Concert.
S.B. to other Stations.
ELSIE SUDDABY (Soprano).
HERBERT HEYNER (Baritone).
CEDRIC SHARPE (Solo Violoncello).
CLAUDE POLLARD and ISABEL GRAY (Duets for Two Pianos).

3.0. Claude Pollard and Isabel Gray.
Andante and Variations, Op. 46... *Schumann*
Elsie Suddaby.
"Weep You No More" *B. Quilter* (1)
"Danny Boy" (Old Irish Air)
Weatherly (1)
"Night in the Desert" *Edgar F. Day*

3.30 (approx.). Cedric Sharpe.
Aria (from "St. John's Passion")
Bach-Sharp
Minuet *Rameau-Salmon*
Allemande *Senaille-Salmon*

Herbert Heyner.
"The Dimpled Cheek" *arr. Somervell*
"The Golden Vanity" *arr. Broadwood*
"Molly Brannigan" *arr. Stanford* (1)
"The Drowned Sailor" *arr. Sharpe* (11)
"Ward the Pirate"
arr. Vaughan Williams (11)
Claude Pollard and Isabel Gray.
"Petite Suite" *Debussy*
"Cortège"; "Menuet"; "Ballet."

4.0 (approx.). Elsie Suddaby.
"The Hostel" *Bairstow* (14)
"Shepherd, Thy Demeanour Vary"
Brown, arr. Lanc Wilson (1)
"By Thy Banks, Gentle Stour" *Boyce*
"O Yes, Just So" ("Phœbus and Pan")
Bach
Cedric Sharpe.
"Minstrel's Song" *Glazounov*
"A Funny Little Fairy Story"
Onslow Traheme, arr. Sharpe
"Chanson de Nuit" *Elgar* (11)
"Pavane" *Herbert Sharpe*

4.30. (approx.). Herbert Heyner.
"The Birds of Bethlehem" *Walford Davies*
"A Ballad to Queen Elizabeth" (First Performance) *L. Stanton-Jeffries*
"An Epitaph" *M. Besly* (2)
"Apple Winds" *M. Besly* (1)
"The Holy Child" *Easthope Martin*
Claude Pollard and Isabel Gray.
"Silhouettes" (from Op. 23) *Arensky*
"The Coquette"; "Punch"; "The Dreamer"; "The Dancer."

5.0-5.30.—CHILDREN'S CORNER. S.B. from Cardiff.
8.30.—Hymn, "As Pants the Hart for Cooling Stream" (A. and M., No. 236).
Bible Reading.
Anthem, "He That Shall Endure" ("Elijah") *Mendelssohn*
Address by the Rev. H. C. THOMAS, M.A., Private Chaplain to the Bishop of London.
Hymn, "Peace, Perfect Peace" (A. and M., No. 537).

9.0. DE GROOT and THE PICCADILLY ORCHESTRA.
HENRY LUSCOMBE (Baritone).
Relayed from the Piccadilly Hotel, London. S.B. to other Stations.
The Orchestra.
Overture, "The Magic Flute" *Mozart*
Henry Luscombe.
Prologue, "Pagliacci" *Leoncavallo*
The Orchestra.
"Liebestraum" *Liszt-Mulder*
Henry Luscombe.
"A Devonshire Wedding" *Lyell Phillips*
The Orchestra.
Grande Fantaisie, "Samson et Delilah"
Saint-Saëns

10.0.—TIME SIGNAL. WEATHER FORECAST and GENERAL NEWS BULLETIN. S.B. to all Stations.
Local News.

10.15.—De Groot and the Piccadilly Orchestra (Continued).
The Orchestra.
"Londonderry Air" *arr. G. Colman*
"Ave Maria" (By Request) *Schubert*
10.30.—Close down.

5IT BIRMINGHAM. 475 M.

3.0-5.0. A Programme of Favourites.
THE STATION SYMPHONY ORCHESTRA:
Conducted by JOSEPH LEWIS.
EDITH PADDOCK (Soprano).
WINIFRED MORRIS (Contralto).
The Orchestra.
Overture, "Stradella" *Flotow*
Winifred Morris and Edith Paddock.

Arias { "He Shall Feed His Flock" } ("The Messiah") *Handel*
 { "Come Unto Him" }
The Orchestra.
Slow Movement and Finale from "New World Symphony," No. 5, Op. 95 in E Minor *Dvorak*

Winifred Morris.
Aria, "But the Lord is Mindful" ("St. Paul") *Mendelssohn*
The Orchestra.
March, "Hall of Song" *Wagner*
Edith Paddock.
Aria, "From Mighty Kings" *Handel*
The Orchestra.
Solemn Overture, "1812" *Tchaikovsky*
Winifred Morris.
"The Sands of Dee" *Cyril Scott* (4)
The Orchestra.
Selections from "Coppélia Ballet" *Delibes*
Edith Paddock.
"My Mother Bids Me Bind My Hair"
Haydn
The Orchestra.

Selections from "Nutcracker Suite," Op. 71 A *Tchaikovsky*
5.0-5.30.—CHILDREN'S CORNER. S.B. from Cardiff.

8.30-9.0.—Hymn, "Hark, My Soul, It Is the Lord" (A. and M., No. 260).
Religious Address by The Rev. L. BROWN, St. Andrew's Church, Bordesley.
Hymn, "Ye Servants of the Lord" (A. and M., No. 269).

9.0.—DE GROOT and THE PICCADILLY ORCHESTRA. S.B. from London.
10.0.—WEATHER FORECAST and NEWS. S.B. from London.
Local News.
10.15.—De Groot and the Piccadilly Orchestra.
10.30.—Close down.

6BM BOURNEMOUTH. 385 M.

Russian Symphony Concert.
THE WIRELESS AUGMENTED ORCHESTRA:
Conductor,
Capt. W. A. FEATHERSTONE.
WINIFRED SMALL (Violin).
ADOLPH RIABIN (Tenor).

CHAPPELL
and
WEBER
pianos are in use at the various stations of the B.B.C.

3.0. Orchestra.
Symphony No. 5 in E Minor, 1st and 2nd Movements *Tchaikovsky*
Adolph Riabin.

3.25. "Sleep, My Beautiful Maiden" *Rimsky-Korsakov*
"A Night in May" *J. Korsakov*
"Hindoo Song" *Sadko*

3.35. Winifred Small.
Concerto for Violin and Orchestra
Tchaikovsky
Adolph Riabin.

4.0. "Why Are the Roses So Pale?"
Tchaikovsky
"Prison Song" *Stonoff*
"Gopak" *Moussorgsky*

4.10. Orchestra.
Symphony No. 5 in E Minor, 3rd and 4th Movements *Tchaikovsky*

4.35. Winifred Small.
"Slave Dance" *E. Zimbalist*
"A Memory of Moscow" *Wieniawski*

4.45. Orchestra.
Overture, "1812" *Tchaikovsky*

5.0-5.30.—CHILDREN'S CORNER. S.B. from Cardiff.
8.30. Choir of the Church of the Annunciation, Choir Master, SIDNEY J. BINT.
Motet, "Jesu Dulcis Memoria" (*Vittoria*).
Hymn, "O Paradise" (Westminster Hymnal).

8.35.—The Rev. PERCIVAL TRIGGS: Religious Address.

8.45. Choir.
Hymn, "Jesus, Lord, Be Thou My Own" (Westminster Hymnal, No. 65).
Motet, "Justorem Animæ" (*Terry*).

9.0.—DE GROOT and THE PICCADILLY ORCHESTRA. S.B. from London.

10.0.—WEATHER FORECAST and NEWS. S.B. from London.
Local News.
10.15.—De Groot and the Piccadilly Orchestra.
10.30.—Close down.

5WA CARDIFF. 351 M.

3.0-4.30. BLODWEN CAERLEON (Vocalist).
THE STATION ORCHESTRA:
Conductor, WARWICK BRAITHWAITE.
The Orchestra.
"The Italian Symphony" *Mendelssohn*
Blodwen Caerleon.

"Yonder" *Herbert Oliver* (8)
"The Hills of Donegal" *Sanderson* (1)
"A Brown Bird Singing" *Haydn Wood*
The Orchestra.

Selection, "Hansel and Gretel"
Humperdinck
Blodwen Caerleon.

"O Lovely Night" *Landon Ronald* (5)
"Love Went a-Riding" *Frank Bridge*
"Still as the Night" *Goetz*
The Orchestra.

Overture, "L'Impresario" *Mozart*
Suite, "Bergamasque" *Debussy*
Blodwen Caerleon.

"When All Was Young" ("Faust")
Gounod

"Red Roofs" ("By Road and River")
May Brahe (5)

"Morning Song" *Quilter*
The Orchestra.
"Spring Song" *Mirovitch*
"Coronation March" *Eitenberg*

5.0-5.30.—CHILDREN'S CORNER. S.B. to all Stations.

6.30-8.0.—Religious Service relayed from Tredegarville Baptist Church. Preacher: The Rev. B. GREY GRIFFITHS, B.D.

9.0.—DE GROOT and THE PICCADILLY ORCHESTRA. S.B. from London.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

WIRELESS PROGRAMME—SUNDAY (Feb. 15th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

10.0.—WEATHER FORECAST and NEWS. *S.B. from London.* Local News.
 10.15.—De Groot and the Piccadilly Orchestra.
 10.30.—"The Silent Fellowship."
 10.45.—Close down.

2ZY MANCHESTER. 375 M.

3.0-5.0. **Sonata Recital, Solos and Songs.**
 MERCIA STOTESBURY (Violin).
 ETHEL BARTLETT (Piano).
 STEPHEN WILLIAMS (Bass).
 Mercia Stotesbury and Ethel Bartlett.
 Sonata ("The Kreutzer") *Beethoven*
 Adagio Sostenuto; Andante con Variazione; Presto.
 Stephen Williams.
 Old English Songs.
 "It Was a Lover and His Lass"
 T. Motley
 "What Shall I Do?" *Henry Purcell*
 "All in a Garden Green" *Traditional*
 "Love Will Find Out the Way" *Traditional*
 Mercia Stotesbury.
 "After a Dream" *Fauré*
 "Rondo" *Mozart-Kreisler*
 Ethel Bartlett.
 Gavotte in G Major *Bach*
 "Reflections in the Water" *Debussy*
 "Hark, Hark the Lark" *Schubert-Liszt*
 Stephen Williams.
 "Love's Flame" *Rachmaninov*
 "Dream in the Twilight" *Strauss*
 "Now Sleeps the Crimson Petal"
 B. Quilter (1)
 "A Rann of Wandering" *Harty* (11)
 Mercia Stotesbury and Ethel Bartlett.
 Sonata in A Major *César Franck*
 Allegretto ben Moderato; Allegro;
 Recitativo Fantasia; Allegretto poco Mosso.

5.0-5.30.—CHILDREN'S CORNER. *S.B. from Cardiff.*
 8.0.—S. G. HONEY: Talk to Young People.
 8.25.—English Hymnal, No. 99, "Glory Be to Jesus."
 Religious Address by the Rev. J. J. WELCH, of Mount Carmel Church, Salford.
 English Hymnal, No. 393, "Glorious Things of Thee Are Spoken."
 English Hymnal, No. 277, "The Day Thou Gavest, Lord, is Ended."
 9.0.—DE GROOT and THE PICCADILLY ORCHESTRA. *S.B. from London.*
 10.0.—WEATHER FORECAST and NEWS. *S.B. from London.* Local News.
 10.15.—De Groot and the Piccadilly Orchestra.
 10.30.—Close down.

5NO NEWCASTLE. 400 M.

3.0-5.0.—Programme *S.B. from London.*
 5.0-5.30.—CHILDREN'S CORNER. *S.B. from Cardiff.*
 Religious Service.
S.B. to "5XX."
 8.30. Bach Choir.
 Chorales ("Christ Lay")
 ("The Lord My Guide") *Bach*
 Address by The Very Rev. The DEAN OF DURHAM.
 Bach Choir.
 Chorales ("All Things Now Lie"
 "O Thou Consoling"
 "Fire") *Bach*
 Byrd's Great Service
S.B. to "5XX."
 9.0. THE NEWCASTLE BACH CHOIR:
 Conducted by Dr. W. G. WHITTAKER.
 Relayed from Brunswick Place Church.
 Order of Service: Venite, Te Deum, 1st Lesson, Benedictus, Kyrie, Creed, 2nd Lesson, Magnificat, Nunc Dimittis.
 The Lessons will be read by The Rev. A. E. CORNYBEER, Vicar of St. John's.

10.0.—WEATHER FORECAST and NEWS. *S.B. from London.* Local News.
 10.15.—DE GROOT and THE PICCADILLY ORCHESTRA. *S.B. from London.*
 10.30.—Close down.

2BD ABERDEEN. 495 M.

3.0-5.0.—Programme *S.B. from London.*
 5.0-5.30.—CHILDREN'S CORNER. *S.B. from Cardiff.*
 8.0. Gilcomston U.F. Church Choir.
 Psalm 68, v. 18 to 20 (Tune: "Twerton").
 J. MICHIE (Tenor).
 "The King of Love."
 The Rev. JAMES G. DUNN, M.A., Gilcomston U.F. Church: Religious Address.
 Choir: Paraphrase 65, v. 5 to 11.
 9.0-10.30.—Programme *S.B. from London.*

5SC GLASGOW. 420 M.

3.0-5.0.—Programme *S.B. from London.*
 5.0-5.30.—CHILDREN'S CORNER. *S.B. from Cardiff.*
 8.30.—Choir: Psalm No. 33, "Ye Righteous, in the Lord Rejoice" (Tune: "Irish"). (The Psalter.)
 The Rev. JOHN LINDSAY, of Wellfield U.F. Church, Springburn: Religious Address.
 Hymn, "Fight the Good Fight" (Tune: "St. Crispin") (Church Hymnary, No. 249).
 Prayer.
 Hymn, "O for a Closer Walk with God" (Church Hymnary, No. 236).

9.0 THE WESTBOURNE CHURCH CHOIR.

Conducted by A. M. HENDERSON.
 (Organist of The University of Glasgow.)
 "A Cappella" Church Music of the 16th Century.
 Psalm No. 124 (Scottish Psalter 1564) (Tune: "Old 124th") *Tallis*—1510-1585
 "All People That on Earth Do Dwell." *Farrant*—1530-1580
 "Hide Not Thou, Thy Face."
 "Call to Remembrance" *William Mundy*—died 1591
 "O Lord, The Maker of All Things." *Orlando Gibbons*—1583-1625
 "Almighty and Everlasting God."
 "Drop, Drop, Slow Tears" ... *Palestrina*—1524-1594
 "O Bone Jesu."
 "Come, Holy Ghost" *Vittoria*—1540-1608
 "Jesu dulcis memoria."
 "Of the Glorious Body Telling." *Eccard*—1553-1611.
 "The Presentation of Christ in the Temple."
 Psalm No. 134 (Scottish Psalter 1564) (Tune: "Old 134th").
 10.0.—WEATHER FORECAST and NEWS. *S.B. from London.* Local News.
 10.15.—DE GROOT and THE PICCADILLY ORCHESTRA. *S.B. from London.*
 10.30.—Close down.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

EVENTS OF THE WEEK.

SUNDAY, February 15th.

LONDON and "5XX," 3.0.—Star Ballad Concert. *S.B. to other Stations.*
 LONDON and "5XX," 9.0.—De Groot and the Piccadilly Orchestra. *S.B. to other Stations.*
 BOURNEMOUTH, 3.0.—Russian Symphony Concert.
 MANCHESTER, 3.0.—Sonata Recital: Solos and Songs.
 NEWCASTLE and "5XX," 8.30.—Byrd's Great Service by the Newcastle Bach Choir. Address by the Very Rev. the DEAN OF DURHAM.
 GLASGOW, 9.0.—Recital of 16th Century Church Music.
 LIVERPOOL, 9.0.—Operatic Evening by the British National Opera Company.

MONDAY, February 16th.

NEWCASTLE, 7.30.—Music and Comedy: A Scene from "The School for Scandal" (Sheridan).
 GLASGOW, 7.30.—Choral and Orchestral Evening.

TUESDAY, February 17th.

"5XX," 7.30.—Operatic Programme.
 LONDON, 7.30.—Musical Comedy Excerpts. *S.B. to all Stations.*
 BELFAST, 8.0.—Belfast Postmen's 13th Concert, relayed from the Ulster Hall.

WEDNESDAY, February 18th.

LONDON and "5XX," 7.30.—"From the Mystic East."
 BIRMINGHAM, 7.30.—The Band of 2nd Batt. The East Yorkshire Regiment.
 CARDIFF, 7.30.—The Music of Edward German.
 MANCHESTER, 7.30.—Operatic.
 NEWCASTLE, 8.30.—Violin and Piano-forte Recital.
 ABERDEEN, 7.30.—Choral and Orchestral Evening.
 BELFAST, 7.30.—Symphony Concert.

NOTTINGHAM, 7.30.—The Nottingham City Orchestra.

THURSDAY, February 19th.

"5XX" 9.0. LONDON | Pianoforte Recital and "5XX" 10.0. | by SAPELNKOFF
 "5XX," 7.35.—Music relayed from The New Prince's Restaurant.
 LONDON, 7.35.—Chamber Music Evening. *S.B. to other Stations.*
 BOURNEMOUTH, 7.35.—Musical Appreciation: 1st Night.
 MANCHESTER, 7.35.—Vocal and Instrumental Hour.
 GLASGOW, 7.35.—Spanish Scenes.

FRIDAY, February 20th.

LONDON and "5XX," 8.25 (approx.).—Speeches at the Civil Service Dinner, relayed from the Connaught Rooms, Holborn Restaurant, London. *S.B. to other Stations.*
 BIRMINGHAM, 8.15.—Speech by the Rt. Hon. The Earl of Birkenhead, K.C., relayed from the Chamber of Commerce Banquet.
 BOURNEMOUTH, 7.30.—Musical Appreciation—Second Night.
 CARDIFF, 7.30.—"The Charm of Variety."
 MANCHESTER, 7.30.—Concert in Aid of the Lord Mayor's Unemployment Fund, relayed from the Free Trade Hall.
 NEWCASTLE, 7.30.—"From the Cotton Fields."

SATURDAY, February 21st.

LONDON, 7.30.—Band of H.M. Scots Guards.
 BIRMINGHAM, and "5XX," 7.30.—A Nigger Minstrel Programme.
 MANCHESTER, 7.30.—Pantomime, "Cinderella."
 ABERDEEN, 7.55.—Violin and Piano-forte Recital.
 ABERDEEN, 8.35.—A One-Act Farce, "The Cure."

WIRELESS PROGRAMME—MONDAY (Feb. 16th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2LO LONDON. 365 M.

3.15-3.45.—Transmission to Schools. Mr. GEOFFREY SHAW on "Music."

4.0-5.0.—Time Signal from Greenwich. "Vogues and Vanities," by Carmen of Cockaigne. Music performed during Afternoon Tea at the Trocadero Restaurant. "Home Cooking and Its National Importance," by C. Herman Senn, M.B.E.

5.30-6.15.—CHILDREN'S CORNER: "Pussy's Problem," from "Bo-Peep." "Animals I Have Met: (2) The Wolverine," told by Capt. H. G. Mansfield.

6.40-6.55.—Mr. C. W. J. UNWIN: "Sweet Peas."

7.0.—TIME SIGNAL FROM BIG BEN. WEATHER FORECAST and 1ST GENERAL NEWS BULLETIN. *S.B. to all Stations.*

Prof. J. E. G. DE MONTMORENCY: "The Law of the Household." *S.B. to all Stations.*

Local News.

The Roosters' Mixed Grill.

"THE ROOSTERS":

ARTHUR MACKNESS (Tenor).
SEPTIMUS HUNT (Baritone).
PERCY MERRIMAN (Entertainer).
WILLIAM MACK (Humorous Entertainer).
GEORGE WESTERN (Pianist and Entertainer).

And

THE WIRELESS ORCHESTRA.

Conducted by DAN GODFREY, Junr.

7.30. The Orchestra.
Selection, "The Peep Show" ... *Wylie-Tate*
The Roosters.

A Morsel of Vaudeville—snatched, in part, from the "Grand Seemfunny Concert," and containing certain new items.

A Ragout of Army Reminiscences.
"Battalion Orders" ... *George Western*
"The S-kit Inspection" ... *Percy Merriman*
Interspersed with Old Army Airs by the Orchestra.

A Lift from "A Day in the Country."
"At the Fair" ... *William Mack*
A Touch of Grand Guignol:
"The Frozen Tadpole,"

or

"The Clutching Toothpick."

Percy Merriman

(Incidental Music supplied by Dan Godfrey, Junr.)

"An Old-Time Nigger Entertainment"
Percy Merriman and William Mack

9.30.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and 2ND GENERAL NEWS BULLETIN. *S.B. to all Stations except Bournemouth.*

Topical Talk.

Local News.

10.0. The Orchestra.
Selection, "A Waltz Dream" *Oscar Straus*
Amy Gwinnett at the Piano.

The Orchestra.

"Czardas" ... *Michiel*

10.30.—Close down.

5IT BIRMINGHAM. 475 M.

3.30-4.30.—The Station Wind Quintet. Madeline Darall (Soprano). Kathleen Howell (Dramatic Recital).

5.0-5.30.—WOMEN'S CORNER: Sidney Rogers, F.R.H.S.: "The Cultivation of Early Potatoes." Marjorie Palmer (Soprano).

5.30-6.30.—CHILDREN'S CORNER.

6.30-6.45.—Teens' Corner: Norman E. L. Guest, B.A.: "History Talk: (7) Miracle and Mystery Plays."

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Prof. J. E. G. DE MONTMORENCY. *S.B. from London.*

Local News.

A Varied Programme.

THE STATION ORCHESTRA.

JOSEPH YATES (Baritone).

JANET JOYE (Songs at the Piano).

RICHARD MERRIMAN (Solo Cornet).

7.30. The Orchestra.

Military March ... *Schubert*

Valse, "Club Dances" ... *Gung'l*

Janet Joye.

"Dusky Maid" ... *Vere Smith*

"Hello, Martha" ... *Vere Smith*

"Jumpers" ... *Lohr*

Richard Merriman.

"The Lizzie Polka" ... *John Hartmann*

The Orchestra.

Modern Suite ... *Rosse*

In a Country Garden; Nocturne; Humoresque.

8.15. Joseph Yates.

A Short Lecture-Recital on "The Poet's Life" ... *Schumann*

8.40. The Orchestra.

Entr'acte, "Amina" ... *Lincke*

Fantasia, "Romeo and Juliet" ... *Gounod-Tavan*

9.0. Janet Joye.

"Dog" ... *Harold Muir*

"A Fantasia" ... *Crosbie Garston*

The Orchestra.

Love Dance from "Madame Sherry" ... *Hoschna*

Selection of Italian Folk Songs *arr. Langey*

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*

Topical Talk.

Local News.

10.0. The Orchestra.

Suite-Ballet ... *Popy*

Entrée Mazurka; Pizzicati; Valse Lente;

Largo; Final Galop.

Richard Merriman.

"Songs of Araby" ... *Frederick Clay*

The Orchestra.

Selection, "Manon Lescaut" *Puccini-Tavan*

10.30.—Close down.

6BM BOURNEMOUTH. 385 M.

3.45-5.0.—Talk to Women by Mr. R. Hart-Synnot, Bursar of St. John's College, Oxford. The "6BM" Trio; Reginald S. Mouat (Violin), Thomas E. Illingworth (Cello), Arthur Marston (Piano), Arthur Godwin (Baritone).

5.0-6.0.—CHILDREN'S CORNER.

6.0-6.30.—Scholars' Half-hour: "Elizabethan Poor Law Reform," by Mr. G. Guest, B.A., J.P.

6.30-6.45.—Bulletin of the Radio Societies of Bournemouth and Districts.

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Prof. J. E. G. DE MONTMORENCY. *S.B. from London.* Local News.

7.30-8.0.—Interval.

Winter Gardens Night.

THE MUNICIPAL ORCHESTRA:

Conductor: Sir DAN GODFREY.

THE NORCROSS QUARTET.

8.0. Orchestra.

"Two Serbian Dances" ... *Sistek*

"Tragic Overture" ... *Brahms*

"Hebridean Symphony" ... *Granville Bantock (14)*

Quartet.

Musical Jest, "The Meeting of the Waters (Mineral Waters)" ... *J. L. Roedel*

"Lull Me to Sleep, Ye Winds" ... *Kidner*

Interval.

Orchestra.

Suite de Ballet, "Le Cid" ... *Massenet*

J. CRAEN (Solo Oboe).

"Scène Pastorale" ... *Frederic Bongon*

Orchestra.

Suite of English Dances ... *F. H. Cowen (11)*

Quartet.

Negro { "I Got a Home in Dat Rock" ... *arr. Lawrence Brown*

Spirituals { "Who Did Swallow Jonah?" ... *arr. D. Protheros*

Plantation Song, "Way Down Upon the Swanee River" ... *Poster*

Specially arranged for the Norcross Quartet by Martin Van Lennep.

10.0.—WEATHER FORECAST and NEWS. Local News.

10.15. THE ROYAL BATH HOTEL DANCE ORCHESTRA.

Musical Director, DAVID S. LIFF.

Relayed from King's Hall Rooms.

11.0.—Close down.

5WA CARDIFF. 351 M.

3.0-4.0.—Falkman and his Orchestra, relayed from the Capitol Cinema.

4.45-5.15.—"5WA'S" "FIVE O'CLOCKS."

5.15-6.0.—CHILDREN'S CORNER.

6.40-6.55.—Dr. Jas. J. Simpson, M.A., D.Sc., "Romances of Natural History."

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Prof. J. E. G. DE MONTMORENCY

S.B. from London.

Local News.

By Wiry Ways and Wireless Waves.

Another Trip Round the B.B.C. Stations.

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*

Topical Talk.

Local News.

10.0.—By Wiry Ways and Wireless Waves (Continued).

10.30.—Close down.

2ZY MANCHESTER. 375 M.

3.0-3.30. { Music relayed from the Oxford Picture Theatre. (Conductor, S.

4.0-4.30. { Spurgin.)

3.30-4.0.—Broadcast to Secondary Schools (Seniors): Mr. Edward Cressy on "Little Drops of Water, and Little Grains of Sand" (1).

4.30-5.0.—WOMEN'S HALF-HOUR: Alice Reddish Lloyd (Soprano).

5.0-6.0.—CHILDREN'S CORNER.

6.30-6.55.—J. F. Russell, "Musical Appreciation" (7).

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Prof. J. E. G. DE MONTMORENCY, *S.B. from London.*

Local News.

Light Music and a Play.

BEATRICE EVELINE (Solo Violoncello).

JOHN BUCKLEY (Baritone).

THE "2ZY" MERMAID CLUB.

THE "2ZY" ORCHESTRA.

7.30. Orchestra.

March, "Entry of the Gladiators" *Fucik*

Overture, "Plymouth Hoe" ... *Ansell*

"Dances Miniature de Ballet" ... *Ansell*

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

WIRELESS PROGRAMME—MONDAY (Feb. 16th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

John Buckley.
 "Love's Rival Has Stolen My True Love"
arr. Broadwood
 "Kitty, My Love, Will You Marry Me?"
arr. Hughes
 "The Pretty Creature" ... *arr. Lane Wilson*
 Beatrice Eveline.
 Old Irish Air, "The Snowy Breasted Pearl"
arr. O'Connor Morris
 "Idylle" ... *Ethel Barnes*
 "Mary of Argyle" ... *arr. W. H. Squire (1)*
 "Rondo" ... *Boccherini*
 Orchestra.
 Selection, "The Glory of Russia" ... *Krein*
 "Danse Grotesque" ... *Beresford*
 "Russian Dance" ... *Berger*
 John Buckley.
 "Eleanore" ... *Coleridge-Taylor (11)*
 "Roundabouts and Swings"
Geoffrey Shaw (2)
 "Border Ballad" ... *Coven (1)*
 Beatrice Eveline.
 Meditation from "Thais" ... *Massenet*
 "Rustic Dance" ... *Squire*
 "Old Welsh Lullaby" ... *arr. H. Scott*
 "Vito" ... *Popper*
 Orchestra.
 Waltz, "Rock-a-Bye, My Baby Blues"
Hill and Yoell (31)
 Fox-trot, "Oh, Eva!" ... *Harry Warren (31)*
 (By Request.)

9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Topical Talk.
 Local News.
 10.0. Mermaid Club.
 "ST. SIMEON STYLITES."
 A Play by F. Staden Smith.
 10.30.—Close down.

5NO NEWCASTLE. 400M.
 3.45-5.15.—Lily Adams (Contralto). Tom Heenan (Tenor). Charles Nairn (Trombone). Weekly News Letter. London Papers.
 5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.20.—Scholars' Half-Hour: The Rev. A. H. Robins, "The Past in the Present—Our Homes."
 6.35-6.50.—Farmers' Corner: Mr. R. W. Wheldon, "Results of Experiments—1."
 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Prof. J. E. G. DE MONTMORENCY. *S.B. from London.*
 Local News.

Music and Comedy.

CONSTANCE WENTWORTH (Soprano).
 FREDERIC LAKE (Tenor).
 THE STATION ORCHESTRA:
 Conductor: EDWARD CLARK.
 7.30. Orchestra.
 Overture, "Queen for a Day" ... *Adam*
 7.50. Constance Wentworth.
 Santuzza's Ballad ("Cavalleria Rusticana")
Mascagni
 "The Songs My Mother Sang"
Grimshaw (1)
 "Wonderful Garden of Love" ... *Russell*
 8.5. Frederic Lake.
 "Onaway, Awake, Beloved"
Coleridge-Taylor (11)
 "Ailsa Mine" ... *Newton (1)*
 "Passing By" ... *Purcell*
 8.15. Orchestra.
 Selection, "The Valkyrie" *Wagner-Tavan*
 8.25. Constance Wentworth and Frederic Lake.
 "A Night in Venice" ... *Lucantonio*
 "O No, John" ... *Traditional (11)*
 "Sweet Nightingale" ... *Traditional*
 8.35. Orchestra.
 Popular Songs ... *Past*

8.45. Constance Wentworth and Frederic Lake.
 "Miserere Scene" ("Il Trovatore") *Verdi*
 "Maying" ... *Smith*
 "The Keys of Heaven" ... *Traditional (11)*
 9.0. THE "5NO" REPERTORY COMPANY
 in
 THE SCREEN SCENE
 from
 "THE SCHOOL FOR SCANDAL"
 (Richard Brinsley Sheridan).
 Preceded by
 Prologue written by David Garrick.
Cast:
 Joseph Surface ... FRED PATTERSON
 Servant ... KENDREW MILSON
 Lady Teazle ... OLIVE ZALVA
 Sir Peter Teazle ... LEE DIXON
 Charles Surface ... KENDREW MILSON
 Produced by LEE DIXON.

9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Topical Talk.
 Local News.
 10.0. Orchestra.
 Overture, "Fidelio" ... *Beethoven*
 "Peer Gynt" Suite ... *Grieg*
 10.30.—Close down.

2BD ABERDEEN. 495 M.
 3.30-5.0.—The Wireless Dance Orchestra.
 Feminine Topics.
 5.30-6.0.—CHILDREN'S CORNER: "What the Grain of Rice Said."
 6.15-6.30.—Girl Guides' News Bulletin: Talk by the County Secretary, Miss Cromar.
 6.40-6.55.—Boy Scouts' News Bulletin: Talk by Patrol Leader A. M. Burns (23rd Troop) on "The Patrol from a Patrol Leader's View-point."
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Prof. J. E. G. DE MONTMORENCY. *S.B. from London.*
 Local News.

Popular Evening.

MARGARET MILNE (Soprano).
 CONNIE AND SISSIE DUNCAN (Duettists).
 JAMES SHARP (Tenor).
 THE WIRELESS ORCHESTRA.
 7.30. Orchestra.
 Selection, "San Toy" ... *S. Jones*
 7.45. Margaret Milne.
 "If I Might Only Come to You"
Squire (1)
 "Melisande in the Wood" ... *Goetz*
 7.55. Connie and Sissie Duncan.
 "Memory Lane" ... *Conrad*
 "Are you Going to Dance?" ... *Lehar (19)*
 "All Alone" ... *Berlin (16)*
 8.5. James Sharp.
 "The Garden of Urmia" ... } *Easthope*
 "The Crimson Rose" ... } *Martin*
 "Osarana Mine" ... }
 8.15. Orchestra.
 Selection, "Tangled Tunes" ... *Ketilbey*
 8.30. Margaret Milne.
 "Somewhere a Voice is Calling" ... *Tate (8)*
 "Lang, Lang Syne" ... *Inglis*
 8.40. Connie and Sissie Duncan.
 "Half-Past Two" ... *Monckton*
 "Sympathy" ... *Friml*
 "The Kingdom I'll Build For You"
Novello
 8.50. James Sharp.
 "Who Goes By?" ... } *Easthope*
 "A Far Off Tide" ... } *Martin*
 "Well-a-Day" ... }
 9.0. Orchestra.
 "By the Swanee River" ... *Myddleton*
 Concert Valse, "The Merry Widow"
Lehar
 March, "The Night Patrol" ... *Martell*

9.15. Connie and Sissie Duncan.
 "Two Little Chicks" ... *Monckton*
 "Dougal" ... *Clarke*
 "Take Me Up to the Highlands" *Lonsdale*
 9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Mr. GEORGE MACDONALD. *S.B. from Edinburgh.*
 Local News.
 10.0. Margaret Milne.
 "Danny Boy" ... *Weatherly (1)*
 "We'd Better Bide a Wee" ... *Claribel*
 10.10. James Sharp.
 "At Dawning" ... *Cadman (1)*
 "I Heard You Singing" ... *Coates*
 10.20. Orchestra.
 "Reminiscences of Verdi" ... *Godfrey*
 10.30.—Close down.

5SC GLASGOW. 420 M.
 3.30-4.50.—The Wireless Quartet. Robert F. Johnston (Tenor). Afternoon Topics.
 5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.5.—Weather Forecast for Farmers.
 6.40-6.55.—R. Buckeridge: Topical Talk.
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Prof. J. E. G. DE MONTMORENCY. *S.B. from London.*
 Local News.

Choral and Orchestral.

THE STATION CHOIR AND ORCHESTRA:
 Conducted by
 HERBERT A. CARRUTHERS.
 HARRY BRINDLE (Bass-Baritone).
S.B. to Edinburgh and Dundee.
 7.30. Orchestra.
 Musical Comedy Selections {
 "A Country Girl" ... *Monckton*
 "The Whirligig" ... *Chappelle*
 8.0. Harry Brindle.
 "She Alone Charmeth My Sadness"
 ("The Queen of Sheba") ... *Gounod*
 (With Orchestral Accompaniment.)
 "Life" ... *Blumenthal (1)*
 "Old Clothes and Fine Clothes"
Martin Shaw
 8.15. Orchestra.
 Musical Comedy Selection, "Half Past Eight" ... *Rubens*
 8.30. Choral Work for Choir and Orchestra.
 "Blest Pair of Sirens" ... *Parry (11)*
 Orchestra.
 Musical Comedy Selection, "The Girl on the Film" ... *Kollo*
 9.10. Choral Work for Choir and Orchestra.
 "From the Bavarian Highlands"
Elgar (15)
 "The Dance"; "False Love"; "Lullaby"; "Aspiration"; "On the Alm";
 "The Marksman."
 9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Mr. GEORGE MACDONALD. *S.B. from Edinburgh.*
 Local News.
 10.0. Harry Brindle.
 Prologue, "Pagliacci" ... *Leoncavallo*
 (With Orchestral Accompaniment.)
 "Drink to Me" ... *W. A. F.*
 "When Dull Care" ... *arr. Lane Wilson (1)*
 10.10. Orchestra.
 Musical Comedy Selection, "A Night Out"
Redstone (6)
 March, "Gallant Serbia" ... *Lotter*
 10.30.—Close down.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

Continental Broadcasting.

Owing to frequent changes of wave-length and times of transmission, absolute accuracy cannot be guaranteed, but each time we go to press with this list it will be carefully checked with the latest available information. The times given are according to Greenwich Mean Time.

FRANCE.
EIFFEL TOWER (EL)—Paris, 2,600 m.
 Daily: 6.40 a.m., Weather (exc. Sun.); 11.0, Markets (exc. Sun. and Mon.); 11.15, Time Sig., Weather; 2.45, 3.35, 4.30 * p.m., Stock Exch. (exc. Sun. and Mon.); 6 p.m., Con., News; 6.45 p.m., Paris Fashions, (in English)—temp.—(Wed. and Sat.)—7 p.m., 10.10, Weather (exc. Sun.). * On 1st and 15th of each month at 4.45 p.m.; 8.30 p.m., Con. relayed from PTT (Fri.).
RADIO-PARIS (SPR)—Paris, 1,780 m.
 Sundays: 12.45 p.m., Orch.; 1.45, News; 4.45, Con.; 8.30 p.m., News; 9 p.m., Dance.
 Weekdays: 12.30 p.m., News, Stock Exch., Orch.; 4.30, Markets, Con.; 5.45, Stock Exch., News, Women's Hour; 8.30, Lec., News, Con.; 9 p.m., Dance (Thu.). *Le Matin*, Paris, provides a special Con. every 2nd and 4th Sat. in each month, at 9 or 10 p.m. (SPR frequently relays 5XX after 10 p.m.)
ECOLE SUP. DES POSTES ET TELEGRAPHES (PTT)—Paris, 458 m.
 2 p.m., Lec. relayed from Sorbonne University (Thu.); 3 p.m., Outside relay (Sat. irreg.); 3.45 and 5 p.m., Sorbonne Lec. relayed (Wed.); 4 p.m., Outside relay (irreg.); 8 p.m., English Talk (Tue.); 8.30, Lec. or Con. (almost daily), Con. relayed by EL on 2,600 m. (Fri.); 8.45 p.m., Lec. (Sun.); Organ Recital on 3rd Sun. each month; 9.30 p.m., Con. (Sun.).
"PETIT PARISIEN"—Paris, 345 m.
 9.30 p.m., Con. (Tue., Thu., Sun.), Dance (Sat.).
RADIO-LYON—287 m.
 12.0, 5.15 p.m., 8.30 p.m., News, Con. (irreg.).
TOULOUSE AERODROME (MKD)—1,525 m.
 9.42 a.m. and 7.42 p.m., Weather (daily).
STATION DU PIC-DU-MIDI—350 m.
 Testing.
LYON-LA DOUA—550 m.
 10.30 a.m., Gramophone Con., News, Stock Exch. (irreg.).

GERMANY.
DRESDEN (Relay Station)—280 m. From Leipzig.
CASSEL (Relay Station)—292 m. From Frankfurt.
HANOVER (Relay Station)—296 m. From Hamburg.
BREMEN (Relay Station)—350 m. From Hamburg.
NURKEMBERG (Relay Station)—340 m. From Munich.
GLEIWITZ (Upper Silesia) (Relay Station)—Under construction.
HAMBURG—395 m.
 Sundays: 7.55 a.m., Time Sig., Weather, News, Lec.; 10.0, Sacred Con., Chess; 12.0, Con., Lec.; 4 p.m., Children; 5 p.m., Con.; 6 p.m., English; 7 p.m., Con. or Opera, Sport, Weather, News; 9 p.m. onwards, as Weekdays.
 Weekdays: 6.25 a.m., Time Sig., News, Weather; 7.30, Theatre News; 11.55, Time Sig., 12.10, English, (Wed.); 2 p.m., Political News, Markets; 3 p.m., Women; 3.30, Lec., Esperanto; 4.5, Lec., Markets; 5 p.m., Con., Lec.; 6.25 p.m., Lec., English (Tue. and Fri.); Spanish (Mon. and Thu.); 7 p.m., Weather, Con. or Opera; 9.0 p.m., Weather, Markets, Sport; 9.50 p.m., News (in English), Dance (daily, exc. Sun.).
MUNSTER—410 m.
 11 a.m., Sacred Con. (Sun.), News; 11.30 (weekdays); 11.55, Time Sig.; 2.30 p.m., Markets; 3.30 p.m., Children (Sun.); Lec. (weekdays); 6.40 p.m., Weather Time Sig., Lec.; 7.25, Women, Con. or Opera; Dance (Sat.); 9 p.m., English, Esperanto or Spanish News; Dance (Sat.).
DRESLAU—418 m.
 10.15 a.m., Stock Exch., Weather; 11.0, Factory Con. (weekdays); Sacred Con. (Sun.); 11.55, Time Sig. (Sun.); Weather, Stock Exch.; 2 p.m., News (weekdays); 3 p.m., Children (Sun.); 4 p.m., Lec., Orch., Children (Fri.); 4.45, Con. (Sun.); 5 p.m., Shorthand (Sat.); Mah-Jongg (Wed.); 6 p.m., Esperanto (Mon.), English (Thu.), Shorthand (Wed.), Lec. (other days); 7.30 p.m., Con., Weather, Time Sig.; 8.30 p.m., Dance (Sun.), 9.15 p.m. (Mon.).
BERLIN (II)—503 m.
 8 a.m., Sacred Con. (Sun.); 9 a.m., Markets, News, Weather; 10 a.m., Factory Con. and Tests; 10.30, Educat. Hour (Sun.); 11.15, Stock Exch.; 12.0, Time Sig., News, Weather; 1.15 p.m., Stock Exch., 2 p.m., Educ. Lec. (Sun.); Markets (weekdays); 2.30, Children (Sun., Wed.); 3 p.m., Esperanto (Sat.); 3.30, Orch., French (Tue.); 5.30, Lec.; Women; 6 p.m., French Lesson (Mon.), Lec. (Tue.); 6.30, Lec.; English (Thu.); 7.0, Theatrical News (Tue.); 7.30, If Opera, usually at 6.30 p.m.; Con., Weather, News, Time Sig.; 9.30, Chess (Mon.); Dance until 11 p.m. (Thu., Sat., Sun.).
TELEFUNKEN—290 m.—Testing.
STUTTGART—443 m.
 6.30 a.m., Time Sig., Weather (weekdays); 10.30, Con. (Sun.); 3 p.m., Time Sig., Con., News (Sun.); Children (Sat.); 4.45 p.m., Children (Wed.); 6.30 p.m., Lec. (weekdays); 7 p.m., Con. (daily); 8.15 p.m., Time Sig.; 10 p.m., Weather, News, Dance (Sun.).
LEIPZIG—454 m.
 7.30 a.m., Sacred Con.; 10 a.m., Educat. Hour (Sun.); 10.55, Markets, Orch., Time Sig.; 3 p.m., Markets; 3.30, Orch., Children (Wed.); 4.30, Lec. (Tue.); 5.30, Lec. (Tue.); Experimenters (Wed., Sat.); 6 p.m., Lec.; 7.15 p.m., Con., Weather, News; 9 p.m., Con. (not daily).
KOENIGSBERG—463 m.
 8 a.m., Sacred Con. (Sun.); 10.15, Markets; 11.55, Time Sig., Weather; 1.15 and 3 p.m., Markets; 3.30, Children (Tue., Wed., Sat.), Orch.; 6.30 p.m., Lec., Esperanto (Thu., Sat.); 7 p.m., Con. or Opera; 8 p.m., Orch. or Lec., News, Dance (Thu., Sun.).
FRANKFORT-ON-MAIN—470 m.
 7.30 a.m., Sacred Con. (Sun.); 10.10, Stock Exch.; 10.55, Time Sig., News; 3 p.m., Children (Sun.); Markets (weekdays); 3.30, Con., Women; 4 p.m., Con. (Sun.); 5 p.m., Markets, Lec., Children (Wed.);

6 p.m., Lec. (daily), Shorthand (Wed.), Esperanto (Fri.); 6.30, Educat. Hour; 7 p.m., Lec., English (Mon.); 7.30, Con. (daily), Jazz Band (Fri.); 8.30 p.m., Time Sig., Weather, News, Con., Dance or late Con. (not daily).
MUNICH—485 m.
 10.30 a.m., Lec. (Sun.), Con.; 1 p.m., News, Weather, Time Sig., Snow Forecast; 2 p.m., Con. (Sun.); 3 p.m., Lec. (Sun.); 3.30, Orch. (weekdays); 4 p.m., Orch. (Sun.), Children (Wed.); 5 p.m., Agricultural Talks (Mon.); 5.30, Con.; 6 p.m., Lec., English Lesson (Mon. and Fri.), Italian (Tue.), Esperanto (Thu.), Russian (Sat.); 7.30, Con. (daily); 8.30, News, Weather, Time Sig.; 9 p.m., late Con. (Sun.), Lec. (Tue.), Dance (Sat.).
KOENIGSWUSTERHAUSEN (LP)—Near Berlin.
 2.450 m. 6.30 a.m. to 7.40 p.m., Wolff's Press News. (At the end of each transmission announcer states time of next call.)
 2.800 m. 10.30 a.m., Con. (Sun.), Esperanto, Lec.
 4.000 m. 6 a.m. to 8 p.m., News Service.
 Eberswalde (Berlin) 280 m. 9.15 p.m., (Con. Mon.).
 3.150 m. 6.45 a.m. to 6.45 p.m., News.
NORDDEICH (KAV)—1,800 m.
 10.25 a.m. and 9.45 p.m., Weather Forecast.

AUSTRIA.
VIENNA (RADIO WIEN)—530 m.
 Daily: 8 a.m., Markets; 10, Con.; 12.5 p.m., Time Sig.; 12.20, Weather; 2.30, Stock Exch.; 3 p.m., News, Con.; 3.10, Children (Wed.); 5.10 p.m., Lec. (Thu., Fri., Sat.); Children (Tue.); 5.30, Lec. (Wed.) 6.30, News, Weather, Snow Forecast (Fri., Sat.); 7 p.m., Time Sig., Con., News; 9 p.m., Dance (Wed., Sat.).
GRAZ (Relay Station)—700 m. From Vienna. Testing.
INNSBRUCK (Relay Station)—Under construction.

BELGIUM.
BRUSSELS (SBR)—265 m.
 Daily: 5 p.m., Orch., Children (Wed. and Thu.); Dance (Tue. and Sat.); 6 p.m., News; 8 p.m., Lec.; 8.15, News, Con.; 10 p.m., News.
HAAREN (BAV)—1,100 m.
 Weekdays: 1 p.m., 2 p.m., 4.50 and 6.50 p.m., Weather.

CZECHO-SLOVAKIA.
KBELY (OKP)—1,160 m.
 Weekdays: 10.30 a.m., 12, 12.45 p.m., Stock Exch.; 4 p.m., Con. (Wed., Sat.); 6.30 p.m., Lec., News, Weather, Con. (Time Sig., 7 p.m.) daily; 10 a.m., Con. (Sun.).
KOMAROV (OKB)—1,800 m.
 1 p.m., Stock Exch., Weather, News (weekdays); 5.30, Con. (Thu.); 9 a.m., Con. (Sun.).
STRASNICE (Straschnitz)—430 m. Testing shortly.

DENMARK.
COPENHAGEN (Kjobenhavns Radionstation)—470 m.
 7 p.m., Con. (Sun., Wed., Thu.). Also tests on 750-800 m., 8 p.m., daily. Wave length not fixed def.
LYNGBY (OKE)—2,400 m.
 Weekdays: 6.20 p.m., 8 and 9 p.m., News, Weather, Time.
RYVANG—1,025 m.
 6.30 p.m., Eng. Lesson (Wed.); 7 p.m., Con. (Tue., Fri.).

HOLLAND.
AMSTERDAM (PCFF)—2,600 m.
 Daily: 7.55 * a.m. to 4.10 p.m., News, Stock Exch., Time Sig. (9.55 a.m. and 4.10 p.m.). * Exc. Mon. and Sat. (10.10-11.10).
AMSTERDAM (PXX)—1,050 m.
 8.40 p.m., Con. or Organ Recit. (Mon.).
HILVERSUM (HDO)—1,050 m.
 5.40 p.m., Children (Mon.); 7.40 p.m., Relay of Amste-

dam Orchestra (Thu.); Lec. (Wed. and Fri., irreg.); 8.40 p.m., Lec. and Con. (Fri.); 7.40 p.m., Con. (Sun.); 9.40, Lec. (Sun.).
VOSSEGLAT (B6)—1,050 m.
 12.10 and 7.40, Weather.
SOESTERBERG—1,050 m.
 7.20 p.m., Weather.
BLOEMENDAAL—Abt. 200 m.
 9.40 a.m. and 4.40 p.m., Sacred Service (Sun.).

HUNGARY.
BUDA-PESTH (MTI)—950 m.
 Half hourly from 6.45 a.m., News, Stock Exch.; 10 a.m., Con. (daily); 11.30, News.

ITALY.
ROME (IRO)—425 m.
 7.30 and 8.20 a.m., News; 4 p.m., Orch.; 7.35 p.m., News, Con.; 8.15 p.m., Lec., Con.; 9 p.m., Dance (not daily).
ROME (Radioradio)—624 m.
 10.30 a.m., News; 11.0, Time Sig., Con.; 2.20 p.m., Stock Exch.; 7 p.m., Con.
CENTOCILLE (ICD)—1,800 m.
 3 and 7.30 p.m., News, Con. (irreg.).

JUGO-SLAVIA.
BELGRADE—1,650 m.
 5.30 p.m., Con., News, Weather (Tue., Thu., Sat.); Weather, News only (Mon. Wed., Fri.).

NORWAY.
CHRISTIANIA (OSLO)—340 m. (wave length not definitely fixed).
 About 7.30 p.m., almost daily Tests.

PORTUGAL.
LISBON (Aero-Lisboa)—375-410 m.
 8.30 p.m., Tests (irreg.).
MONSANTO (CTV)—2,450 m.
 Tests (irreg.). 1.0 and 11 p.m., Weather.

RUSSIA.
MOSCOW—1,500 m. (temporary).
 Weekdays: 2 p.m., Markets; 4.30 p.m., News and/or Con. (Note: Times are not always adhered to.)
 Sundays: 1.45 p.m., Lec.; 4.30 p.m., News; 5.15 p.m., Con.

SPAIN.
MADRID (RI)—302 m.
 Daily: 9 p.m., Weather, Stock Exch., Time Sig., Con., News; 10 p.m., *La Libertad* Con. (Tue. and Fri.).
 Sundays: 4.30 p.m., Con. (irreg.).
BARCELONA (Radio Barcelona) (BAII)—325 m.
 5.30 or 6 p.m., Lec., Stock Exch., Markets, Con. or relay of Opera; 8.30 p.m., News and Con.
SEVILLE (HAJ5)—350 m.
 6.30 p.m., Con., Weather; 7 p.m., Time Sig., Lec. (irreg.), Con., News; 7.45 p.m., Con.

SWEDEN.
STOCKHOLM (SASA)—430 m.
 Sundays: 9.55 a.m., Sacred Service; 4 p.m., Children; 5 p.m., Sacred Service; 7 p.m., Con.; 8.30 p.m., News, Weather.
 Weekdays: 11.30 a.m., Weather, Stock Exch., Time Sig. (11.55); 6 p.m., Lec. (irreg.); 7 p.m., Con., Lec., News, Weather.
GOTHENBURG (SASE)—290 m. and 700 m.
 10 a.m., Fishery Reports (on 700 m.); 11.55, Time Sig.; 7 p.m., * Programme S.B. from Stockholm.
MALMOE (SASC)—270 m.
 11 a.m., Weather; 7 p.m., * Programme S.B. from Stockholm.
BODEN (SASE)—2,500 m.
 6 p.m., Con. (Tue., Fri., Sun.), temp.
 * Local programmes are also broadcast at times.
SUNDSVALL (SASD)—680 m. Testing shortly.

SWITZERLAND.
ZURICH (Höngg)—650 m. Wave length not definitely fixed. Occasionally on 515 m.
 Weekdays: 11 a.m., Weather; 11.55, Time Sig., Weather, News, Stock Exch.; 3 p.m., Con.; 5.15 p.m., Children (Mon., Wed., Fri.); 6 p.m., Weather, News; 7.15 p.m., Lec., Con., Dance (Fri.); 9 p.m., News.
 Sundays: 3 and 7.15 p.m., Con., News, Weather.
GENEVA (HBI)—1,100 m.
 Daily: 12.15, Lec. (exc. Sun.).
LAUSANNE (HB2)—850 m.
 Weekdays: 7.5 a.m., 12.30 p.m., Weather, Markets, Time Sig., News; 4 p.m., Children (Wed.); 5.55, Weather, News; 7 or 7.15 p.m., Con. or Lec. (daily), Dance (Thu. and Sat.).

PRINCIPAL AUSTRALIAN BROADCAST STATIONS.
SYDNEY (2BL)—350 m.
 (2FC)—1,100 m.
PERTH (6WF)—1,250 m.
MELBOURNE (3LO)—1,720 m.

AFRICAN STATIONS.
CAPE TOWN (WAMG)—375 m. (from 1630 G.M.T.).
JOHANNESBURG (JB)—450 m. (from 1630 G.M.T.).
DURBAN—400 m.
WALFISCH BAY—600 m.
SLANG KOP—630 m.

PRINCIPAL U.S.A. AND CANADIAN BROADCAST STATIONS.
KGO—312 m. Oakland, Cal.
EDKA—326 m. East Pittsburg, Pa.
WBZ—337 m. Springfield, Mass.
WGY—380 m. Schenectady, N.Y.
WJY—405 m. New York City.
CKAC—425 m. Montreal, Can.
CFAC—430 m. Calgary, Can.
CNRA—313 m. Moncton, New Brunswick.
WJZ—455 m. New York City.
WEAF—492 m. New York City.

B.B.C. STATION ADDRESSES.

MAIN.	
Addresses.	Telephone No.
ABERDEEN	17, Belmont Street 2295
BELFAST	31, Linenhall Street, Belfast.
BIRMINGHAM	105, New Street 209
BOURNEMOUTH	72, Holdenhurst Road ... 3460
CARDIFF	38, Park Place..... 2514-5
GLASGOW	71, Blythswood Square Douglas 1192
LONDON	2, Savoy Hill, W.C.2. Regent 6730
MANCHESTER	Orme Buildings, The Parsonage City 9648
NEWCASTLE	24, Eldon Square. Central 5865
RELAY.	
EDINBURGH	79, George Street... Central 9595
HULL	26-27, Bishop Lane. Central 6138
LIVERPOOL	85, Lord Street... Bank 5018
PLYMOUTH	Athenaeum Chambers, Athenaeum Lane 2283
SHEFFIELD	Messrs. Union Grinding Wheel, Corporation Street, Central 4029
LEEDS-BRADFORD	Cabinet Chambers, Basinghall Street, Leeds 28131
STOKE-ON-TRENT	Majestic Buildings, Stoke-on-Trent... Hanley 1973
NOTTINGHAM	4, Bridlesmith Gate, Nottingham 8944 and 6945
DUNDEE	1, Lochae Road... Dundee 5209
SWANSEA	Oxford Buildings Oxford Street Swansea 3107

WIRELESS PROGRAMME—TUESDAY (Feb. 17th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2LO LONDON. 365 M.

- 1.0-2.0.—Time Signal from Greenwich. Concert: The "2LO" Trio and Barbara Samuel (Contralto).
- 3.15-3.45.—Transmission to Schools: "The Countryside—A Walk by the River," by Patricia Johnson.
- 4.0-5.0.—Time Signal from Greenwich. Books to Read, by Ann Spice. Organ and Orchestral Music, relayed from Shepherd's Bush Pavilion. "Historical Pictures—(7) Mrs. Pepys," by Alice Cunningham.
- 5.30-6.15.—CHILDREN'S CORNER: "The Dwarf's Hole," by Mannington Sayers. Vivien Lambelet singing "Mother Moon" and some Nursery Rhymes.
- 6.40-6.55.—An Appeal on behalf of Queen Mary's Hospital for the East-End, by Sir LEONARD LYLE.
- 7.0.—TIME SIGNAL FROM BIG BEN. WEATHER FORECAST and 1ST GENERAL NEWS BULLETIN. *S.B. to all Stations.*

JOHN STRACHEY, Literary Criticism. *S.B. to all Stations.*

Local News.

Musical Comedy Excerpts.

S.B. to all Stations.

THE J. H. SQUIRE CELESTE OCTET.
MAYER GORDON (Leader).
FRANK READE (at the Piano).
Under the Direction of J. H. SQUIRE.
MAVIS BENNETT (Soprano).
VICTOR CARNE (Tenor).
WILSON JAMES and PARTNER ("The Wranglers").
JACK DUNCANSON (Recital).

- 7.30. The Octet.
Selection, "The Last Waltz"..... *Straus*
Mavis Bennett.
"The Dancing Lesson" ("The Passing Show")..... *H. Oliver*
"Star of Fate" ("Catherine")
Tchaikovsky

Victor Carne.
"Underneath the Lilac Bough" ("Lilac Time")..... *Schubert-Clutsam*
"The Drinking Song" ("Rose of Persia")
Sullivan

The Octet.

Valse, "The Pink Lady"..... *Caryll*

- 8.0 (approx.). The Wranglers.
In an Original Entertainment.
The Octet.
Selection, "The Naughty Princess"
Cuvillier
Mavis Bennett and Victor Carne.
"Flower Dust" ("Lilac Time")
Schubert-Clutsam
"It is the Month of May" ("Merrie England")..... *German*

- 8.30 (approx.). The Octet.
Valse, "The Cinema Star"..... *Gilbert*
Jack Duncanson.
"The Groom's Story"..... *Conan Doyle*
The Octet.

Selection, "A Princess of Kensington"
German

The Wranglers

Entertain again.

The Octet.

Valse, "The Count of Luxemburg" *Lehar*

- 9.5 (approx.).—From My Window, by "Philomon."
Mavis Bennett.

"O Who Shall Say that Love is Cruel?"
("Merrie England")..... *German*

Bell Song ("Les Cloches de Corneville")
Planquette

Victor Carne.
"Love in My Heart Awakening" ("The Merry Widow")..... *Lehar*
"I Don't Care" ("A Waltz Dream")
Oscar Straus

The Octet.

Love Dance ("Madame Sherry") *Hoschna*
(6)

9.30.—TIME SIGNAL FROM GREENWICH.
WEATHER FORECAST and 2ND
GENERAL NEWS BULLETIN. *S.B.*
to all Stations.

Sir OLIVER LODGE, F.R.S., "The
Magnetic Behaviour of Ether—What
Magnetism is Like and Its Analogies
with Life." *S.B. to all Stations.*

Local News.

10.0.—THE SAVOY ORPHEANS AND
SAVOY HAVANA BAND, relayed from
the Savoy Hotel, London. *S.B. to all
Stations.*

11.0.—Close down.

5IT BIRMINGHAM. 475 M.

- 3.30-4.0.—Lozells Picture House Orchestra.
- 4.0-4.30.—School Transmission: Principal
Alfred Hayes (of the Birmingham
and Midland Institute), English Litera-
ture.
- 5.0-5.30.—WOMEN'S CORNER: E. Dorothea
Barcroft, General Interest Talk.
- 5.30-6.30.—CHILDREN'S CORNER.
- 6.30-6.45.—"Teens' Corner: J. A. Cooper, B.Sc.,
Assoc. I.R.E., "Stepping Stones to
Radio."
- 7.0-11.0.—Programme *S.B. from London.*

6BM BOURNEMOUTH. 385 M.

- 3.45-5.0.—Talk to Women: "London Papers."
Pitt and Marks (Entertainers). Violet
Lee (Soprano). Harman Draper (Rag-
time Pianist).
- 5.0-6.0.—CHILDREN'S CORNER.
- 6.0-6.30.—Scholars' Half-Hour: "How to
Select Pictures," by Walter Hutton.

IMPORTANT TO READERS.

LETTERS FOR THE EDITOR should be
addressed to "The Radio Times," 8-11,
Southampton Street, Strand, W.C.2.

LETTERS FOR THE B.B.C., containing
programme suggestions or criticisms, should be
sent to the Organiser of Programmes, 2, Savoy
Hill, W.C.2.

RATES OF SUBSCRIPTION to "The
Radio Times" (including postage): TWELVE
MONTHS (Foreign), 15s. 8d.; TWELVE MONTHS
(British), 13s. 6d.

"RADIO TIMES" READING CASE.

Messrs. George Newnes, Ltd., have now pre-
pared a handsome case in red cloth with gilt
lettering for "The Radio Times," complete
with cord down the back to hold a copy of this
publication. A pencil is indispensable to the
listener during the course of the programme, and
this is included conveniently in a slot at the side.
Listeners should order this to-day from any
Newsagent. It is published at 2s. 6d., or send 4d.
extra to cover postage for a case from the
Publisher, 8-11, Southampton Street, Strand,
London, W.C.2.

6.30-6.45.—Farmers' Talk: "Commercial Fruit
Growing," by Frank J. Emery.

7.0-11.0.—Programme *S.B. from London.*

5WA CARDIFF. 351 M.

- 3.0-3.30.—Transmission to Schools.
- 3.30-4.0.—The Station Trio.
- 4.0-4.45.—The Carlton Orchestra, relayed from
the Carlton Restaurant.
- 4.45-5.15.—"5WA'S" "FIVE O'CLOCKS."
Mr. Isaac J. Williams, Keeper of Art, The
National Museum of Wales, "Famous
British Painters."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.40-6.55.—Mr. R. T. Evans, B.A., University
of South Wales and Monmouthshire:
Talk.
- 7.0-11.0.—Programme *S.B. from London.*

2ZY MANCHESTER. 375 M.

- 12.30-1.30.—Organ Music by H. Fitzroy Page,
relayed from the Piccadilly Picture
Theatre.
- 3.0-3.30. } Concert by the "2ZY" Quartet.
4.0-4.30. }
- 3.30-4.0.—Broadcast to Schools: Mr. E. Sims
Hilditch, "Musical Appreciation."
- 4.30-5.0.—WOMEN'S HALF-HOUR. Miss
Marie Riefetahl on "A Thing of Beauty."
- 5.0-6.0.—CHILDREN'S CORNER.
- 6.30-6.55.—Local Radio Society Talk.
- 7.0-11.0.—Programme *S.B. from London.*

5NO NEWCASTLE. 400 M.

- 11.30-12.30.—Janet Hitchens (Soprano). Tilley's
Restaurant Orchestra.
- 3.45-5.15.—Mabel Herbert (Contralto) and
Stuart McIntosh (Baritone)—Duets and
Solos. Alfred Seabridge (Solo Violin).
London Papers. The Rev. Herbert
Barnes on "Longfellow."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.40-6.55.—Guy Broun: "Modern Relics of
Barbarism—Laying a Foundation Stone."
- 7.0-11.0.—Programme *S.B. from London.*

2BD ABERDEEN. 495 M.

- 3.30-5.0.—The Wireless Sextet. Isabel Michie
(Soprano). Feminine Topics.
- 5.15-6.0.—CHILDREN'S CORNER: An En-
tertainment arranged by Elmslie Smith.
- 6.40-6.55.—Mr. Arthur Collingwood, F.R.C.O.,
on "Milestones in Music—Beethoven."
- 7.0-11.0.—Programme *S.B. from London.*

5SC GLASGOW. 420 M.

- 3.30-4.50.—The Wireless Quartet. Hannah
Anderson (Soprano). Afternoon Topics.
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.0-6.5.—Weather Forecast for Farmers.
- 7.0-11.0.—Programme *S.B. from London.*

A number against a musical item indicates the name
of its publisher. A key list of publishers will be found on
page 357.

WIRELESS PROGRAMME—WEDNESDAY (Feb. 18th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2LO LONDON. 365 M.

3.15-3.45.—Transmission to Schools: "Theory of Propagation and Reception of Waves," by Mr. H. J. Hinks (Radio Association).

4.0-5.0.—Time Signal from Greenwich. Concert: The "2LO" Trio and Lily Bradford (Soprano). "My Part of the Country," by A. Bonnet Laird. "Sumptuary Laws and Vanity," by Constance M. Foot.

5.30-6.15.—CHILDREN'S CORNER: Music by Uncle Jeff. A Story by Harcourt Williams. "The Tale of Cockalorum," by Christine Chamdler.

6.40-6.55.—Mr. WALTER WOOD, "Deep Sea Trawling."

7.0.—TIME SIGNAL FROM BIG BEN. WEATHER FORECAST and 1ST GENERAL NEWS BULLETIN. *S.B. to all Stations.*

Capt. C. W. R. KNIGHT: "Falconry—The Sport of Kings." *S.B. to all Stations.* Local News.

"From the Mystic East."

DORIS VANE (Soprano).
SYBIL MADEN (Contralto).
LEONARD GOWINGS (Tenor).
ANDREW SHANKS (Bass).
LOUIS HERTEL (Entertainer).

THE WIRELESS ORCHESTRA:
Conducted by DAN GODFREY, Junr.

7.30. The Orchestra.
Overture, "The Caliph of Bagdad"

Boieldieu
Doris Vane.

Aria, "Ovo Fine Day" ("Madame Butterfly")
Leonard Gowings.

Serenade, "Open Thy Window" ("Iris")
Mascagni

7.55 (approx.). The Orchestra.
Japanese Suite *Holst*

8.15 (approx.). The Vocalists with Orchestra.
Song Cycle, "In a Persian Garden"
Liza Lehmann

8.45 (approx.). Louis Hertel.
Mrs. Struggles and Some of her Eastern Friends.

The Orchestra.
Overture, "The Yellow Princess"

Saint-Saens
Andrew Shanks.

"Chinaman's Song" ("Cairo")
Percy Fletcher

"Feast of Lanterns" *Bantock* (4)

9.10. (approx.) Louis Hertel.
Entertaining.

The Orchestra.
Selection, "Chu Chin Chow" *Norton* (31)

9.30.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and 2ND GENERAL NEWS BULLETIN. *S.B. to all Stations.*

British Drama League Lecture Recital: "Some Elizabethan Dramatists." *S.B. to all Stations.*

The Week's Work in the Garden, by the Royal Horticultural Society. *S.B. to other Stations.*

Local News.

10.15. The Orchestra.
Chinese March, "Kwang Hsu" *Lincke*

Selection, "The Geisha" *Sidney Jones*

10.30.—Close down.

5IT BIRMINGHAM. 475 M.

3.30-4.30.—The Station Pianoforte Quintet.

5.0-5.30.—WOMEN'S CORNER: Elsie Osler, "The Women of India." May Martin (Contralto).

5.30-6.30.—CHILDREN'S CORNER.

6.30-6.45.—Teens' Corner: Mr. A. Leal, L.C.P., (of the Birmingham Natural History and Philosophical Society). "Barcelona."

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Capt. C. W. R. KNIGHT. *S.B. from London.*

Local News.

Military Band Programme.

BAND OF 2ND BN.

THE EAST YORKSHIRE REGIMENT. (By kind permission of Lieut.-Col. G. W. Geddes, D.S.O., and Officers.)

Bandmaster, Mr. M. P. FLANNERY.

JOAN MAXWELL (Soprano).

HAROLD HOWES (Baritone).

7.30. The Band.

Overture, "Rosamunde" *Schubert*

"Praeludium" *Jarnefelt*

Harold Howes.

"Invictus" *Bruno Huhn*

"Glorious Devon" *German* (1)

The Band.

Suite, "Ballet Russe" *Luigini*

Allegro Marziale; Valse Lente; Scena; Mazurka; Marche Russe.

Cornet Solo, "O Dry These Tears"

Del Riego

8.15. Joan Maxwell.

"Among the Willows" *Montague Phillips*

"An Old Melody" *Marjorie Broughton* (8)

The Band.

Selection, "Poppy" *Jones*

Harold Howes.

"To-Morrow" *Frederick Keel*

"Song of the Bow" *Florence Aylward*

The Band.

"Turkish Patrol" *Michaelis*

9.0. Joan Maxwell.

"I Listen for You" *Mary Nightingale* (8)

"Gypsy Spring" *Herbert Oliver* (8)

"A Song of Charmion"

Raymond Loughborough (20)

The Band.

Selection, "A Lightning Switch" *Alford*

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*

British Drama League Lecture Recital. *S.B. from London.*

Royal Horticultural Society Talk. *S.B. from London.*

Local News.

10.15. The Band.

Descriptive Fantasia, "A Hunting Scene"

Bucalossi

10.30.—Close down.

6BM BOURNEMOUTH. 385 M.

3.45-5.0.—Talk to Women by Miss Doulton

Edwards. T. E. Illingworth (Cello).

THE ROYAL BATH HOTEL DANCE

ORCHESTRA, relayed from King's Hall

Rooms. Musical Director: DAVID S.

LIFF.

5.0-6.0.—CHILDREN'S CORNER.

6.0-6.30.—Scholars' Half-Hour: "Nature Talk,"

by Hubert Hill.

6.30-6.35.—Station Talk by Bertram Fryer

(Station Director).

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Capt. C. W. R. KNIGHT. *S.B. from London.*

Local News.

Comedies and Music.

THE WIRELESS ORCHESTRA.

Conductor: Capt. W. A. FEATHERSTONE.

BRET HAYDEN (Entertainer).

BOB STOKES (Baritone).

7.30. Orchestra.

Selection, "Coppelia" *Delibes-Walton*

7.45. "THE COLLABORATORS."

A Sketch by Daisy McGeoch.

Characters:

Mary *MURIEL BARKAS*

Reginald *GEORGE STONE*

Produced by

WILLIAM R. KEENE AND GEORGE

STONE.

8.15. Orchestra.

"La Fée Tarapatapoum" *Foulds*

8.20. Bret Hayden.

A Few Remarks.

8.30. Bob Stokes.

"Longshoreman Billy"

"The Admiral's Broom" *Bevan* (3)

8.35. Orchestra.

Selection, "Mirella" *Gounod-Tavan*

8.45. "PAINT AND POVERTY."

A Sketch by H. Salomon.

Characters:

Gerald Arnold (an Artist) E. BYERS

Lucy (his Model) NORMA FLEMING

The Broker's Man GEORGE STONE

Produced by

WILLIAM KEENE AND GEORGE

STONE.

9.15. Bret Hayden.

Further Remarks.

9.20. Bob Stokes.

"The Stoker."

9.25. Orchestra.

Tarantelle, "Napoli" *Mezzacapo*

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*

British Drama League Lecture Recital. *S.B. from London.*

Royal Horticultural Society Talk. *S.B. from London.* Local News.

10.15. Orchestra.

Fantasia, "A Life on the Ocean" *Binding*

10.30.—Close down.

5WA CARDIFF. 351 M.

3.0-4.0.—Falkman and his Orchestra, relayed from the Capitol Cinema.

4.45-5.15.—"5WA'S" "FIVE O'CLOCKS."

5.15-6.0.—CHILDREN'S CORNER.

6.40.—Mr. T. Wallace, M.C., M.Sc., Deputy Director of the Long Ashton Research Station: "The Manuring of Grass Land."

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Capt. C. W. R. KNIGHT. *S.B. from London.*

Local News.

The Music of Edward German.

ARRANGED BY THE COMPOSER.

HERBERT HEYNER (Baritone).

NORA DELMARR (Soprano).

THE STATION ORCHESTRA.

Conductor:

WARWICK BRAITHWAITE.

7.30. Orchestra.

Coronation March and Hymn *(11)*

Bourrée and Gigue ("Much Ado About

Nothing") *(11)*

Herbert Heyner.

"My Song is of the Sturdy North."

(With Orchestral Accompaniment.)

Orchestra.

Prelude, "Romeo and Juliet" *(11)*

Pavane and Pastoral ("Romeo and Juliet")

(11)

Nora Delmarr.

"Sea Lullaby."

"Wandering" ("Songs of Childhood").

"Love in All Seasons."

Orchestra.

Suite, "The Tempter."

Herbert Heyner.

"The Dew Upon the Lily."

"Charming Chloe" *(11)*

"Glorious Devon" *(1)*

Orchestra.

"Gipsy Suite" *(11)*

Nora Delmarr.

Waltz Song ("Tom Jones").

(With Orchestral Accompaniment.)

Orchestra.

Selection, "Merrie England."

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*

British Drama League Lecture Recital. *S.B. from London.*

Royal Horticultural Society Talk. *S.B. from London.*

Local News.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

WIRELESS PROGRAMME—WEDNESDAY (Feb. 18th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

10.15. Herbert Heyner.
 "We're Four Jolly Sailormen" ("A Princess of Kensington").
 "It's a Pressing Invitation that I Bring" ("A Princess of Kensington").
 (With Orchestral Accompaniment.)
 Orchestra.
 March Paraphrase, "Men of Harlech"
 ("Welsh Rhapsody") (11)
 10.35.—Close down.

2ZY MANCHESTER. 375 M.

3.0-3.30. Music relayed from the Piccadilly Picture Theatre. (Conductor—Stanley E. Mills.)
 4.0-4.30. Broadcast to Primary Schools: Edward Cressy on "Travel."
 4.30-5.0.—WOMEN'S HALF-HOUR. John Baron (Baritone).
 5.0-6.0.—CHILDREN'S CORNER.
 6.30-6.55.—Mr. W. Browning, of the Piccadilly Dance Salon, "The Fox-Trot" (2).
 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Capt. C. W. R. KNIGHT. *S.B. from London.*
 Local News.

Operatic.

R. GUNNELLE HAMLYN (Baritone).
 THE "2ZY" ORCHESTRA.

7.30. Orchestra.
 Selections
 "The Prodigal Son" .. Wormser
 "Dinorah" .. Meyerbeer
 "The Tales of Hoffmann" .. Offenbach

R. Gunnelle Hamlyn.

"She Alone Charmeth My Sadness" .. Gounod
 "Vulcan's Song" ("Philemon and Baucis") .. Gounod

Orchestra.

Selections
 "The Queen of Sheba" .. Gounod
 "Tosca" .. Puccini-Tavan
 R. Gunnelle Hamlyn.
 "Loving Smile of Sister Kind" ("Faust") .. Gounod

Orchestra.

Selections
 "Mignon" .. Ambroise Thomas
 "Pagliacci" (By Request) .. Leoncavallo

R. Gunnelle Hamlyn.

Prologue ("Pagliacci") .. Leoncavallo
 Song of the Toreador ("Carmen") .. Bizet

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*
 British Drama League Lecture Recital. *S.B. from London.*
 Royal Horticultural Society Talk.
 Local News.

10.15. Orchestra.
 Selections
 "The Huguenots" .. Meyerbeer
 "La Bohème" .. Puccini
 10.45.—Close down.

5NO NEWCASTLE. 400 M.

3.45-5.15.—The Station Septet: Conductor—Edward Clark. Beatrice Paramor (Soprano). The Rev. Arthur Robins, "An Open-Air School." Isabel Spence (Soprano).
 5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.20.—Scholars' Half-Hour: Mr. C. Roberts, B.A., "Wonders of the Past—The Great Wall of China."
 6.35-6.50.—Farmers' Corner: Prof. Gilchrist, "Seasonable Notes."
 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Capt. C. W. R. KNIGHT. *S.B. from London.*
 Local News.

Light Opera.

IDA COWEY (Soprano).
 NORMAN CURRY (Baritone).
 THE STATION ORCHESTRA:
 Conductor—EDWARD CLARK.

7.30. Orchestra.
 Overture, "Le Puits d'Amour" Balfe
 Ida Cowey.
 7.45. "O Ponder Well" ("The Beggar's Swallow") .. Gay-Austin (1)
 7.55. Norman Curry.
 "Ho, Jolly Jenkin!" .. ("Ivanhoe")
 "Woo Thou Thy Snowflake" .. Sullivan
 "West Country Lad" ("Tom Jones") .. German

8.10. Orchestra.
 Ballet Music, "Le Cid" .. Massenet
 Ida Cowey.
 8.20. "Tis Eventide" ("Falka") .. Chasseigne
 Gavotte, "Mignon" .. Thomas
 8.30. Norman Curry.
 "The Yeomen of England" ("Merrie England") .. German
Violin and Pianoforte Recital
 by
 WINIFRED SMALL and MAURICE COLE.

8.45. Maurice Cole (Solo Pianoforte).
 Mazurka in B Minor, Op. 33, No. 4 .. Chopin
 Study in G .. Moszkowski
 Air de Ballet ..

8.55. Winifred Small and Maurice Cole.
 Sonata in G Minor .. Elgar (11)
 Allegro, Romance; Allegro, non troppo.
 9.20. Winifred Small (Solo Violin).
 Scherzo .. Dittersdorf-Kreisler
 Rondo .. Mozart-Kreisler

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*
 British Drama League Lecture Recital. *S.B. from London.*
 Royal Horticultural Society Talk.
 Local News.
 10.15-10.30.—Programme *S.B. from London.*

2BD ABERDEEN. 495 M.

3.30-5.0.—The Wireless Sextet. Christopher Draper on the Banjoline. Feminine Topics.
 5.30-6.0.—CHILDREN'S CORNER: Auntie Alice will Make Merry at the Piano.
 6.40-6.55.—The Rev. McIntosh Mowat, B.L., on "Things That Matter—(1) Happiness."
 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Capt. C. W. R. KNIGHT. *S.B. from London.*
 Local News.

Choral and Orchestral.

RITA LAING (Soprano).

THE WIRELESS ORCHESTRA.

7.30. Orchestra.
 Overture, "Le Lac des Fées" ("The Fairy Lake") .. Auber
 7.40. Rita Laing.
 "Still as the Night" .. Bohm
 "My Pretty Dove" ("The Tales of Hoffmann") .. Offenbach

7.50. Orchestra.
 "Pizzicato" .. Drigo
 "Vision d'Amour" .. Friml
 "Dancing Doll" .. Poldini

8.0. Rita Laing.
 "There are Two Bonnie Maidens" .. Old
 "Braw, Braw Lads" .. Scots (36)

8.10. Orchestra.
 Concert Valse, "Un Soir" .. Cremieux
 March, "For Liberty" .. Morris
 8.20. Rita Laing.
 "The Spinning Wheel" .. Old Scots (36)
 "Ca' the Yowes" ..

8.30. MADAME MURRAY'S DANCE ORCHESTRA.
 Relayed from Madame Murray's Dance Studio.

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*
 British Drama League Lecture Recital. *S.B. from London.*
 Royal Horticultural Society Talk. *S.B. from London.*
 Local News.

10.15.—Madame Murray's Dance Orchestra (Continued).
 10.30.—Close down.

5SC GLASGOW. 420 M.

3.30-4.0.—Broadcast to Schools.
 4.0-5.10.—The Wireless Quartet. Isobel A. Simpson (Contralto), Afternoon Topics.
 5.15-6.0.—CHILDREN'S CORNER: Singing Lesson, by Auntie Cyclone.
 6.0-6.5.—Weather Forecast for Farmers.
 6.40-6.55.—Mr. Allan Mainds on "Painting."
 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Capt. C. W. R. KNIGHT. *S.B. from London.*
 Local News.

Request Night.

THE WIRELESS ORCHESTRA:

Conducted by
 HERBERT A. CARRUTHERS.
 JOHN HENRY (Entertainer).
 CONSTANCE WENTWORTH (Soprano)
 FREDERIC LAKE (Tenor).
 VERSE AND PROSE SPEAKING ASSOCIATION.
S.B. to Edinburgh and Dundee.

7.30. Orchestra.
 Overture to a French Comedy .. Keler-Bela
 7.40. Frederic Lake.
 "Come Into the Garden, Maud" .. Balfe
 "Ailsa Mine" .. Newton (1)
 "My Dreams" .. Tosti
 "The Phantom Army" .. Tovey

7.55. Orchestra.
 Entr'acte, "Penelope's Garden" .. Ancliffe
 8.0. John Henry.
 First Appearance—this evening.
 8.15. Verse and Prose Speaking Association.
 Recital under the Direction of
 NAN R. SCOTT.

"At a Solemn Music" .. Milton
 Last Speech and Chorus from "Samson Agonistes" .. Milton
 "Night" .. Shelley
 "The Fugitives" ..

"The Lowlands of Holland" .. Scottish Ballads { Oxford Book of Ballads
 "The Demon Lover" .. Keats
 "La Bello Dame Sans Merci" .. Keats

Speeches from
 "The Winter's Tale" .. Shakespeare
 "King Lear" ..
 "Coronach" .. Scot
 "Pibroch" ..

8.45. Orchestra.
 Ballet Suite, "Lakmé" .. Delibes
 Terana; Rektah; Persian; Coda.
 9.5. Constance Wentworth.

"Memory's Home" .. Buchanan (5)
 "Bird of Love Divine" .. Haydn Wood (1)
 "It is Only a Tiny Garden" .. Haydn Wood
 9.15. John Henry Turns Up Again!
 9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Royal Horticultural Society Talk. *S.B. from London.*
 British Drama League Lecture Recital. *S.B. from London.*
 Local News.

10.15. Constance Wentworth and Frederic Lake (Duets).
 "Misereere Scene" ("Il Trovatore") .. Verdi
 "Enchantment" ("The Passing Show") .. Olier (8)
 "Oh, No, John" .. Traditional (11)
 "Keys of Heaven" ..

10.30. Orchestra.
 Concert Valse, "Artists' Life" .. Strauss
 March, "Vito" .. Lope

10.45. DANCE MUSIC.
 Relayed from
 "The Plaza" Palais de Danse.

11.30.—Close down.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

THE CHILDREN'S CORNER, CONDUCTED BY THE AUNTS AND UNCLES.

Nature's Wonderland—The Yellowstone National Park.

HULLO, children! Probably all of you are fond of playing in parks. Here is a talk about the most wonderful park in the world.

I wonder which is the biggest park in which you have ever been? The Great Park at Windsor, or Richmond Park? Or perhaps you only know the smaller and more formal parks in the heart of London and other big cities? Can you then imagine a wild tract of country where bears roam about and herds of great shaggy bison wander at large—a tract of land about half the size of Wales surrounded by magnificent forests and splendid snow-capped mountains? For such is the Yellowstone National Park, in the State of Wyoming, U.S.A.

Rumours of Marvels.

Less than a hundred years ago nothing was known of this vast wonderland of Nature, except by the Red Indians; but gradually rumours of the marvels that lay hidden beyond the great pine forests penetrated through to the outer world. Then Expeditions were sent to see if these stories of fountains of hot water and jets of boiling mud could possibly be true. In due course an Expedition returned and reported that the Yellowstone district was even more wonderful than had been imagined. Not only were the tales of the hot-springs and geysers true, but the whole country was a fairyland of beauty and the home of countless wild animals.

If you go there, and you must go in summer time, because in winter the snow lies thick upon the ground, and everything is frozen in a white stillness, you will see black, brown or grizzly bears at almost any time of the day. Perhaps a coyote or a porcupine will come your way, and if you wander near the streams in search of wild black currants, you may be lucky

enough to see a pelican—one of those funny-looking birds which keep the fish they catch in the pouch of their throats until they are ready for dinner.

There is a wonderful variety of flowers, ranging from daisies, buttercups, and forget-me-nots to weird cacti and other plants of the desert which grow round the volcanic hot-springs district. The blueberry forms a thick under-bush in the forest regions, and gooseberries, choke-berries and buffalo-berries, as well as red and black currants, grow in the damper places.



Bears searching a cart for tit-bits in Yellowstone Park.

It is great fun, too, to go on the lake and visit some of the lovely little forest islands that rise from its waters. Through this lake the Yellowstone River flows on its way to join the Mississippi, forming the most superb waterfalls after it has left the great sheet of water behind. First comes the Upper Fall, a sheer drop of 109 feet, and, half-a-mile below, the water rolls over the Lower Fall, a descent of 308 feet, from whence it pours into the Grand Canyon. The walls of the Canyon vary from 600 to 1,200 feet in height, and the richness of their colouring

almost defies description. Red, orange, yellow and purple are the predominating tints and seem even brighter than they are by contrast with the dark green pines that fringe the chasm's edge, while at the foot of the canyon the river surges past, a raging torrent of white foam.

This and the Geyser basins are the chief glories of Yellowstone National Park, and the latter, though possibly the less beautiful of the two, are certainly the more uncommon and interesting. There are over a hundred of these geysers and steam-vents. "Excelsior," the largest, used to throw up a jet of water from 200 to 250 feet high, but it has been inactive for the past thirty-five years. "Old Faithful" throws up a tremendous column of water about once an hour, and "The Giant" reaches 250 feet in height and lasts for ninety minutes at a time. One of the steam-vents in the Norris Basin is called "The Growler," and another "The Hurricane," because the noise of the steam as it rushes from the earth through a very small aperture, can be heard for miles around.

Nature's Paint-Box.

Near the centre of the park is the "Mud Cauldron," a great round hole about 40 feet deep, with boiling mud at the bottom. "The Mammoth Paint Pots" are a group of curiously-formed mud-springs of the most vivid colouring and quaint shapes. Nature has, in fact, run riot with her paint-box through the Hot Spring region. In some places, the cooling of the water from the geysers has deposited a coat of dazzling white rock over the land. Here and there, the rock has been stained by other chemicals—sulphur, iron and lime—with bright bands of red and yellow and the tints of the pools are of matchless beauty.

"The Mammoth Hot Springs" have formed a series of terraces across a small ravine. These, too, are a blaze of colour, and the water that flows over them is of a lovely transparent blue.

TOMMY'S HELMET.

By LANGFORD REED.



"Of all the young imps of mischief!" she exclaimed.

"A fine soldier you'd look, I don't think!" sneered "General" Tommy Green, as he marched away with his ragged brigade of little boys in search of glory.

TOMMY TUCKER felt very sad. When the Army had come marching down Paradise Alley, looking very brave with their tin helmets and guns of painted wood, he had volunteered to enlist, but had been rejected because he lacked equipment of any kind.

Suddenly into the mind of the would-be recruit there flashed a bright idea and, running indoors, he made his way to the kitchen.

Very carefully Tommy reached for his mother's new saucepan. "It won't half make a fine helmet!" he thought. "I'll show those chaps they're not the only ones who can dress up as soldiers."

He placed the saucepan on his curly head and pressed it down with both hands to make it stick. Suddenly it slipped right down and there was poor Tommy wedged tight, in a novel kind of mask from which he vainly attempted to free himself!

Crying loudly, he groped his way into the yard to find his mother.

"Of all the young imps of mischief!" she exclaimed, when she found it impossible to un-saucepan him. Much annoyed, she shook him, violently, which made him howl louder than ever. Mrs. Perkins, from next door, came in to render assistance and Tommy was held up by his heels; but the saucepan declined to leave him.

"There's only one thing to do," exclaimed Tommy's distracted mother, "and that's to take you to the hospital."

In the tram, on the way to the hospital, the passengers seemed to think that Tommy was wearing his extraordinary head-gear for their amusement, for they grinned until his indignant mother could hardly contain herself.

A clergyman, sitting next to Tommy, was more sympathetic and spoke kindly to him. Tommy turned his head sharply and the handle of that troublesome saucepan went right through the window! And, as if that were not misfortune enough, the conductor demanded Mrs. Tucker's name and address and told her she would have to pay for the damage! He also called a policeman, who turned her and her son out of the tram for causing a disturbance!

The doctor at the hospital must have been very clever for he managed to remove the saucepan without very much difficulty. But Tommy did not feel much happier, for as soon as they got outside the hospital, his mother exclaimed, "Wait till I get you home, my lad, just you wait!"

But when they reached Paradise Alley they found the clergyman awaiting them.

"Mrs. Tucker," he exclaimed, "I've told the conductor that as the window was broken through me, I shall insist upon paying for it. And I've bought a fine new helmet with a red plume, for Tommy, for after what he has been through I think he deserves it, don't you? Let him off this time, for I feel sure he will never try your saucepans on again."

And Mrs. Tucker, who was really very fond of Tommy and was very thankful he had not to go through life wearing a saucepan, agreed.

WIRELESS PROGRAMME—THURSDAY (Feb. 19th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2LO LONDON. 365 M.

- 1.0-2.0.—Time Signal from Greenwich. The Week's New Gramophone Records.
- 3.15-3.45.—Transmission to Schools: Lecture Recital "Children in Dickens—Tiny Tim," by J. C. STOBART and R. E. JEFFREY.
- 4.0-5.0.—Time Signal from Greenwich. "The Art of the Loom," by Elise I. Sprout. Music performed during Afternoon Tea at the Trocadero Restaurant. "Eighteenth Century Ceramics" (1), by Violet M. Methley.
- 5.30-6.15.—CHILDREN'S CORNER.
- 6.40-6.55.—Mr. CECIL J. ALLEN, A.M.Inst.T., "Forerunners of the Railway."
- 7.0.—TIME SIGNAL FROM BIG BEN. WEATHER FORECAST and 1ST GENERAL NEWS BULLETIN. *S.B. to all Stations.* Talk by the Radio Society of Great Britain. *S.B. to all Stations.*
- Mr. ALLEN S. WALKER, "Architecture—The Cathedrals of Salisbury and Wells, and Westminster Abbey." *S.B. to all Stations.* Local News.

Chamber Music Evening.

S.B. to other Stations.

THE KUTCHER STRING QUARTET:
SAMUEL KUTCHER;
GEORGE WHITAKER;
LEONARD RUBENSTEIN;
JOHN BARBIROLI.

Assisted by

ETHEL BARTLETT (Solo Pianoforte),
BRABAZON LOWTHER (Baritone).

- 7.35. The Quartet.
Quartet in D Minor Mozart
Samuel Kutcher.
Fugue for Violin in A Major
Tartini-Kreisler
- 8.0.—Poetry Reading: DOROTHIE PANTLING and CECIL LEWIS, "The Development of the Sonnet."
- 8.20. Brabazon Lowther.
"The Slighted Swain" Old English Songs } *arr. Lane Wilson*
"The Pretty Creature" }
"Krishna" *Luella Burnham*
"To a Messenger" *La Forge*
"The Heart of a Friend"
Brabazon Lowther
"Love's Gift" *Marie Carandini*
- 8.35. The Quartet and Ethel Bartlett.
Pianoforte Quintet in B Minor (Second Performance) *Robert Chignell-1914*
- 8.50. Brabazon Lowther.
"Where'er You Walk" *Handel*
"Hear Me, Ye Winds and Waves" ("Scipio") *Handel (1)*
- 9.0. The Quartet.
Quartet *Delius*
With Animation; Quick, and Lightly;
"Late Swallows" (Slow, and Wistfully);
Very Quick and Vigorous.
- 9.30.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and 2ND GENERAL NEWS BULLETIN. *S.B. to all Stations.*
Sir JAMES C. PERCY, D.L., on "Bulls and Blunders." *S.B. to all Stations.* Local News.
- Pianoforte Recital.
10.0-10.30.
SAPELLNIKOFF.
Gavotte *Sapellnikoff*
Prelude in G Minor *Rachmaninoff*
Liebestraum }
Rhapsodie (No. 12) } *Liszt*
- 10.30.—THE SAVOY ORPHEANS and SAVOY HAVANA BAND, relayed from the Savoy Hotel, London. *S.B. to all Stations.*
- 11.0.—Close down.

5IT BIRMINGHAM. 475 M.

- 3.30-4.30.—The Station Pianoforte Quintet
John Buckley (Baritone).
- 5.0-5.30.—WOMEN'S CORNER: Frank Cantell (Solo Violin).
- 5.30-6.30.—CHILDREN'S CORNER.
- 6.30-6.45.—"Teens' Corner: J. Ernest Jones, "Peeps into the Past" (4).
- 7.0-11.0.—*Programme S.B. from London.*

6BM BOURNEMOUTH. 385 M.

- 3.45-5.0.—Talk by Miss Penrice. The Orpheus Quintet.
- 5.0-6.0.—CHILDREN'S CORNER.
- 6.0-6.30.—Scholars' Half-Hour: "Hockey and Health," by E. J. Roberts.
- 6.30-6.45.—Farmers' Talk: "Ducks for Egg Production," by H. S. Carrington, M.A.
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
Radio Society Talk. *S.B. from London.*
Mr. ALLEN S. WALKER. *S.B. from London.* Local News.

Musical Appreciation.

- A Survey of the Evolution of Music, from the Earliest Times to the Present.
Historians:
Capt. W. A. FEATHERSTONE, Station Musical Director.
Mr. C. WHITAKER-WILSON, Organist, St. John's, Regent's Park.
- 7.35. When Music was Crude.
Some Early Melodies.
Ever Since Man Fought Man.
Trumpet Solos and Fanfares.
Horns and Trombones.
"Tally-Ho" *Traditional*
"Oberon" *Weber*
Fifth Symphony *Tchaikovsky*
Equali *Beethoven*
Instruments of the Home.
An Early Dulcimer Tune (Clavichord).
Gavotte (Clavichord) *Bach*
Minuet
Rigadon } (Harpichord) *Purcell*
Hornpipe }
Prelude
Allegretto from Sonata in D Minor, Op. 51, No. 2 (Piano) *Beethoven*
G Flat Study (Piano) *Chopin*
Arabesque in G (Piano) *Debussy*
The King of Instruments.
Prelude (Organ) *Bach*
Cantilene (Organ) *Guilmant*
Wood Wind.
William Tell (Flute and Oboe) ... *Rossini*
Tannhäuser } *Wagner*
Largo—New World } (Cor Anglais)
Symphony ... } *Dvorak*
Concerto (Clarinet) *Weber*
"La Dame Blanche" (Bassoon) *Boieldieu*
Organist—ARTHUR MARSTON.
THE WIRELESS AUGMENTED ORCHESTRA.
- 9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*
Sir JAMES C. PERCY. *S.B. from London.* Local News.
- 10.0. C. Whitaker-Wilson with Orchestra.
Piano Concerto in G Minor ... *Mendelssohn*
- 10.30.—SAVOY BANDS. *S.B. from London.*
- 11.0.—Close down.

5WA CARDIFF. 351 M.

- 3.0-4.30.—THE STATION ORCHESTRA:
Symphony No. 1 in C Major (Op. 21) (*Beethoven*). HELENA MILLAIS (The Actress Entertainer).

- 4.45-5.15.—"5WA'S" "FIVE O'CLOCKS."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.40-6.55.—Mr. J. Kyrle Fletcher, "The Romance of Welsh Porcelain—The Story of Pollard and Baxter."
- 7.0-11.0.—*Programme S.B. from London.*

2ZY MANCHESTER. 375 M.

- 11.30-12.30.—Concert by the "2ZY" Quartet
- 4.30-5.0.—WOMEN'S HALF-HOUR.
- 5.0-6.0.—CHILDREN'S CORNER.
- 6.30-6.35.—Boy Scouts' Local News Bulletin.
- 6.35-6.55.—Mr. F. Hall on "The Rochdale Pioneers."
- 7.0.—WEATHER FORECAST AND NEWS. *S.B. from London.*
Radio Society Talk. *S.B. from London.*
Mr. ALLEN S. WALKER. *S.B. from London.* Local News.

Vocal and Instrumental Hour.

ROBERT RADFORD (Bass).
ARTHUR SPENCER (Solo Piano).

- 7.35. Robert Radford.
"When a Maiden Takes Your Fancy" ("Il Seraglio") *Mozart*
"I'll Have Vengeance" ("Figaro") *Mozart*
"Falstaff's Drinking Song" ("The Merry Wives of Windsor") *Niccolai*
Arthur Spencer.
"Pastorale and Capriccio" *Scarlatti*
"Hark, Hark the Lark" *Schubert-Liszt*
"Hungarian Rhapsody," No. 2 *Liszt*
Robert Radford.
"Song of Momus to Mars" *Boyc*
"The Owl is Abroad" *Purcell*
"Now Phoebus Sinketh in the West" *Arne*
"Arise, Ye Subterranean Winds" *Purcell (11)*
Arthur Spencer.
Nocture in F Sharp *Chopin*
"March of the Dwarfs" *Moszkowski*

8.30. THE PICCADILLY DANCE BAND.

Relayed from
The Piccadilly Picture Theatre.
9.30-11.0.—*Programme S.B. from London.*

5NO NEWCASTLE. 400 M.

- 11.30-12.30.—Jean Forsyth (Mezzo-Soprano).
Tilley's Restaurant Orchestra.
- 3.45-5.15.—May Welsh (Contralto). John Henry (Entertainer). Sam Barraclough (Cornet). Douglas Swallow (Xylophone). Jennie English, M.A., "The Dawn of Reason in Childhood."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.40-6.55.—Mr. J. L. Gibson: French Talk.
- 7.0-11.0.—*Programme S.B. from London.*

2BD ABERDEEN. 495 M.

- 3.30-5.0.—The Wireless Septet. Robert E. Anderson (Baritone). Feminine Topics.
- 5.30-6.0.—CHILDREN'S CORNER.
- 6.0-6.15.—Inaugural Talk by Mr. W. Edmund Bell, F.S.A. (Scot.), President, Aberdeen and North of Scotland Philatelic Society.
- 6.15-6.30.—Boys' Brigade News Bulletin: Mr. R. W. Findlay, Convener, No. 3 District, on "The Right Type of B.B. Officer."
- 6.40-6.55.—Mr. Harry Townend, M.A., Topical Talk. *S.B. to Scottish Stations.*
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
Radio Society Talk. *S.B. from London.*
Mr. ALLEN S. WALKER. *S.B. from London.* Local News.

Popular Programme.

CONSTANCE WENTWORTH (Soprano).
FREDERICK LAKE (Tenor).
THE WIRELESS ORCHESTRA.

(Continued in col. 3, page 355.)

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

WIRELESS PROGRAMME—FRIDAY (Feb. 20th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2LO LONDON. 365 M

- 1.0-2.0.—Time Signal from Greenwich. Concert: The "2LO" Trio and Herbert Ruddock (Baritone).
- 3.15-3.45.—Transmission to Schools: Mrs. Hobart Hampden, "India."
- 4.0-4.30.—London Scholars' Half-Hour: Sir H. WALFORD DAVIES, "How to Listen to Broadcast Lessons." (With Musical Illustration by the Lecturer.)
- 4.30-5.0.—Organ Music, relayed from Shepherd's Bush Pavilion.
- 5.30-6.15.—CHILDREN'S CORNER: Songs by Osmond Davis (Tenor). "The Story of the Roots," told by Catherine Wiens. "The Dormouse who Laughed in his Sleep," from "The Wiggley Weasel," by Mabel Marlowe.
- 6.40-6.55.—Ministry of Agriculture's Fortnightly Bulletin. *S.B. to other Stations.*
- 7.0.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and 1ST GENERAL NEWS BULLETIN. *S.B. to all Stations.*
- PERCY SCHOLES, the B.B.C. Music Critic. *S.B. to all Stations.* Local News.
- Popular Concert.**
- RUBY HELDER (The Lady Tenor).
PHYLLIS EMANUEL (Solo Pianoforte).
RONALD GOURLEY (Entertainer at the Piano).
JOAN HASTINGS (Entertainer at Piano).
"QUIPS."
- THE WIRELESS ORCHESTRA:
Conducted by DAN GODFREY, Junr.
- 7.30. The Orchestra.
March, "The Children of the Regiment" *Fucik*
Joan Hastings.
"Catch Me" *M. Cooper*
"Liza Brown" *M. Harrison*
"I've Found the Little Ogo-Pogo"
Leatham and Ross
The Orchestra.
Selection, "Lilac Time" *Schubert-Clutsam*
Phyllis Emanuel.
"Gopak" *Moussorgsky*
"Fantaisie-Impromptu" *Chopin*
- 8.0 (approx.). Ruby Helder.
"The Last Watch" *Ciro Pinsuti (1)*
"I've Been Roaming" *C. E. Horn*
"Fily Mavourneen" *Benedict*
"Quips."
The World in Anecdote, No. 9—"Doctors' Dilemmas."
The Orchestra.
"Romance Pathétique" *Partridge*
The Orchestra.
Clog Dance, "Handel in the Strand" *Grainger*
- 8.25-9.15 (approx.).—Speeches by H.R.H. The PRINCE OF WALES, K.G., The Rt. Hon. STANLEY BALDWIN, M.P., Prime Minister, Sir WARREN FISHER (Chairman), Sir EVELYN MURRAY, K.C.B., at the CIVIL SERVICE DINNER, relayed from the Connaught Rooms, Holborn Restaurant, London. *S.B. to other Stations.*
- 9.15. (approx.). The Orchestra.
Selection, "Tails Up" *Braham*
- 9.30.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and 2ND GENERAL NEWS BULLETIN. *S.B. to all Stations.*
- Colonel The MASTER OF SEMPILL, "Aviation in Japan." *S.B. to all Stations.* Local News.
- 10.0. Ruby Helder.
"Nirvana" *Stephen Adams (1)*
"Annie Laurie" *Anon.*
"Onaway, Awake, Beloved"
Coleridge-Taylor (11)
Ronald Gourley in Music and Humour.
The Orchestra.
Bell Fox-trot, "Ding Dong" *Partridge*
Fox-trot, "What Do You Do Sunday, Mary?" *James*
- 10.30.—Close down.

5IT BIRMINGHAM. 475 M.

- 3.30-4.30.—Lozells Picture House Orchestra. Gertrude E. Easton (Dramatic Recital).
- 5.0-5.30.—WOMEN CORNER: Harold Baker, F.R.P.S., "Lady Jane Grey." Gertrude Davies (Soprano).
- 5.30-6.30.—CHILDREN'S CORNER.
- 6.30-6.40.—Teens' Corner: Monsieur R. Thibault, French Talk.
- 6.40-6.55.—Ministry of Agriculture's Fortnightly Bulletin. *S.B. from London.*
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
- PERCY SCHOLES. *S.B. from London.* Local News.
- 7.30.—Lecture—relayed from the Cosmopolitan Club: Major ADRIAN B. KLEIN, M.B.E., on "Colour and Illumination."
Speech and Music.
- 8.0. THE STATION ORCHESTRA.
Selection, "Reminiscences of the Plantation" *Chambers*
- 8.15 (approx.).—Speech by The Rt. Hon. The EARL OF BIRKENHEAD, K.C. Relayed from the Chamber of Commerce Banquet at the Grand Hotel.
- 9.0 (approx.). HELENA MILLAIS (The Actress Entertainer).
In "Fragments from Life."
The Orchestra.
- 9.15. "Selection, "To-Night's the Night" *Rubens*
- 9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*
Colonel The MASTER OF SEMPILL. *S.B. from London.* Local News.
- 10.0. Helena Millais.
"Our Lizzie Goes to Queen's Hall."
The Orchestra.
March, "Old Faithful" *Holzmann*
Descriptive Overture, "Gipsy Lad" *Ketelbey*
Valse, "Charme d'Amour" *Godin*
- 10.30.—Close down.

6BM BOURNEMOUTH. 385 M.

- 3.0-3.30.—Educational Talk: "Bygone England—(3) Mete and Drink," by Mr. Frank Stevens, F.S.A.
- 3.55-5.0.—Fashion Talk to Women by Louis de Mayo. The Aerials Concert Party.
- 5.0-6.0.—CHILDREN'S CORNER.
- 6.0-6.30.—Scholars' Half-Hour: "Curious Words and Phrases in Common Use," by A. S. White, B.Sc.
- 6.40-6.55.—Ministry of Agriculture's Fortnightly Bulletin. *S.B. from London.*
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
- PERCY SCHOLES. *S.B. from London.* Local News.
- Musical Appreciation.**
Second Night.
Historians:
Capt. W. A. FEATHERSTONE, Station Musical Director.
Mr. C. WHITAKER-WILSON, Organist, St. John's, Regent's Park.
Vocalists:
EDYTHE KINCH, GLADYS PALMER, SYDNEY COLTHAM, GEORGE PIZZEY, GERALD KAYE, MARY LEWIS (Solo Harp).
- THE "6BM" CHOIR.
THE WIRELESS AUGMENTED ORCHESTRA.
- 7.30. The Influence of Religion in Music.
"O Lord My God" *Byrd—1589*
Madrigal.
"The Silver Swan" *Orlando Gibbons*
Further Influence of Religion on Music.
"Hallelujah Chorus" *Handel*
"The Creation" *Haydn*
"He, Watching Over Israel" *Mendelssohn*
From Folk Song to Modern Ballad.
"If My Love Leaves Me" *Traditional*
"The Last Rose of Summer" *Moore*
"Now Sleeps the Crimson Petal"
R. Quilter
The Welding of Two Arts.
"Orpheo" *Gluck*
"Aida" *Verdi*
"Lohengrin" *Wagner*

- 8.25.—Speeches relayed from the CIVIL SERVICE DINNER. *S.B. from London.*
- 9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*
Colonel The MASTER OF SEMPILL. *S.B. from London.* Local News.
- 10.0. Strings.
Chanson (Polonaise) (Violin) *Wieniawski*
"Harold in Italy" (Viola) *Berlioz*
Scherzo (Cello) *Van Goens*
"The Unfinished Symphony" (D Bass) *Schubert*
"Valse des Fleurs" (Harp) *Tchaikovsky*
Percussion.
Piano Concerto in G Minor (Tympani) *Saint-Saens*
"Rolls" in Regimental Marches (Drums)
"Turkish Patrol" (Cymbals) *Michaelis*
Rossini, Brahms, Beethoven (Triangle).
Tchaikovsky—"1812" (Bells).
"Shepherd's Hey" (Glockenspiel) *Grainger*
"Maximilian Robespierre" (Gong) *Litolff*
"The Zenith."
Scherzo and Finale, Fifth Symphony *Beethoven*
- 11.0.—Close down.

5WA CARDIFF. 351 M.

- 3.0-3.30.—Transmission to Schools: "The Animal Kingdom," by Dr. Jas. J. Simpson, M.A., D.Sc.
- 3.30-4.0.—The Station Trio.
- 4.45-5.15.—"5WA'S" "FIVE O'CLOCKS."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.40-6.55.—Ministry of Agriculture's Fortnightly Bulletin. *S.B. from London.*
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
- PERCY SCHOLES. *S.B. from London.* Local News.
- The Charm of Variety.**
JOHN BUCKLEY (Bass).
MONA GREY (Entertainer).
THE STATION ORCHESTRA.
Conductor, WARWICK BRAITHWAITE.
- 7.30. Orchestra.
"Grasshoppers' Dance" *Bucalossi*
Suite, "Africana" *Thurban (20)*
Mona Grey.
A Study of Childhood.
John Buckley.
"Some Rival Has Stolen My True Love"
arr. Lucy Broadwood (1)
"Over Here" *arr. Chas. Wood (1)*
"Ballynure Ballad" *arr. Herbert Hughes (1)*
- 8.0. "A NASTY NIGHT IN NUBIA."
A Radio Melodrama by Ivor Herbert McClure.
- THE "5WA" RADIO PLAYERS.
Orchestra.
- 8.35. "Down South" *Myddleton*
- 8.40. OLD JOE AND COMPANY
present
"A DARKTOWN INTERLUDE."
A Memory of the Old Christy Minstrels.
- 9.30.—WEATHER FORECAST and NEWS. Colonel The MASTER OF SEMPILL. *S.B. from London.* Local News.
- 10.0. Orchestra.
Overture, "Abu Hassan" *Weber*
Selection, "The Beauty Prize" *Kern*
Mona Grey. Humorous Sketch.
John Buckley.
- 10.20. "Maire, My Girl" *G. Aitken*
"The Wayfarer's Night Song" *Easthope*
"The Wedding of Sara Lee" *Martin (5)*
- 10.35. Another "Darktown Interlude."
- 11.0.—MAX CHAPPELL'S LONDON CHOR-EANS, relayed from the Annual Dance of the Barry Golf Club at Cox's Café, Cardiff.
- 12.0.—Close down.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

WIRELESS PROGRAMME—FRIDAY (Feb. 20th.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2ZY MANCHESTER. 375 M.
 12.30-1.30.—Organ Music by H. Fitzroy Page, relayed from Piccadilly Picture Theatre.
 3.0-3.30. Concert by the "2ZY" Quartet.
 4.0-4.30. Broadcast to Secondary Schools (Seniors). M. ALBERT THOUAILLE, Reading of French Literature.
 4.30-5.0.—WOMEN'S HALF-HOUR. James Birell (Tenor).
 5.0-6.0.—CHILDREN'S CORNER.
 6.40-6.55.—Ministry of Agriculture's Fort-nightly Bulletin. *S.B. from London.*
 7.0.—WEATHER FORECAST and NEWS. PERCY SCHOLES. *S.B. from London.* Local News.

Concert
 in aid of
The Lord Mayor of Manchester's Un-employment Fund.

Relayed from the Free Trade Hall.
 MAVIS BENNETT (Soprano).
 ALBERT SAMMONS (Solo Violin).
 JOHN HENRY (Entertainer).
 THE "2ZY" AUGMENTED ORCHESTRA:
 Conductor, T. H. MORRISON.
 7.30. Orchestra.
 Overture, "A Roman Carnival" ...Berlioz
 Mavis Bennett.
 "Caro Nome!" ("Rigoletto") ... Verdi
 "Porgi Amor" ("Figaro") ...Mozart
 Albert Sammons.
 "Chaconne" ...Vitali
 Orchestra.
 Tone Poem, "Ultava" ...Smetana
 John Henry Calling.
 Community Singing.
 "John Brown's Body"; "Rule Britan-
 nia."
 Orchestra.
 Ballet, "Le Cid" ...Massenet
 Mavis Bennett.
 "Hymn to the Sun" ...Rimsky-Korsakov
 "How Fair This Spot" ...Rachmaninov
 Albert Sammons.
 Nocturne in E Minor ...Chopin-Auer
 Rondo in G ...Mozart-Kreisler
 Orchestra.
 "Siegfried's Journey to the Rhine" Wagner
 John Henry Calls Again.
 Orchestra.
 "The Ride of the Valkyries" ...Wagner
 Community Singing.
 "Auld Lang Syne"; "God Save the
 King."
 9.30.—WEATHER FORECAST and NEWS.
 Colonel THE MASTER OF SEMPILL. *S.B.*
from London.
 Station Director's Talk. Local News.
 10.5. THE PICCADILLY DANCE BAND.
 Relayed from Piccadilly Picture Theatre.
 10.30.—Close down.

5NO NEWCASTLE. 400 M.
 3.45-5.15.—Tilley's Restaurant Orchestra.
 Florence Creswell on "Kindness to
 Animals." Mabel Offer (Mezzo-Soprano).
 5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.20.—Scholars' Half-Hour: Mr. J. S. Lock,
 B.A., "Popular Life in Literature—The
 Augustan Age."
 6.40-6.55.—Ministry of Agriculture's Fort-
 nightly Bulletin. *S.B. from London.*
 7.0.—WEATHER FORECAST and NEWS.
 PERCY SCHOLES. *S.B. from London.*
 Local News.

"From the Cotton Fields."

GERTRUDE JOHNSON (Soprano).
 W. J. STARKEY (Solo Banjo).
 THE STATION ORCHESTRA:
 Conductor, EDWARD CLARK.
 7.30. Orchestra.
 Suite, "Americana" ...Thurban
 Gertrude Johnson.
 7.50. Negro Spirituals ...arr. H. T. Burleigh
 W. J. Starkey.
 8.0. "A Georgia Walk Round" ...Morley
 "Uncle Sambo" ...Frank Stafford

8.15. Orchestra.
 "Everything is Peaches Down in Georgia."
 "You're in Kentucky, Shure as You're
 Born" (9)
 8.25.—Speeches relayed from the CIVIL
 SERVICE DINNER. *S.B. from London.*
 9.15. Orchestra. Selected.
 9.30.—WEATHER FORECAST and NEWS.
 Colonel THE MASTER OF SEMPILL. *S.B.*
from London. Local News.
 10.0. Gertrude Johnson.
 "Ma Curly-headed Babby" Clutsam
 "The Old Folks at Home" Christie
 W. J. Starkey.
 "The Minstrel Man" Grimshaw
 "Carolina Tar Heel" Sullivan
 "De Ole Banjo" Scott-Gatty (1)
 Orchestra.
 "A Southern Wedding" Lotter
 10.35.—Close down.

2BD ABERDEEN. 495 M.

3.30-4.15.—School Transmission: Dr. W.
 Douglas Simpson, F.S.A. (Scot.), on
 "The Romans in Aberdeenshire." Mr.
 William Swainson, on "Melody." Mr.
 Harry Townend, M.A., on "Art."
 4.15-5.0.—Beatrice Eveline (Cello Recital),
 followed by Feminine Topics.
 5.30-6.0.—CHILDREN'S CORNER.
 6.0.—Football Corner: Conducted by Peter
 Craigmyle.
 6.20.—Mr. William Brown, B.Sc., M.R.C.V.S.,
 "Veterinary Topics."
 6.40.—Farmers' Advisory Corner, Conducted by
 Don G. Munro, B.Sc.
 6.50.—Agricultural Notes.
 7.0.—WEATHER FORECAST and NEWS.
 PERCY SCHOLES. *S.B. from London.*
 Local News.
 7.30-8.25.—Programme *S.B. from Glasgow.*
 8.25.—Speeches relayed from the CIVIL
 SERVICE DINNER. *S.B. from London.*
 9.15.—Programme *S.B. from Glasgow.*
 9.30.—WEATHER FORECAST and NEWS.
 Colonel THE MASTER OF SEMPILL.
S.B. from London. Local News.
 10.0-10.30.—Programme *S.B. from Glasgow.*

5SC GLASGOW. 420 M.

3.30-4.0.—Broadcast to Schools.
 4.0-5.10.—The Wireless Quartet. Agnes Sowter
 (Contralto). Afternoon Topics.
 5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.5.—Weather Forecast for Farmers.
 6.40-6.55.—Ministry of Agriculture's Fort-
 nightly Bulletin. *S.B. from London.*
 7.0.—WEATHER FORECAST and NEWS.
 PERCY SCHOLES. *S.B. from London.*
 Local News.

Popular Night.

THE STATION ORCHESTRA.
 Conducted by ISAAC LOSOWSKY.
 THE GLASGOW BACH CHOIR:
 Conducted by J. MICHAEL DIACK.
 AUGUSTUS BEDDIE (Scots Recital).
 MARGARET THACKERAY (Contralto).
S.B. to Aberdeen.
 7.30. Orchestra.
 Overture, "Marco Spada"Auber
 7.55. Choir.
 Selections from "The Peasant Cantata"
 Bach
 8.25-9.15.—Speeches relayed from the Civil
 Service Dinner. *S.B. from London.*
 9.15. Augustus Beddie.
 "Robbie Doo at a Burns Supper" Waugh
 9.30.—WEATHER FORECAST and NEWS.
 Colonel THE MASTER OF SEMPILL.
S.B. from London. Local News.
 10.0. Margaret Thackeray.
 "Rose Petals" C. Moon
 "Absent" J. Metcalf
 "Sincerity" E. Clarke
 "Down the Burn"arr. J. Hook (25)
 10.10. Orchestra.
 Selection, "A Life on the Ocean" ...Binding
 March, "Irish Patrol"Puerner
 10.30. DANCE MUSIC.
 Relayed from
 The "Plaza" Palais de Danso.
 11.30.—Close down.

Thursday's Programme

(Continued from page 353).

7.35. Orchestra.
 Suite, "The Miracle" Humperdinck
 7.50. Constance Wentworth and Frederick Lake.
 Duets { "Miserere Scena" ("Il Trovatore")
 Verdi
 "Maying" Smith
 8.0. Frederick Lake.
 "Lend Me Your Aid" ("Irene") Gounod
 "When the Stars Were Brightly Shining"
 ("Tosca") Puccini
 8.10. Constance Wentworth.
 "Down in the Forest" ...Landon Ronald (5)
 "Cherry Ripe" Lehmann
 "Wait" d'Hardelot
 8.20. Orchestra.
 Suite, "The Merchant of Venice" .. Ross
 8.35. Frederick Lake.
 "On Wings of Song" Mendelssohn
 "Where'er You Walk" Handel
 8.45. Constance Wentworth.
 "Weep, Ah, Weep!" ("Le Cid") Massenet
 "One Fine Day" ("Madame Butterfly")
 Puccini
 8.55. Constance Wentworth and Frederick Lake.
 "Sweet Nightingale"Traditional (2)
 9.0. Orchestra.
 "Caucasian Sketches" Ivanov
 9.15. Frederick Lake.
 "Ailes Mine" Newton (1)
 "Mary" Richardson
 9.30-11.0.—Programme *S.B. from London.*

5SC GLASGOW. 420 M.

3.30-4.50.—The Wireless Quartet. F. Elliot
 Dobie (Baritone). Afternoon Topics.
 5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.5.—Weather Forecast for Farmers.
 6.40-6.55.—Mr. Harry Townend. *S.B. from
 Aberdeen.*
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Radio Society Talk. *S.B. from London.*
 Mr. ALLEN S. WALKER. *S.B. from
 London.* Local News.

Spanish Scenes.

THE STATION ORCHESTRA.
 Conducted by H. A. CARRUTHERS.
 A. PARRY GUNN.
 BEATRICE EVELINE (Solo Cello).
 ROY HENDERSON (Baritone).
 7.35.—JOSE CLARASO will give a Talk in
 Spanish on "Old Spain."
 7.47. Orchestra.
 Ballet Music, "Le Cid" Massenet
 8.10. Roy Henderson.
 "The Moorish Flag" .. }
 "Seguidilla of Murcia" De Falla
 "Asturias" }
 8.20. A Personality by A. Parry Gunn.
 "Magdalena."
 8.35. Beatrice Eveline.
 "Elinsenda" Granados
 "Serenate Espagnola" }
 "La Fluvial, El Titit y l'Escar- } Cassado
 bat" }
 "Complanta" }
 8.50. Orchestra.
 "Military March, "La Cubana" } Granados
 Intermezzo from "Goyescas" }
 "Rondalla Española" Cassado
 9.10. Roy Henderson.
 "The Toreador's Song" ("Carmen") Bizet
 9.17. Beatrice Eveline.
 Three Spanish Dances Popper
 9.30-11.0.—Programme *S.B. from London.*

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

WIRELESS PROGRAMME—SATURDAY (Feb. 21st.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2LO LONDON. 365 M.

4.0-5.0.—Time Signal from Greenwich. Concert: The "2LO" Octet, Stuart Macleod (Tenor), Dora Mayfield (Entertainer). "The Lesson of the Old Greek Collections," by Florence Thornton Smith. "A Garden Chat," by D. Eardley Wilmot.

5.30-6.15.—CHILDREN'S CORNER: Music by the Octet. Edith Young, "The Randolph Children's Fireside Tales" (2). Children's News.

6.40-6.55.—Mr. CLIFFORD W. COLLINSON, F.R.G.S., "Surfing at Sydney."

7.0.—TIME SIGNAL FROM BIG BEN. WEATHER FORECAST and 1ST GENERAL NEWS BULLETIN. *S.B. to all Stations.*

Sir THEODORE COOK, Editor of *The Field*, on "Some Sporting Experiences." *S.B. to Aberdeen.*

Local News.

Military Band Programme.

S.B. to Bournemouth.

THE BAND OF H.M. SCOTS GUARDS. (By kind permission of Col. G. C. G. Paynter, C.M.G., D.S.O.).

Director of Music, Lieut. F. W. WOOD.

EDITH ATHEY (Soprano).

FRANK PHILLIPS (Bass Baritone).

PETER YORKE (Syncopation Pianist).

JAY KAYE (Entertainer).

7.30. The Band. March, "Empire" *Elgar* (5)
Overture, "Carnival de Venice" ... *Thomas*
Edith Athey.

"Ave Maria" (adapted to the "Cavalleria Rusticana" Intermezzo) *Mascagni*
"Morning" *Oley Speaks*
Peter Yorke.

"Upright and Grand" *Frank Panta*
"Bouncing on the Keys" *Ploypool*

8.5 (approx.). The Band. Selection, "Poppy" *Jones*
Frank Phillips.

"The Fiddler of Dooney" ... *Dunhill* (14)

"The Fuchsia Tree" *R. Quilter*

"The Sea Gipsy" *Michael Head* (1)

Edith Athey.

"The Market" *Molly Carew*

"Slave Song" *Del Riego*

8.35 (approx.). The Band. Dance Interlude, "Moresque" ... *Coates*
"Petite Suite de Concert" *Colebridge-Taylor*
Peter Yorke.

"Over and Under" *Arnold Johnson*

"The Arm Breaker" *Fred Rose*

9.5 (approx.). Frank Phillips. "Star of Eve" *Wagner*
"Love Went A-Riding" *Bridge*

The Band.

"Spanish Dances" *Mozzkowski*

Folk Song Suite *Vaughan Williams* (1)

9.30.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and 2ND GENERAL NEWS BULLETIN. *S.B. to all Stations.*

Mr. F. M. CARRUTHERS: Soccer Talk, "England's Team." *S.B. to all Stations.*

Local News.

10.0. The Band. Introduction to Act III. and Bridal March ("Lohengrin") *Wagner*
Jay Kaye.

"The Salvage Man" (a Dan Leno Memory).

The Band.

Valse from "The Swan Lake" (Ballet)

Tchaikovsky

10.30.—THE SAVOY ORPHEANS, SAVOY HAVANA BAND, and SELMA FOUR, relayed from the Savoy Hotel, London. *S.B. to all Stations.*

12.0.—Close down.

5IT BIRMINGHAM. 475 M.

3.30-4.30.—Children's Concert.

5.0-5.30.—WOMEN'S CORNER: Onera Merritt-Hawkes, "Further Tales of Staffordshire." Anne Sanders (Contralto).

5.30-6.30.—CHILDREN'S CORNER: Auntie Phil and a further Snooky Adventure.

6.30-6.45.—Teens' Corner: Alice Couchman and Winifred Firth (Pianoforte Duets).

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Mr. GIL EVANS (Welsh International and Inter-Varsity Referee): Rugby Football. Local News.

7.30. A Nigger Minstrel Programme.

Produced under the Direction of

CHARLES HUGHES.

Specialities will be given by

PERCY EDGAR;

JOHN HENRY;

WILLIAM MACREADY;

E. W. PARKER;

JOSEPH WELCH;

THE "5IT" MALE VOICE QUARTET.

With Musical Interludes by

THE STATION ORCHESTRA.

S.B. to "5XX."

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*

Mr. F. M. CARRUTHERS. *S.B. from London.*

Local News and Football Review.

10.0.—THE SAVOY BANDS. *S.B. from London.*

12.0.—Close down.

6BM BOURNEMOUTH. 385 M.

3.55-5.0.—Talk to Women: "Gardening," by George Dance. Ronald Gourley (Entertainer), Winifred Fairlie (Entertainer), Jerome Murphy (Entertainer), Raymond Newell (Baritone).

5.0-6.0.—CHILDREN'S CORNER.

6.0-6.30.—Scholars' Half-Hour: "The Geography of Minerals," by W. F. Perry.

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Admiral W. H. D'OYLY: "The Function of Cruisers during the War, and Commerce Protection" (II).

Local News.

7.30-12.0.—Programme *S.B. from London.*

5WA CARDIFF. 351 M.

3.0-4.0.—Falkman and his Orchestra, relayed from the Capitol Cinema.

4.45-5.15.—"5WA'S" "FIVE O'CLOCKS."

5.15-6.0.—CHILDREN'S CORNER.

6.40-6.55.—Capt. Morrey Salmon, M.C., "Wild Birds of Wales and the West Country—Hints on Wild Bird Photography."

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Mr. F. C. LUKE, Postmaster-Surveyor, Bristol, on "The Highways and Byways of the Post Office."

Local News.

THE PACK OF CARDS CONCERT PARTY.

Under the Direction of

J. HORACE POTTER.

THE STATION ORCHESTRA:

Conductor, WARWICK BRAITHWAITE.

7.30. Orchestra. Selection, "The Bing Boys on Broadway" *Ayer* (6)

"Entry of the Boyards" *Hulvorsen*

7.50. Concert Party.

"We Introduce Ourselves" *Potter and Jukes*

"We Can Sing All Day Long" *Weston and Lee* (7)

"The Song of Harlequin," by the Ace of Hearts *Potter and Jukes*

The Ace of Spades and "The Girl He Left Behind" *Merson* (7)

"The Ant and the Antelope" *Gibson* (13)

The Queen Sings of "The Lark" *Potter and Jukes*

A Few Proverbs are Discussed *Potter and Jukes*

Our Topical Budget *Potter and Jukes*

Orchestra.

Overture, "Coriolanus" *Beethoven*

8.35.—Talk: Local Sports Corner, conducted by L. E. WILLIAMS.

8.45. Concert Party.

Now for a Few "Occurrences" *Potter and Jukes*

The Ace of Diamonds in some Original Variations *F. R. Jukes*

An Altercation about "The Cottage" *Low, arr. Potter* (7)

The Pack of Cards' Version of the Verb, "To Love" *Potter and Jukes*

9.15. Orchestra.

Suite, "From the Countryside" *Coates*

March, "Admirals All" *Bath*

9.30.—WEATHER FORECAST and NEWS. *S.B. from London.*

Mr. F. M. CARRUTHERS. *S.B. from London.*

Local News.

10.0.—THE SAVOY BANDS. *S.B. from London.*

12.0.—Close down.

2ZY MANCHESTER 375 M.

3.30-4.30.—Moses Baritz: Lecture on "Gounod," with Gramophone Illustrations.

4.30-5.0.—WOMEN'S HALF-HOUR: Janey Dugdale (Recitations).

5.0-6.0.—CHILDREN'S CORNER.

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*

Mr. F. STACEY LINTOTT: Weekly Talk on Sport.

Local News.

7.30. "2ZY"

Present

"CINDERELLA."

A Fairy Burlesque Extravaganza,

By *Henry J. Byron.*

Music by the "2ZY" Quartet.

Incidental Music and Vocal Numbers from "Cinderella," by John Farmer (15).

Additional Popular Pantomime Songs.

Prince Poppetti (Prince of Salerno and Pretty Fellows) ... *HYLDA METCALF*

Dandino (His Valet and a Very Deep One) *VICTOR SMYTHE*

Alidoro (His Tutor) *H. B. BRENAN*

Baron Balderdash (A Slightly Damaged Edition of the "Last of the Barons") *D. E. ORMEROD*

Buttoni (A Page of the "Last of the Barons") *TOM WILSON*

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

WIRELESS PROGRAMME—SATURDAY (Feb. 21st.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

Clorinda (Baron's Eldest Daughter)
BETTY ELSMORE
 Thisbe (Baron's Second Daughter)
T. O. BEACHCROFT
 Cinderella (Baron's Youngest Daughter)
NANCY RYNESS
 Fairy Queen (Cinderella's Godmother)
EDITH LEACH
 Honeydew (A Fay) **HELEN McLACHLAN**
 Cinderella's Songs will be sung by
E. HILTON.
 Scene 1.—A Forest Dell.
 Scene 2.—An Apartment at the Baron's.
 Scene 3.—Another Apartment at the Baron's.
 Scene 4.—The Baron's Kitchen.
 Scene 5.—Corridor of the Prince's Palace.
 Scene 6.—Grand Ball Room at the Palace.
 Produced by **VICTOR SMYTHE.**
 Directed by **ERIC FOGG.**
 Music by the "2ZY" QUARTET.

9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
Mr. F. M. CARRUTHERS. *S.B. from London.*
 Local News.

10.0.—Wireless Charade Competition (Final Group).

10.15.—THE SAVOY BANDS. *S.B. from London.*

12.0.—Close down.

5NO NEWCASTLE. 400 M.
 3.45-5.15.—Elsie Downing (Soprano). The Station Septet. Norah Balls: "Women in Greek Drama" (1).
 5.15-6.0.—CHILDREN'S CORNER.
 6.50-7.0.—Poultry Notes.
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
JOHN KENMIR: "Football."
 Local News.

Saturday Pot-Pourri.
BEATRICE EVELINE (Solo 'Cello).
ARTHUR W. HAYES (Dramatic Recital).
HUDSON BARNESLEY (Baritone).
THE STATION ORCHESTRA.
 Conductor, **EDWARD CLARK.**

7.30. Orchestra.
 "Marche Lorraine" *Ganne*

7.45. Beatrice Eveline.
 "Old Italian Air" *Sammartini*
 "Chanson Grecque" *Seligmann*
 "Mary of Argyll" arr. *W. H. Squire* (1)

7.55. Arthur W. Hayes.
 "Justice Starleigh," from "Pickwick Papers."

8.10. Orchestra.
 Selection, "The Geisha" *S. Jones*

8.20. Beatrice Eveline.
 "Traumerei" *Schumann*
 "Rhapsodie" *Popper*
 Old Welsh Air, "David of the White Rock."

8.35. A. W. Hayes.
 "How Bill Adams Won the Battle of Waterloo" *Snazell*

8.50. Hudson Barnesley.
 "Devonshire Cream and Cider"
W. Sanderson (1)
 "The Yeoman's Wedding Song"
Poniatowski (1)

9.0. Orchestra.
 "Flower Dance" ("Nailla") ... *Delibes*

9.10. Hudson Barnesley.
 "The Rolling Stone" *Hamblen* (1)
 "Vulcan's Song" *Gounod* (1)
 "The Carfew" *Monk Gould*

9.20. Orchestra.
 "Down South" *Myddleton*

9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
Mr. F. M. CARRUTHERS. *S.B. from London.*
 Local News.

10.0. TILLEY'S DANCE ORCHESTRA.
 Relayed from
 The Grand Assembly Rooms, Barras Bridge.

11.0.—THE SAVOY BANDS. *S.B. from London.*

12.0.—Close down.

2BD ABERDEEN. 495 M.
 3.30-5.0.—The Wireless Sextet. John Cooper (Baritone). Feminine Topics.
 5.30-6.0.—CHILDREN'S CORNER: Auntie Barrie will sing.
 6.15-6.30.—This Week's Interesting Anniversary (prepared by John Sparke Kirkland): "Cardinal Newman, born February 21st, 1801."
 6.40-6.55.—Mr. Archibald N. Currie, M.A., B.Sc., A.I.C., F.C.S., F.S.A. (Scot.), on "The Master Singer—Ossian."
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
Sir THEODORE COOK. *S.B. from London.*
 Local News.

Everybody's Programme.
GERTRUDE JOHNSON (Soprano).
WINIFRED SMALL (Violin).
MAURICE COLE (Pianoforte).
JUPITER MARS (Entertainer).
THE "2BD" REPERTORY PLAYERS.
 Jupiter Mars
 Will Open the Programme in Stories and Songs.

7.30. Gertrude Johnson.
 "Cradle Me Low" *Broke* (5)
 "Piper of Love" *Carew*

KEY LIST OF MUSIC PUBLISHERS.

1. Boosey and Co.
2. Curwen, J., and Sons, Ltd
3. Herman Darewski Music Publishing Co.
4. Elkin and Co., Ltd.
5. Enoch and Sons.
6. Feldman, B., and Co.
7. Francis, Day and Hunter.
8. Larway, J. H.
9. Lawrence Wright Music Co.
10. Cecil Lennox and Co.
11. Novello and Co., Ltd.
12. Phillips and Page.
13. Reynolds and Co.
14. Stainer and Bell, Ltd.
15. Williams, Joseph, Ltd.
16. Cavendish Music Co.
17. The Anglo-French Music Company, Ltd.
18. Beal, Stuttard and Co., Ltd.
19. Dix, Ltd.
20. W. Paxton and Co., Ltd.
21. Warren and Phillips.
22. Reeder and Walsh.
23. West's, Ltd.
24. Forsyth Bros., Ltd.
25. Bayley and Ferguson.
26. Larcine and Co., Ltd.
27. Duff, Stewart and Co., Ltd.
28. Wilford, Ltd.
29. Dolart and Co.
30. John Blackburn, Ltd.
31. Keith Prowse and Co., Ltd.
32. Worton David, Ltd.
33. A. J. Stasny Music Co., Ltd.
34. Paterson, Sons and Co., Ltd.
35. Reid Bros., Ltd.
36. James S. Kerr.
37. Eclipse Music Publishing Co., Ltd.
38. The B. F. Wood Music Co.

In the Bournemouth programme for Jan. 11th, the B.B.C. inadvertently included a transcription of "O Divine Redeemer" (Gounod). There is no such published transcription of this work and apologies are tendered for the error to Messrs. Phillips and Page, owners of the copyright.

7.55. VIOLIN AND PIANO RECITAL.
 Winifred Small (Solo Violin).
 "Hymn to the Sun" *Rimsky-Korsakov*
 "A Memory of Moscow" *Wieniawski*
 Maurice Cole (Solo Pianoforte).
 "Dream Visions" } *Schumann*
 "Nachtstücke in F" }
 "Gardens in the Rain" *Debussy*
 Winifred Small and Maurice Cole.
 Sonata in D Minor (for Violin and Piano)
Brahms

8.35. "THE CURE."
 A Farce in One Act by
 Arthur Black.
 Cast:
 John McHardy (A Working Man)
GORDON MALCOLM
 Mary McHardy (His Wife) **BETTY ROSS**
 Mrs. Sharpe (A Landlady) **DAISY**
 Mrs. Bruce (A Matron) ... **MONCUB**
 Scene: A Country Roadside.
 Time: Spring.
 Arranged for Broadcast by
W. D. SIMPSON.

8.50. Gertrude Johnson.
 "Oh, Tell Me, Nightingale" ... *Lehmann.*
 "What's In the Air To-day?" ... *Eden* (4)

9.0. Jupiter Mars
 In More Stories and Songs.

9.15. Gertrude Johnson.
 "The Little Damsel" *Novello* (1)
 Waltz Song ("Tom Jones") *German*

9.30-12.0.—Programme *S.B. from London.*

5SC GLASGOW. 420 M.
 3.30-4.50.—The Wireless Quartet. John Beveridge (Blind Entertainer). Afternoon Topics.
 5.15-6.0.—CHILDREN'S CORNER: At Home Day for Children of All Ages.
 6.0-6.5.—Weather Forecast for Farmers.
 6.40-6.55.—Glasgow Radio Society Talk.
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
Mr. J. A. LOVE TINDAL: "Odds and Ends in Life."
 Local News.

Concert and Dance Night.
S.B. to Dundee.
THE STATION ORCHESTRA:
 Conducted by **ISAAC LOSOWSKY.**
DANIEL SEYMOUR
 Will Sing the Vocal Numbers and Choruses.

7.30. Orchestra.
 Fox-trot, "I Loved, I Lost" (23); Fox-trot, "Dream Daddy" (9); Waltz, "One Little Dance" (7); Fox-trot, "Back to Colorado" (26); Fox-trot, "I Can't Help Loving That Girl" (32); Medley, "Savoy Scotch" (9); Waltz, "Rock-a-bye My Baby Blues" (31); One-step, "Sergt. Percy" (6); Fox-trot, "In Between the Showers" (9); Eightsome Reel (36); Fox-trot, "Chili Bom Bom" (7).

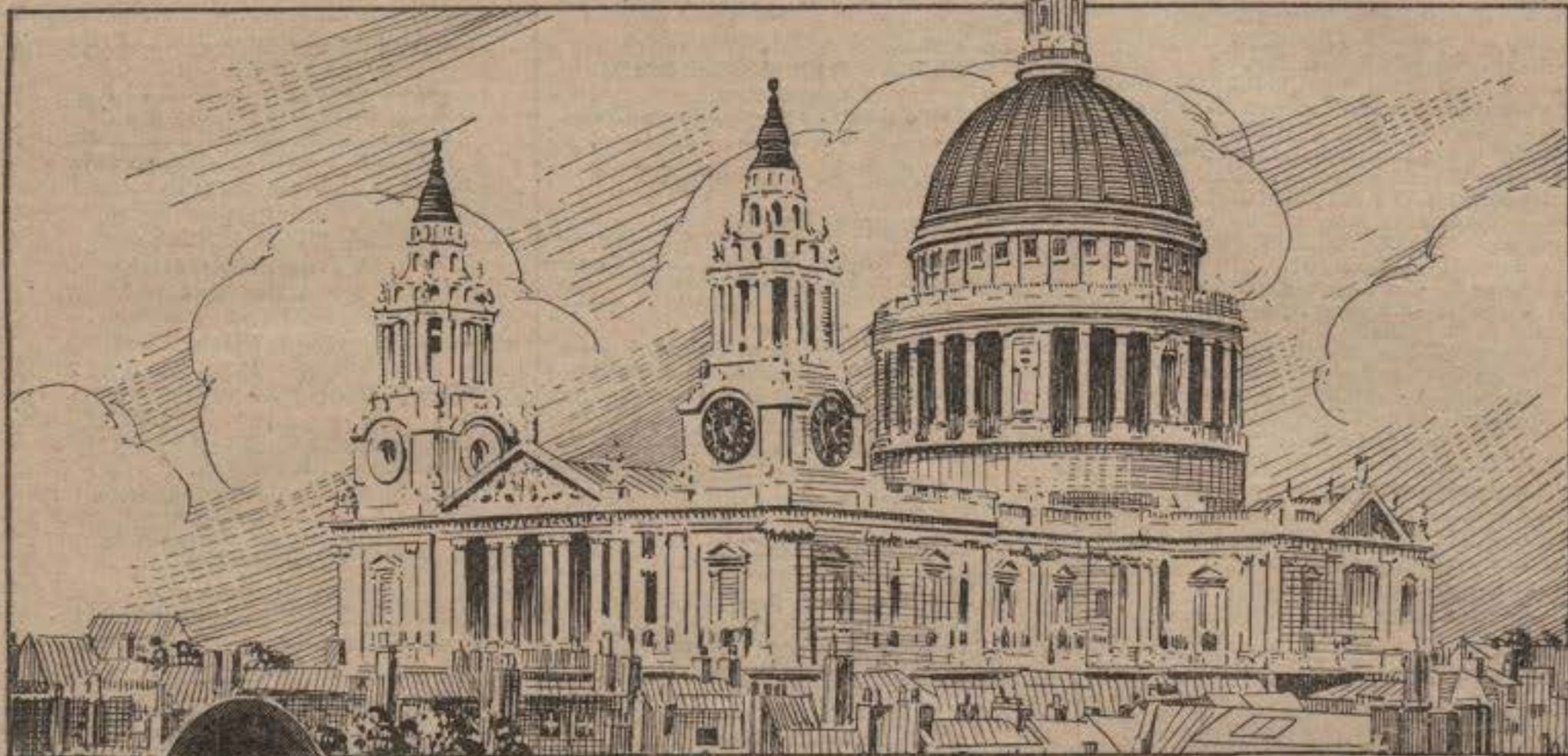
8.0-9.0. **GLASGOW SELECT CHOIR.**
 Concert.
 Relayed from
 St. Andrew's Hall.

9.0. Orchestra.
 One-step, "American Medley" (9); Fox-trot, "You Can Take Me Away from Dixie" (6); Fox-trot, "Just Like a Beautiful Story" (31); Waltz, "First Love" (19); Fox-trot, "When You Think of Me" (23).

9.30-12.0.—Programme *S.B. from London.*

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on this page.

Known all over the World



No. 1508. Ethophone V. (Mark IV.), without valves or batteries, £30, to which must be added £2 10s. Marconi Licence.

Ethovox Loud Speaker, either 120 ohms resistance (No. 203), or 2,000 ohms resistance (No. 204), £5.

SPECIAL DEMONSTRATIONS FOR CITY MEN

For the benefit of business men in the City area, we have arranged for special demonstrations of our apparatus to be held every day next week at 74, Cornhill, London, E.C.4. At this address, the whole range of Burndeft products—which includes everything for radio reception—may be inspected. Any instrument will be demonstrated free of charge during broadcast hours.

Both Objects of British Pride

"A THING of Beauty is a Joy for Ever," wrote the immortal Keats and proof of his words has been found in the instantaneous answer by our nation to the call for funds for the preservation of one of the greatest and most beautiful of our national monuments. The architectural beauty of St. Paul's dominates our city, while its presence is symbolic of the character of our people and the justification of our world leadership. The quality of our apparatus, which has gained for it a world-wide reputation for reliability and efficiency, emboldens us to place our standard model, the Ethophone V. side by side with St. Paul's as yet another object for national pride. It is by the thoroughness and trustworthiness of British workmanship that the "City" stands as it does to-day, the centre and standard of the world of commerce.

The Ethophone V. is a four-valve instrument with several novel features. It is a tuner, receiver and power amplifier combined. Its reception range is very extensive and its owner has the choice of concerts broadcast from many stations. When used with the Ethovox Loud Speaker, the Ethophone V. reproduces speech and music with extraordinary clarity and volume. Demonstrations can be arranged. Write for full particulars.

Purchase Burndeft by its name—substitutes are not the same.

BURNDEFT

WIRELESS APPARATUS

BURNDEFT LTD., Aldine House, Bedford Street, Strand, London, W.C.2.

Telephone: Gerrard 9072. Telegrams: Burndeft, Westrand, London.

LEEDS: 12, Basinghall Street (near City Square).

CARDIFF: 67, Queen Street. NORTHAMPTON: 10, The Drapery.

WIRELESS PROGRAMME—BELFAST (Feb. 15th to Feb. 21st.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the station mentioned.

2BE 435 M.

SUNDAY.

- 3.0-5.0.—Programme S.B. from London.
 5.0-5.30.—CHILDREN'S CORNER. S.B. from Cardiff.
 8.45. THE "2BE" CHAMBER QUARTET.
 Sonata No. 4 in G Minor for Violins, Violoncello and Piano *Handel*
 Largo; Come Alla Breve.
 9.0. The Station Choir.
 Hymn, "Nearer, my God, to Thee."
 Anthem, "God is a Spirit"
Sterndale-Bennett (11)
 The Rev. S. EVANS BOWEN, Moderator of the Non-Subscribing Presbyterian Church: Address.
 Hymn, "Soldiers of Christ, Arise."
 9.30. Quartet.
 Sonata No. 4 in G Minor for Violins, Violoncello and Piano *Handel*
 Concerto for Two Violins and Piano in D Minor *Bach*
 10.0.—WEATHER FORECAST and NEWS. S.B. from London. Local News.
 10.15. Quartet.
 Sonata for Piano and Violoncello in C, Op. 102, No. 1 *Beethoven*
 10.30.—Close down.

MONDAY.

- 4.0-5.0.—The "2BE" Quartet.
 5.30-6.15.—CHILDREN'S CORNER.
 6.40-6.55.—Prof. R. M. Henry of Queen's University, "Our Debt to Greece and Rome."
 7.0.—WEATHER FORECAST and NEWS. S.B. from London.
 Prof. J. E. G. DE MONTMORENCY. S.B. from London. Local News.

A Play

and
Some Modern English Orchestral Music.

THE STATION ORCHESTRA.
 THE BELFAST RADIO PLAYERS.

- 7.30. "AN HOUR IN A MID-VICTORIAN DRAWING-ROOM."
 Originated and Produced by TYRONE POWER.
Characters:
 Mrs. Podbury Pauncefote
 CHARLOTTE TEDLIE
 Alberta (Her Daughter) EVVA KERR
 Clara Twigg KATHLEEN PORTER
 Colonel Tupman Tozer
 ARTHUR MALCOLM
 Frederick Blenkinsop TYRONE POWER
 Albert Pantin T. O. CORRIN
 8.30. Orchestra.
 Three English Dances *Roger Quilter* (1)
 Celtic Rhapsody *Jenkins* (1)
 Two Folk Song Idylls (Founded on Folk Tunes) *G. Butterworth* (14)
 HAROLD HOLT (Solo Oboe).
 Chansonette *Hamilton Harty* (14)
 Orchestra.
 Gavotte, "Tête-à-Tête" *Darlay* (14)
 Rustic Dance ("Airs and Graces")
Manckton
 9.30.—WEATHER FORECAST and NEWS. S.B. from London.
 Mr. GEORGE MACDONALD. S.B. from London. Local News.
 10.0. Orchestra.
 Selection, "The Merry Widow" *Lehar*
 Entr'acte, "Lazy Dance" *Ring*
 National March "Admirals All" *H. Bath*
 10.30.—Close down.

TUESDAY.

- 11.30-12.30.—Gramophone Records.
 4.0-5.30.—Concert: The Station Orchestra.
 Harold Holt (Cor Anglais).
 5.30-6.15.—CHILDREN'S CORNER.
 7.0-8.0.—Programme S.B. from London.

Belfast Postmen's 13th Concert.

- In aid of the Rowland Hill Benevolent Fund.
 Relayed from the Ulster Hall:
 MAY LYMBURN (Contralto).
 HAROLD WILLIAMS (Baritone).
 FRANCESCO TICCIATI (Piano).
 LUIGI GASPARINI (Violoncello).
 8.0. Francesco Ticciati and Luigi Gasparini.
 Sonata in A Major for Piano and Cello *Beethoven*
 Harold Williams.
 "Non Più Andrai" ("Figaro") *Mozart* (11)
 Francesco Ticciati.
 Two Preludes and Fugues (from the 48, Nos. 2 and 3) *Bach*
 Two Rhapsodies, Op. 79 *Brahms*
 May Lymburn.
 "O Don Fatale" ("Don Carlo") ... *Ferdi*
 Luigi Gasparini.
 Sonata in F Major *Boccherini*
 Harold Williams.
 "Devotion" *Strauss*
 "The Two Grenadiers" *Schumann*
 9.30-11.0.—Programme S.B. from London.

WEDNESDAY.

- 4.0-5.0.—The "2BE" Trio.
 5.30-6.15.—CHILDREN'S CORNER.
 7.0.—WEATHER FORECAST and NEWS. S.B. from London.
 Capt. C. W. B. KNIGHT. S.B. from London. Local News.

Symphony Concert.

THE STATION AUGMENTED ORCHESTRA:

- Conducted by E. GODFREY BROWN.
 CARMEN HILL (Mezzo-Soprano).
 BEATRICE EVELINE (Solo Violoncello).
 T. O. CORRIN (at the Piano).
 7.30. Orchestra.
 Rhapsodic Dance, "The Bamboula" *Coleridge-Taylor*
 Suite from the "Music for the Royal Fireworks" *Handel, arr. Harty*
 Carmen Hill.
 Aria with Orchestra, "Voi che Sapete" ("Nozze di Figaro") *Mozart*
 Beatrice Eveline.
 "Variations Symphoniques" *Boettmann*
 Orchestra.
 Overture, "Der Freischütz" *Weber*
 Carmen Hill.
 "In Summer Time on Bredon" *Graham-Peel*
 "Loveliest of Trees" *Graham-Peel*
 "Soldier, I Wish You Well" *Graham-Peel* (1)
 "Almond, Wild Almond" *Beatrice Eveline*
 "Old Italian Air" *Sammartini-Squire*
 "Idylle" *Ethel Barnes* (15)
 "Villanelle" *Pianelli-Salmon*
 Orchestra.
 Irish Suite, Op. 55, No. 1 *Esposito*
 Prelude in C Sharp Minor *Rachmaninov, arr. Sir Henry Wood*
 9.30.—WEATHER FORECAST and NEWS. S.B. from London.
 British Drama League Lecture Recital. S.B. from London.
 Royal Horticultural Society Talk. S.B. from London. Local News.
 10.15. Orchestra.
 Suite, "Crown of India" *Elgar*
 10.30.—Close down.

THURSDAY.

- 4.0-5.0.—The "2BE" Quintet.
 5.30-6.15.—CHILDREN'S CORNER.
 6.40-6.55.—Monthly Scout Bulletin.
 7.0.—WEATHER FORECAST and NEWS. S.B. from London.
 Radio Society Talk. S.B. from London.
 Mr. ALLEN S. WALKER. S.B. from London. Local News.

"High and Low Brow."

THE STATION ORCHESTRA.
 HUGO THOMPSON (Baritone).
 WINIFRED SMALL (Violin).
 MAURICE COLE (Pianoforte).

- 7.35. Orchestra.
 Valse "Burghers' Songs" *Strauss*
 Selection, "The Arcadians"
Manckton and Tatbot
 Winifred Small.
 Gavotte *Bach-Kreisler*
 Aria *Tenaglio*
 Polichinelle *Kreisler*
 Chinese Dance *Kreisler*
 Hugo Thompson.
 "Belshazzar" *Schumann*
 "The Vagabond" *F. Williams* (1)
 "From Inverness to Fell" *Fisher*
 Winifred Small and Maurice Cole.
 Sonata in D Minor for Violin and Piano *John Ireland*
 Hugo Thompson.
 "The Fortune Hunter" *Willby*
 "Life is Nothing Without Money" ("Fidelio") *Beethoven*
 "When the King Went Forth to War" *Kocneman*
 Maurice Cole.
 "Arietta" (17th Century) *Leo*
 "Rhapsody in B Minor" *Brahms*
 Orchestra.
 Selection, "Véronique" *Massenet*
 Suite, "Monsieur Beaucaire" *Rosse*
 March, "Old Comrades" *Teike*
 9.30-11.0.—Programme S.B. from London.

FRIDAY.

- 11.30-12.30.—Gramophone Records.
 2.50-3.0.—School Transmission: E. Godfrey Brown, "Appreciation of Music."
 4.0-5.30.—The Station Orchestra. Dorothy Camlin (Soprano).
 6.40-6.55.—Ministry of Agriculture's Fortnightly Bulletin. S.B. from London.
 Radio Association of Northern Ireland Bulletin.
 7.0-10.30.—Programme S.B. from London.

SATURDAY.

- 4.0-5.0.—The "2BE" Trio. E. J. Harris (Solo Clarinet).
 5.30-6.15.—CHILDREN'S CORNER.
 7.0.—WEATHER FORECAST and NEWS. S.B. from London.
 Mr. R. H. COULTER: Talk on "Hockey." Local News.

Popular Programme.

- THE CRESCENT MALE VOICE CHOIR:
 Conductor, HAMILTON HOGG.
 ERNEST A. A. STONELEY (Solo Violin).
 PAULINE BARKER (Solo Harp).
 JOHN A. BURNSIDE (Raconteur).
 THE STATION ORCHESTRA.
 7.30. Orchestra.
 March, "Entry of the Boyards" *Halvorsen*
 Overture, "Mirella" *Gounod*
 Selection, "Looking Backward" *Finck*
 Choir.
 "Soldier, Rest" *Thomson* (2)
 "To Arms" *J. H. Maunders* (2)
 "Ye Banks and Braes" } *Traditional* (2)
 "Drink to Me Only" }
 John A. Burnside.
 Some Anecdotes.
 Orchestra.
 "In a Persian Market" *Ketelbey*
 Choir.
 "The Wanderer's Song" *Franz Abt* (2)
 "Let the Hills Resound" *Richards* (11)
 "D'Ye Ken John Peel" *arr. West*
 Ernest A. A. Stoneley.
 "Scottish Fantasia" *Stoneley*
 John A. Burnside.
 Some Anecdotes.
 Pauline Barker.
 "Spinning Wheel" *Thomas*
 Orchestra.
 "Military Two-step" *Gould-Verachoyte*
 9.30-12.0.—Programme S.B. from London.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 357.

"A Page Torn From Fiction."

The Tragedy of Schumann. By R. D. S. McMillan.



ROBERT SCHUMANN.

There is material for the pen of a great dramatist—or librettist—in the life of Schumann. The drama is there, awaiting the magic touch of some master like Balzac to make it jump once more to life with all its anarchy of emotion.

Let us, dispassionately, examine the facts. The son of a bookseller, Robert Schumann was born at Zwickau, in Saxony, on June 8th, 1810. As a child, he showed unusual talent for music, and when he was nine, the local music teacher ventured the opinion that the boy had no further need for his services in tuition. He early displayed a literary bent, too; but nearly all his activities were centred in music.

When he was nearly eighteen, came a deviation from the path that was to lead him to glory.

In this year—1828—he went to the University of Leipzig to study law at the earnest wish of his mother. He was frankly antipathetic to the law as a profession. His mother, on the other hand—his father was now dead—believed that music would provide only a precarious livelihood. But the youth could not stop his ears to the call of his art, and his mother at last gave way under the persuasions of others as well as her son's. One of his "supporters" in this event was Wieck, a music teacher, who became his greatest enemy, and—how the pendulum swings!—later still, his father-in-law.

His Will to Conquer.

As his first letter from Leipzig shows, Schumann had struggled with his own ambitions:—

Read, not only this one, but all my letters, beloved mother (he writes), with the same kind, loving eyes, unclouded by anger. . . . After my few days here, I still feel quite well, though not quite happy. . . . Chilly jurisprudence, with its ice-cold definitions, would crush the life out of me from the start. Thus I struggle endlessly with myself and look in vain for someone to tell me what to do. And yet—there is no help for it; I must choose law. I will conquer. . . .

While in Leipzig he took some lessons from Wieck, and when, in 1830, it was decided that he should abandon the law, he returned again to the university town to study under this teacher. He pinned his faith to his own ability as a virtuoso of the piano, but an invention which he employed for strengthening the fingers resulted in disaster, his right hand becoming crippled. If he wished to pursue his art, therefore, he could do so only as a composer, and to this he turned with unabated eagerness.

An Ideal Romance.

When Schumann had first gone to the Wieck household, Clara Wieck was a child of nine. "If ever I marry, it will be an Englishwoman," the young composer wrote to his mother in 1830; but as the years passed, he changed his mind; he centred his affections in his teacher's daughter. Clara Wieck became a great pianist; and when Schumann was still a struggler on the rough road to fame, she had already reached her goal.

Her father may have borne this in mind and looked upon Schumann's marital ambition as too lofty, if not impudent, in one who had comparatively poor prospects of success (as it seemed); or it may have been jealousy by which he was actuated. What he did, at any rate, was to oppose the union with might and

main. When he discovered that he could not put an end to the romance, he openly slandered and abused Schumann. Of course, Robert and Clara had to part, but they wrote many letters to one another—letters in which we can trace the joys and sorrows of the two who are the ideal lovers of musical history.

They were married at last in 1840, but not before Schumann had obtained a legal decree of the court to enable them to dispense with her parent's consent to the marriage.

This same year saw some remarkable compositions from Schumann: particularly his "Lieder," upon which, as Sir Landon Ronald has remarked, the fame of the composer will probably ultimately rest. He was supremely happy, and he let the world know it! More than one hundred and thirty songs he wrote in 1840, many of them being settings of Heinrich Heine's poems. He had, of course, a wife to encourage him—a wife who, a genius herself, was yet "astonished" at his mind, at all the treasures it contains." Clara Schumann interpreted his work with heart and brain.

The Tragic Twilight.

It was in the following year that Schumann wrote three symphonies, the first, in B Flat ("Spring"), being composed under the guidance of Mendelssohn. He also wrote a striking movement for piano and orchestra, which afterwards became the first movement of the pianoforte concerto in A Minor. After this came the Pianoforte Quintet, one of the most exquisite examples of chamber music, which was played by his wife to enthusiastic audiences throughout Europe. There is, too, his beautiful overture to *Manfred*.

Schumann himself knew that his brain was becoming affected, and in the lucid intervals when the curtain of night was descending upon his intellect he dwelt upon the necessity of his going into an asylum. The tragic twilight began to deepen at the beginning of 1854, and then came the final warning.

Saved by Fishermen.

He had been suffering from hallucinations, and at last he had to lay aside his work. He hoped that he would conquer the malady, but it grew upon him until he was an invalid who had to be watched almost constantly. Then one day he stole out of his room and, going straight to the Rhine (this was in Dusseldorf), walked on to the middle of the bridge and flung himself into the water. Some fishermen, by good luck, had seen him, and a boat soon went to his rescue. He was taken to an asylum, which he never left.

From nothing he had raised himself to glory that was near the stars, only to find himself, when at the height of his fame, a wanderer in a wilderness of dreadful night. He died in the asylum in July, 1856, when he was forty-six years of age.

Outspoken, But Shy.

Schumann was a romantic, and an incurably shy one at that—at least, in his personality. As a critic he was fearlessly outspoken. It was one of his dearest wishes that he might visit England with his wife; but the dream was never realized, and it was left to Madame Schumann alone to popularize her husband's works in this country.

In one of his letters to his mother as a boy of eighteen Schumann wrote: "Thus it is ever in life. The aims we once pursued no longer satisfy us; we aim, we strive, we aspire, until sight fails and mind and body find rest in the grave."

But, while a man's work does not always live after him, such genius as Schumann's flourishes for all time.

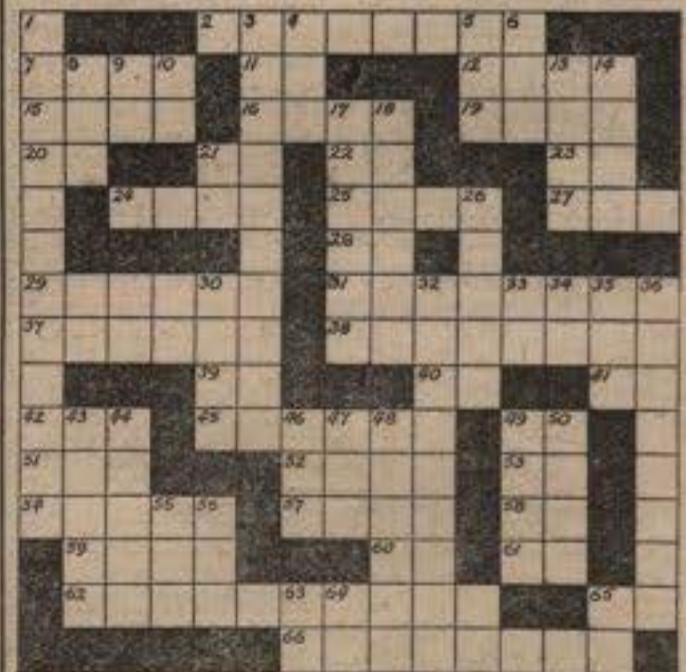
Our Cross-Word Competition.

Prize-Winners and a New Puzzle.

There was a large number of excellent entries for *The Radio Times* Cross-Word Competition, and we have pleasure in announcing that prizes of £4 4s. each have been awarded to: Mr. A. Trickett, 12, Winfield Mount, Brackman Lane, Leeds, Yorks, and the Rev. W. B. Stewart, 38, Clovelly Street, Marland, Rochdale, Lanes., for submitting the correct solutions to the Cross-Word Puzzle which appeared in our issue of January 23rd, and for submitting the best puzzles in accordance with the conditions.

Apparently, there are various claimants for the "honour" of having introduced Cross-Word Puzzles into England. In addition to Mr. Wilson McCarty, author of the book, "Cross-Word Puzzles," who spoke recently to all listeners, there is Mr. Michael Davis, whose early puzzles were accepted about the same time as those of Mr. McCarty. It is believed, however, that certain members of the British Association, who attended the meeting of that body in Toronto last summer, are the real culprits.

The following is Mr. Trickett's puzzle:—



CLUES.

ACROSS.

2. Unsolicited in studios.
7. Flower.
11. Place where.
12. Essential to "listeners-in."
15. Shapes of baked clay.
16. Bird.
19. Not yet rent in twain.
20. Common preposition.
21. Editor of *The Radio Times* (abbrev.).
22. Not quite all.
23. Musical body (abbrev.).
24. Priests of the Persians.
25. Wireless programme never does.
27. And so on.
28. Almost president (abbrev.).
29. Poor songs best left.
31. Flavoured.
37. Particular kind of fruit.
38. Withdrawing.
39. 365.
40. Railroad (abbrev.).
41. To perform.
42. Receptacle.
45. To blind.
49. The boss.
51. Large amount of water.
52. Girl's name.
53. District of London.
54. Recently lost.
57. Joining.
58. Part of verb "to be."
59. Famous gallery.
60. Abbreviated neckwear.
61. Note in music.
62. Superficial knowledge.
65. Next to.
66. That which oscillators are in.

DOWN.

1. Howling success.
3. Railway station, London.
4. Turn over.
5. Water in bulk.
6. Not to do, with headphones on.
8. Mentioned in "Exchange Market" News.
9. Illness curtailed.
10. Semi East.
13. City in Italy.
14. Result of bad stoking.
17. Some wireless sets possess.
18. Pass away quietly.
21. For example.
26. Glad to see the end of Rodeo.
30. Small river about 75 miles from London.
32. What wireless singers must not be guilty of.
33. Two-thirds of thirty-five.
34. India's brown (abbrev.).
35. Part of programme we dislike.
36. Tests wireless talent.
43. Brain does when listening in.
44. Biblical name with "H" in middle.
46. Shortened goods.
47. Three vowels.
48. Free.
49. Fruit.
50. Highest point.
55. Greek letter.
56. Something necessary before you can listen in.
63. Edition.
64. Rest without peace.
65. To exist.

We shall publish the solution to this and Mr. Stewart's puzzle in our next issue.

The Gifted Amateur.

Written and Illustrated by WILL OWEN.

SOME men are born mechanics—equal to any professional—others, like my friend Blurton, retain their amateur status all their days and cause endless trouble in the home.

There remains, however, a small minority, an *intelligentia*, so to speak, brainy in every way except in the matter of applied mechanics, which realizing its limitations, calls in a man when anything has to be done.

I am of the *intelligentia* and that is why, when I decided to have a two valve set installed, I called in Mr. Barty.

Just a Bit of Wire.

Mr. Barty advised a two valve set—no outdoor aerial—just a bit of wire from the bell-push to the fireplace all complete for a tenner.

I explained to my expert that what I wanted was something that would enable me to hear the London programme by merely pushing a button, something that could not by any possibility ever get out of order or need attention, as I was not good at mechanics.

He said he understood perfectly—what I wanted was something absolutely fool-proof.

The maid was in the room at the time—the least thing sets her laughing—and I could not help feeling that Mr. Barty might have expressed himself better.

To make quite sure that I should have no trouble, Mr. Barty added a few gadgets and things to the set and the original estimate was rather more than doubled.

To cut a long story short, the set was duly installed and had been working quite satisfactorily for a week.

We were listening to a very interesting talk on Coke when Blurton dropped in to see how we were getting on and, of course, we had to remove the earphones and missed the best part.

A Helping Hand.

It transpired that Blurton had taken his batteries to be re-charged and had seized the opportunity to come round and help us if we happened to be in any difficulty.

We invited him to put on the spare 'phones, but he did not approve of earphones. Permanent injury to the drum, due to ear flattening, was one of the minor ills, and there was quite a number of really serious drawbacks to their use.

"What you want is a loud speaker with a

good amplifier—you can hear mine from the end of the street," he said, and seemed to be proud of it.

A Distant Yodelling.

He was very persistent about the loud speaker and, for the sake of peace and quietness, I promised to get one exactly like his.

We persuaded him presently to put on the earphones and he sat down beside the box and before I knew what was happening, he was turning one of the knobs and the Coke talk died away to a wheezy whistle.

Mr. Barty's last words to me when he left had been that we were on no account to touch the knobs, as the tuning was a very delicate operation and would never be quite the same again.

Until that moment, the set had never been touched, except for switching on and off, and everything had gone smoothly; but by this

about them. Some of us," he continued, "are investigating, probing the darkness, lifting the curtain ever so slightly and, before long, my friend, I hope the golden dawn—"

I know Blurton when he gets started in this way and asked him to put us back on to the Coke man, but he said he was trying to get Cardiff, murmuring something about wavelengths and low frequency amplification.

Back to London.

I told him I would prefer Cromer, but he declared that impossible.

He was not successful in getting Cardiff and tried Bournemouth, Aberdeen, and ships at sea. He was very keen on the ships at sea, as he understands Morse and told us that he had listened quite recently to a conversation between two battleships, concerning the Captain's pipe that had been left behind in the ward-room.

He admitted at last that the atmospherics were too strong and he would just put us back to London.

He turned the knobs and gave them every chance and opened the box to see that the valves had not exploded. Then he asked me if I was sure of my earth. I hadn't the foggiest notion why he wanted to know, but assured him we were on gravel.

He unfastened every wire that could be unfastened and fastened most of them up again, but could discover nothing and wondered at last whether the batteries had run down.

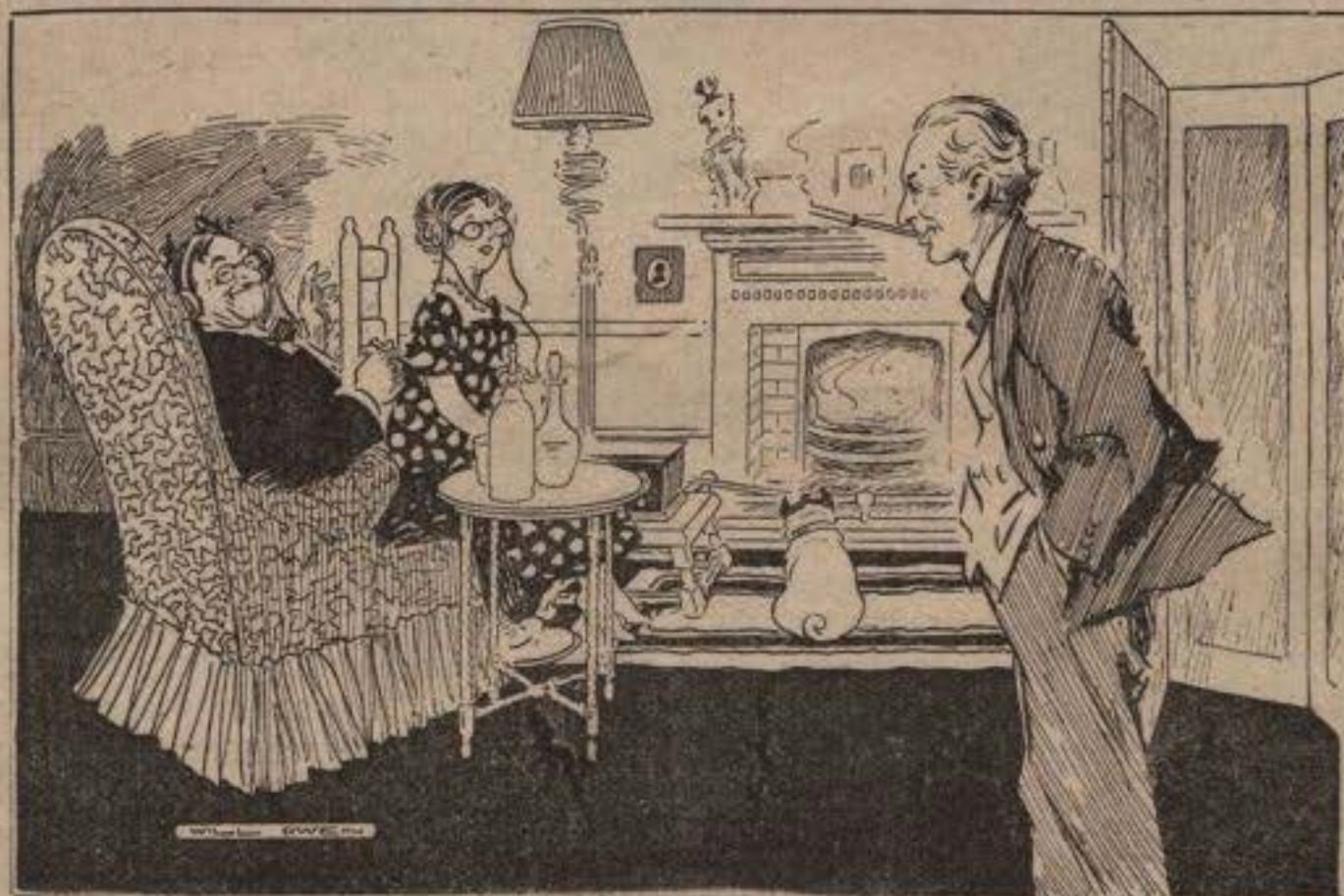
The bulbs were still glowing, but appeared to me a trifle anæmic, and I was not surprised.

There was a number of wires lying loose that had not been loose when Blurton began and he tried connecting them up to anything handy.

The Reward of Perseverance.

He was very persevering with the wires and one that had somehow got around his throat and looked like strangling him, he fitted eventually to the electric standard, when the main fused immediately and we were left in utter darkness.

As it was impossible for him to help us any more, I lighted him to the door with a match and he said he would be round again on the following evening, but I explained that we were booked up every night for the next month.



We were listening to a very interesting talk on Coke when Blurton dropped in.

time, Blurton had twisted all the knobs and the thing was buzzing like a bee.

It wasn't like a bee all the time, as occasionally it would dwindle away to a distant yodelling—possibly, a shepherd in the Bernese Oberland calling the cattle home—at other times a sharper note was heard, suggestive of the peewit, but we could never be quite sure.

We got rather tired of the buzzing after a time and I asked Blurton what caused it.

"Atmospherics," he said, waving the hand that was not busy with the knobs.

"Why haven't we ever heard it before?" I asked.

"There you have me," he said; "they come—they go—but at present we know very little

ORCHESTRAL LECTURE-CONCERTS.

THE last of the series of Orchestral Lecture-Concerts for school children, given under the auspices of the Education Authority for Edinburgh, will be relayed from the Usher Hall at 4.30 p.m., on Friday, February 27th. These concerts have proved popular. The lecturer and conductor will be Mr. Herbert Wiseman, M.A., Director of Music to the Education Authority, Edinburgh.

SONGS IN GAELIC.

THE GAELIC CHOIR will give the programme at the Dundee Station on Friday, February 27th. About sixty strong, they will submit a number of part songs and solos in Gaelic and English. This Choir were the winners of the Lovat and Tullibardine Challenge Shield at Edinburgh in 1919, and at Fort William in 1922, and the winners of the Macdonald Trophy at Dundee Musical Festival in 1923 and 1924.

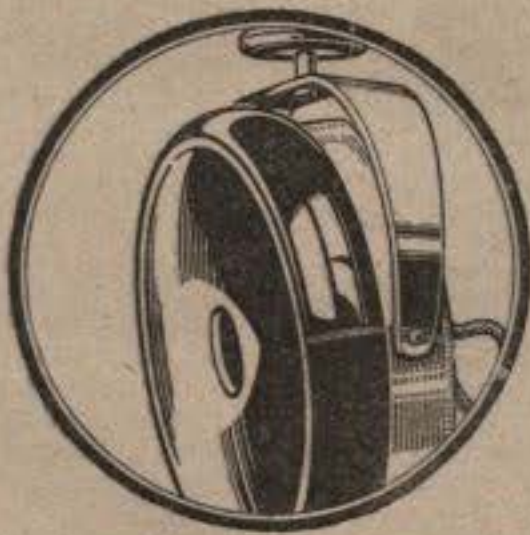
PIANIST AND COMPOSER.

THE band of the 2nd Batt. South Staffordshire Regiment will contribute popular music at the Plymouth Station on February 27th.

During the same evening Miss Constance Holt-Finney will give half an hour's recital of her own compositions, including pianoforte solos by herself. She will be supported by Miss May Burleigh (soprano), Miss Winifred Cole (contralto), and Mr. Herbert Wellington (baritone).



All Brandes products carry our official money-back guarantee, enabling you to return them within 10 days if dissatisfied. This really means a free trial.



.....every one of these advertisements will show an added advantage in the construction of Brandes Headphones.

The ebonite cap of the earpiece is screwed on by special apparatus to a marked degree of tightness. It is almost impossible to unscrew it without a wrench. This means more accurate clearance distance between the diaphragm and the faces of the pole pieces and guards against distortion. But what is more important, it defeats any casual attempt to unscrew the caps which, once done, destroys the Matched Tone adjustment.

British Manufacture.
(B.B.C. Stamped.)

When we assemble the *Matched Tone* Headphones we select, by means of a special apparatus, two earpieces whose electrical properties closely agree. One by one the earpieces are tested by vibrating the diaphragm of a fixed telephone receiver with an oscillating current. The vibration is transmitted by a closed column of air to the diaphragm of the one on test which is adjusted immediately beneath the permanently fixed example. It then vibrates in sympathy, thus causing a current to flow through the bobbins. The volume of the current is indicated on the dial of the testing apparatus. Any two 'phones which closely agree are matched and are assembled in one headphone, hence *Matched Tone*. This means greater purity, strength and sensitivity. Obviously, the joint energies of both earpieces in perfect unison means redoubled effectiveness in all these three qualities. Ask your Dealer for Brandes.



The Table-Talker is another Brandes quality product at moderate price. Designed to meet the need for a simple radio loud-speaking device to entertain a group of people in an average size room, its full round tones are wonderfully clear and pleasing. The horn is matched to the unit so that the air resistance produced will exactly balance the mechanical power of the diaphragm. This means a beautiful sound-balance. Gracefully simple of line, it is finished a shade of neutral brown and is twenty-one inches high. 42/-

Brandes

The Name to know in Radio

25/-

Superior "Matched Tone" Headphones

TRADE MARK

High-Power Station Programme. 5XX. 1600 M.

SUNDAY, February 15th.

3.0-5.0.—Programme S.B. from London.
5.0-5.30.—CHILDREN'S CORNER. S.B. from Cardiff.
8.30-10.0.—Programme S.B. from Newcastle.
10.0-10.30.—Programme S.B. from London.

MONDAY, Feb. 16th, and WEDNESDAY, Feb. 18th.

5.30-6.15.—CHILDREN'S CORNER.
8.40-10.30.—Programme S.B. from London.

TUESDAY, February 17th.

5.30-6.15.—CHILDREN'S CORNER.
6.40-7.30.—Programme S.B. from London.

Operatic Programme.

GWLADYS NAISH (Soprano).
THE WIRELESS OPERATIC CHORUS:

THE WIRELESS SYMPHONY ORCHESTRA:

Conducted by DAN GODFREY, Junr.
7.30. Chorus, with Orchestra.

March and Chorus, "Hail, Bright Abode" ("Tannhäuser") Wagner

Overture, "Der Freischütz" Weber
Gwladys Naish.

Bell Song "Lakmé" Delibes
7.55 (approx.). The Orchestra.

Ballet Music, "Anacreon" Cherubini
Chorus, with Orchestra.

Cigarette Chorus, ("Carmen") Bizet

Bell Chorus ("Pagliacci") .. Leoncavallo

8.20 (approx.). The Orchestra.
Ballet Music, "Hérodiade" Massenet

Gwladys Naish.
Recitative and Aria, "Ah, fors e' lui" ("Traviata") Verdi

Gwladys Naish, with Chorus.
"Easter Hymn" ("Cavalleria Rusticana")

8.15 (approx.). The Orchestra.
Sute No. 1 ("Carmen") Bizet

Chorus, with Orchestra.
Kermesse Scene ("Faust") Gounod

Gwladys Naish.
"Shadow Song" ("Dinorah") Meyerbeer

Chorus, with Orchestra.
Overture, "Rienzi" Wagner

9.30-10.0.—Programme S.B. from London.

10.0. Chorus, with Orchestra.
Introduction to Act III and Bridal Chorus ("Lohengrin") Wagner

The Orchestra.
Overture, "William Tell" Rossini

Chorus, with Orchestra.
"Soldiers' Chorus" ("Faust") .. Gounod

10.30.—SAVOY BANDS. S.B. from London.

11.0.—Close down.

THURSDAY, February 19th.

5.30-8.0.—Programme S.B. from London.

8.0. Music and Cabaret relayed from

NEW PRINCES RESTAURANT.

9.0. **Pianoforte Recital.**
SAPELLNIKOFF.

Sonata in B Flat Minor Chopin
9.30-11.0.—Programme S.B. from London.

FRIDAY, February 20th.

5.30-6.15.—CHILDREN'S CORNER.

6.40-9.40.—Programme S.B. from London.

9.40.—Speeches by The Rt. Hon. WINSTON CHURCHILL, M.P., The Rt. Hon. AUSTEN CHAMBERLAIN, M.P., The Hon. P. C. LARKIN, Sir FRANCIS FLOUD, K.C.B., Sir CLAUD SCHUSTER, K.C.B., C.V.O., K.C., at the CIVIL SERVICE DINNER. Relayed from the Connaught Rooms, Holborn Restaurant, London.

10.15-10.30.—Programme S.B. from London.

SATURDAY, February 21st.

5.30-6.15.—CHILDREN'S CORNER.

6.40-7.30.—Programme S.B. from London.

7.30-9.30.—Programme S.B. from Birmingham.

9.30-12.0.—Programme S.B. from London.

Dundee Programme. 2DE 331 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30.—Programme S.B. from London.
6.30-7.30.—Service conducted by the Rev. HARCOURT M. DAVIDSON, V.D., relayed from St. Mary's Church.
9.0-10.45.—B.N.O.C. Concert. S.B. from Liverpool.

MONDAY, Feb. 16th, and WEDNESDAY, Feb. 18th.

3.30-4.30.—Kinnaird Hall Picture House Orchestra.
4.30-5.0.—Organ Recital. (18th.)
5.0-5.15.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Boys' Brigade Talk. (18th.)
7.0-11.30.—Programme S.B. from Glasgow.

TUESDAY, February 17th.

5.15-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Boy Scouts' Talk.
7.0-11.0.—Programme S.B. from London.

THURSDAY, February 19th.

4.30-5.0. New Gramophone Records.
6.0-6.30. CHILDREN'S CORNER.
5.15-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Mr. Harry Townend. S.B. from Aberdeen.
7.0-11.0.—Programme S.B. from London.

FRIDAY, February 20th.

2.30-3.30.—Kinnaird Hall Picture House Orchestra.
5.0-5.15.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Ministry of Agriculture's Fortnightly Bulletin. S.B. from London.
7.0-7.30.—Programme S.B. from London.

Dramatic Night.

7.30. CRUE DAVIDSON (Contralto).
"Still as the Night" Carl Bohm
"Elegie" Massenet
"Spring Waters" Rachmaninov

THE HARTLEY TRIO.

"Nell Gwyn Dances" German

7.55. THE "2DE" REPERTORY COMPANY.
"THE NINTH WALTZ."
(R. C. Carton).

Produced by R. E. Kingsley.
Incidental Music by the Trio.

JENNY FORRESTER (Soprano).
Song Cycle, "Pastels" Ronald (5)

"The Wind from the Sea"; "Sing No More"; "Love is a Sickness"; "Love in the Woods."

8.35. Crue Davidson.
"Sea Fever" J. Ireland

"Three Fishers" Hullah

"Mighty Lak' a Rose" Nevin

"O Ship of My Delight" Phillips

REGINALD WHITEHEAD (Bass).
"Hear Me, Ye Winds and Waves" Handel

"I Am a Roamer" Mendelssohn

8.55. Jenny Forrester.
"Waltz Song" ("Merrie England") German

"Moonlight" Katie Moss

"There's a Fair on the Green" Cresswell

The Trio.
"Cavalleria Rusticana" Mascagni-Tavan

Reginald Whitehead.
"The Harp that Once Through Tara's Halls" Ancient Air

"Love, Could I Only Tell Thee" ... Capel

"In Sheltered Vale" Clarke (25)

9.30-9.55.—Programme S.B. from London.
Local News and Station Topics by the Station Director.

10.5 (approx.). Repertory Company.
"AN OBJECT-LESSON."
(Frederick Sarjeant.)

Produced by R. E. Kingsley.
The Trio.
10.25. Selection, "Madame Pompadour" Leo Fall

10.35.—Close down.

SATURDAY, February 21st.

5.15-6.0.—CHILDREN'S CORNER.

7.0-12.0.—Programme S.B. from Glasgow.

Edinburgh Programme. 2EH 465 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30. Programmes S.B. from London.
8.30-9.0.)
9.0-10.45.—B.N.O.C. Concert. S.B. from Liverpool.

MONDAY, February 16th.

3.0-4.0.—The Station Pianoforte Trio.
5.0-6.0.—CHILDREN'S CORNER.
7.0-9.40.—Programme S.B. from Glasgow.
9.40.—Mr. GEORGE MACDONALD, C.B., LL.D., F.B.A., on "Roman Britain" (7). S.B. to Glasgow, Aberdeen, Dundee and Belfast.
Local News.
10.0-10.30.—Programme S.B. from Glasgow.

TUESDAY, February 17th.

11.30-12.30.—Gramophone Records.
3.0-4.0.—The Station Pianoforte Trio.
5.0-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Prof. Charles Siroloa, LL.D., Ph.D., F.R.S.E., etc., on "The Art and Cost of Living in France."
7.0-11.0.—Programme S.B. from London.

WEDNESDAY, February 18th.

2.30-3.30.—The Station Pianoforte Trio.
3.30-4.0.—Talk to Schools: Mr. J. C. SMITH, C.B.E., "Great Stories of the World."
5.0-6.0.—CHILDREN'S CORNER.
7.0-10.10.—Programme S.B. from Glasgow.
10.10.—Mr. J. S. CHISHOLM: Horticultural Talk.
Local News.
10.20-10.30.—Programme S.B. from Glasgow.
10.30-12.0.—"THE ROMANY REVELLERS from the Dunedin Palsis de Danse."

THURSDAY, February 19th.

11.30-12.30.—Gramophone Records.
3.0-4.0.—The Station Pianoforte Trio.
5.0-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Mr. Harry Townend. S.B. from Aberdeen.
7.0-11.0.—Programme S.B. from London.

FRIDAY, February 20th.

2.30-3.30.—The Station Pianoforte Trio.
3.30-4.0.—Talk to Schools: Mr. H. MORTIMER BATTEN, F.Z.S., on "The Preservation of Birds and Beasts."
5.15-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Ministry of Agriculture's Fortnightly Bulletin. S.B. from London.
7.0.—WEATHER FORECAST and NEWS. S.B. from London.
PERCY SCHOLES. S.B. from London.
Local News.

A Mixed Programme.

BETTY GOULD (Soprano).
ARTHUR W. HAYES (Reciter).
PAUL DELLA TORRE (Solo Pianoforte).
THE BRITISH LEGION MILITARY BAND.
Paul Della Torre.
7.30. Sonata in C Minor, Op. 13 ("Pathetic") (Three Movements) Beethoven

7.50. Betty Gould.
Old English Songs Purcell

"When I Am Laid in Earth."
"I Attempt from Love's Sickness to Fly."
"Come Unto These Yellow Sands."

8.0. Arthur W. Hayes.
Selections from the Works of Charles Dickens.

8.15. Band.
Overture, "Light Cavalry" Suppe

Highland Patrol, "The Wee MacGregor" Amers

8.30. Paul Della Torre.
Impromptu No. 3 in G Flat Chopin

"The Maiden's Wish" Chopin-Liszt

Prelude in D Flat Paul Della Torre

8.42. Betty Gould.
Modern English Songs.

"The Little Damozel" Novello (1)

"Jill" A. Calder (14)
"Are My Lanterns Shining?" ("The Rebel Maid") Montague Phillips

(Continued on page 379.)

B.T.H. LOUD SPEAKERS

B.T.H. Loud Speakers are soundly constructed, both mechanically and electrically, and reproduce speech and music without distortion or undue resonance. They give the greatest volume of sound that it is possible to obtain without impairing the tone. The Form C instruments are provided with adjustable air-gaps. The magnets, of cobalt steel, retain their magnetism permanently, and are unaffected by changes of polarity.



Form C1

FORM C1
The ideal loud speaker for a small room
Price £2 10 0

FORM C2
A less utilitarian finished instrument designed for general use in or out of doors
Price £5 0 0

FORM C3
A gramophone attachment having the same element as the Form C1 Loud Speaker
Price £2 2 0

FORM D
A super-sensitive electro-dynamic pattern suitable for large halls or outdoor use
Price £9 10 0

Obtainable from all Electricians and Wireless Dealers

The British Thomson-Houston Co Ltd

Works: Coventry. Office: Crown House, Aldwych, W.C.2

Branches at: Belfast, Birmingham, Bristol, Cardiff, Dublin, Glasgow, Leeds, Liverpool, Middlesbrough, Manchester, Newcastle, Swansea, Sheffield.



Form C2



Form C3



Form D

Hull Programme.

6KH 335 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30. } Programme S.B. from London.
8.30-9.0. }
9.0-10.45.—B.N.O.C. Concert. S.B. from Liverpool.

MONDAY, February 16th, and WEDNESDAY, February 18th.

3.0-3.30. } Music relayed from the Majestic
4.0-4.30. } Picture House.
3.30-4.0.—WOMEN'S HALF-HOUR.
5.15-6.15.—CHILDREN'S CORNER.
6.40-6.55.—Boy Scouts' Talk (Wednesday).
7.0-10.30.—Programme S.B. from London.

TUESDAY, February 17th, and THURSDAY, February 19th.

3.0-3.30. } Gramophone Records.
4.0-4.30. }
3.30-4.0.—WOMEN'S HALF-HOUR.
5.15-6.15.—CHILDREN'S CORNER.
7.0-11.0.—Programme S.B. from London.

FRIDAY, February 20th.

3.0-3.30. } Music relayed from the Majestic
4.0-4.30. } Picture House.
3.30-4.0.—WOMEN'S HALF-HOUR.
5.15-6.15.—CHILDREN'S CORNER.
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
PERCY SCHOLES. S.B. from London.
Local News.

Opera-Ballet.

REBA COHEN (Soprano).
JOSEPH GREEN (Tenor).

THE STATION ORCHESTRA :

Under the direction of EDWARD STUBBS.

7.30. Orchestra.
Suite, "Ballet Egyptien" *Luigini*
7.45. Joseph Green.
"Oh, Vision Entrancing" ... *Goring Thomas*
"When a Charmer" ("Rigoletto") *Verdi*
7.55. Orchestra.
Ballet Suite, "Mimes et Ballerines"
Razigade
8.5. Reba Cohen.
"Mimi's Song" ("La Bohème")... *Puccini*
Recit., "Ah, Was It Me?"
Aria, "Let Me Ever Wander" ("La Traviata") *Verdi*
8.15. Joseph Green.
"Flower Song" ("Carmen") *Bizet*
"There is a Flower that Bloometh"
("Maritana") *Wallace*
"Yes! Let Me Like a Soldier Fall"
("Maritana") *Wallace*
8.25-9.15 (approx.).—Speeches relayed from the CIVIL SERVICE DINNER. S.B. from London.
Orchestra.
Excerpts from Ballets *Delibes*
"Pizzicato" ("Sylvia"); "Valse Lento"
("Naïla"); "Circassian Dance" ("La Source").
9.30-10.0.—Programme S.B. from London.
Reba Cohen.
"Scenes That Are Brightest" ("Maritana") *Wallace*
"The Jewel Song" ("Faust") ... *Gounod*
Joseph Green.
"The Sun Returns" ("Eugen Onégin")
Tchaikovsky
"Your Tiny Hand is Frozen" ("La Bohème") *Puccini*
Orchestra.
Ballet Suite, "Coppélia" *Delibes*
10.30.—Close down.

SATURDAY, February 21st.

3.0-3.30. } Gramophone Records.
4.0-4.30. }
3.30-4.0.—WOMEN'S HALF-HOUR.
5.15-6.15.—CHILDREN'S CORNER.
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
The Rev. J. C. G. CUMMING, M.A., "Bees in Town" (1).
Local News.
7.30-12.0.—Programme S.B. from London.



Sunny Days!

TO the simple pleasure of childhood—competing with dolls and engines—must now be added the joys of Broadcasting.

How the kiddies love it! See their impatience when the magic Children's Hour draws near, and their disappointment if Daddy's Set has "gone wrong," or if there are not enough 'phones to go round.

Why not let every member of the family own a pair of **Brown** Featherweights? Such comfort, light weight, economy and sensitiveness has never before been combined in a Headphone.

No vice-like grip, but a gentle embrace that can barely be sensed—no ugly points to catch in the hair—a generous length of cord which permits unhindered movement—these are some of the reasons that account for the wonderful popularity accorded the **Brown** F-type Headphone weighing but six ounces.

F-type Headphones:
4,000 ohms 25/-
120 ohms 22/6

S. G. BROWN, Ltd.,
Victoria Rd., N. Acton, W.3.

Showrooms:
19, Mortimer Street, W.1.
15, Moorfields, Liverpool.
67, High Street, Southampton.

Brown

HEADPHONES AND LOUD SPEAKERS.

Edison Bell Radio

DISTINCT AND DIFFERENT

Just what wireless Ought to be!

Ask your Dealer for demonstration of any EDISON BELL RADIO SET.
You will be delighted with the wonderfully natural-tone which is reproduced therefrom.

— SOLD BY THE LEADING DEALERS —

Model B
Crystal
Set

Retail
49/-



Cat. No. 135.

BRITAIN'S BEST CRYSTAL SET IS THE EDISON BELL MODEL B

The result of exhaustive experiment and research, combining the qualities of efficiency and simplicity. Tuning is effected by the Edison Bell Variometer; the Twin Crystal Detector is lighted up by an electric bulb fitted under the opal glass tubes, facilitating the setting of the crystals and rendering possible the most delicate contact. The lamp is worked from a dry battery contained inside the cabinet, but controlled by a switch on the top of the panel. The "B" Set is also provided with sockets for the addition of loading coils should greater wave-lengths be required. Terminals are fitted to enable the set to be linked with the Edison Bell Note Magnifier, which can be added at pleasure.

The model illustrated below is a combination of the now famous Double Purpose Unit and the Model "C" Crystal Set.

Cat. No. R/185. Retail £9 17s. 6d.
(Plus 12% Marconi Licence.)

Other Edison Bell combinations are:
The Crystal 2-Valve Set, embodying in an oak cabinet the Model "C" Crystal Set, the Double Purpose Unit and 1 Note Magnifier.

Cat. No. R/305. Retail £12 12s. 0d.
(Plus 25% Marconi Licence.)

The Crystal 3-Valve Set is the same as the above model but with 2 Note Magnifiers instead of one.

Cat. No. R/309. Retail £15 0s. 0d.
(Plus 37% Marconi Licence.)

These Prices do not include Valves or Batteries.



Note Magnifier

Cat. No. R/162



Retail
50/-

(Plus Marconi Licence 12%.)

Weight 4½ lbs., Size 8½ x 6 x 5-deep, with Ebonium panel fitted into a polished cabinet with nickel-plated fittings throughout.

This Note Magnifier is designed to amplify the received telephony to the maximum amount without distortion.

A small fuse is fitted to avoid the danger of destroying the valve through accidental short circuit. Special terminals are fitted for grid bias batteries so that higher plate voltages may be used and louder signals amplified without the distortion associated with many Note Magnifiers on the market.

Each Edison Bell Note Magnifier amplifies the signals from 10 to 20 times, and a second or even a third magnifier can be added according to requirements.

By using high plate grid and filament voltages with power valves the Edison Bell Note Magnifier can be used in place of power amplifiers.

There is over 30 Years' Reputation
behind the Name

Edison Bell

West End Depot:
EDISON BELL,
43, Cranbourn Street, W.C.2.
(Opposite London Hippodrome.)

MANUFACTURERS
AND PATENTEES:
(WHOLESALE &
EXPORT ONLY.)

J. E. HOUGH, Ltd., EDISON BELL WORKS, LONDON, S.E.15.

And at HUNTINGDON.

Leeds—Bradford Programme.

2LS 346 M. 310 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30.—*Programme S.B. from London.*
 8.15-9.0.—Service relayed from Horton Lane Congregational Church, Bradford. Address by the Rev. W. PAXTON.
 9.0-10.45.—B.N.O.C. Concert. *S.B. from Liverpool.*

MONDAY, February 16th, and SATURDAY, February 21st.

11.30-12.30.—Gramophone Records.
 2.45-3.45.—The Station Trio.
 5.15-6.15.—CHILDREN'S CORNER.
 6.15-6.30.—Morse Practice by L. Harvey, Engineer-in-Charge (Monday).
 6.40-6.55.—Scouts' Corner (Monday).
 7.0 onwards.—*Programme S.B. from London.*

TUESDAY, February 17th, and THURSDAY, February 19th.

11.30-12.30.—Gramophone Records.
 2.30-4.0.—Isaac Freedman and his Orchestra, relayed from the Theatre Royal Cinema, Bradford.
 4.45-5.15.—WOMEN'S HALF-HOUR.
 5.15-6.15.—CHILDREN'S CORNER.
 6.40-6.55.—*"A Chat to Motorists,"* by Major A. E. Beattie, M.L.A.E., M.Inst.T. (Tuesday).
 Talk: *"Horticultural Hints"* (Thursday).
 7.0-11.0.—*Programme S.B. from London.*

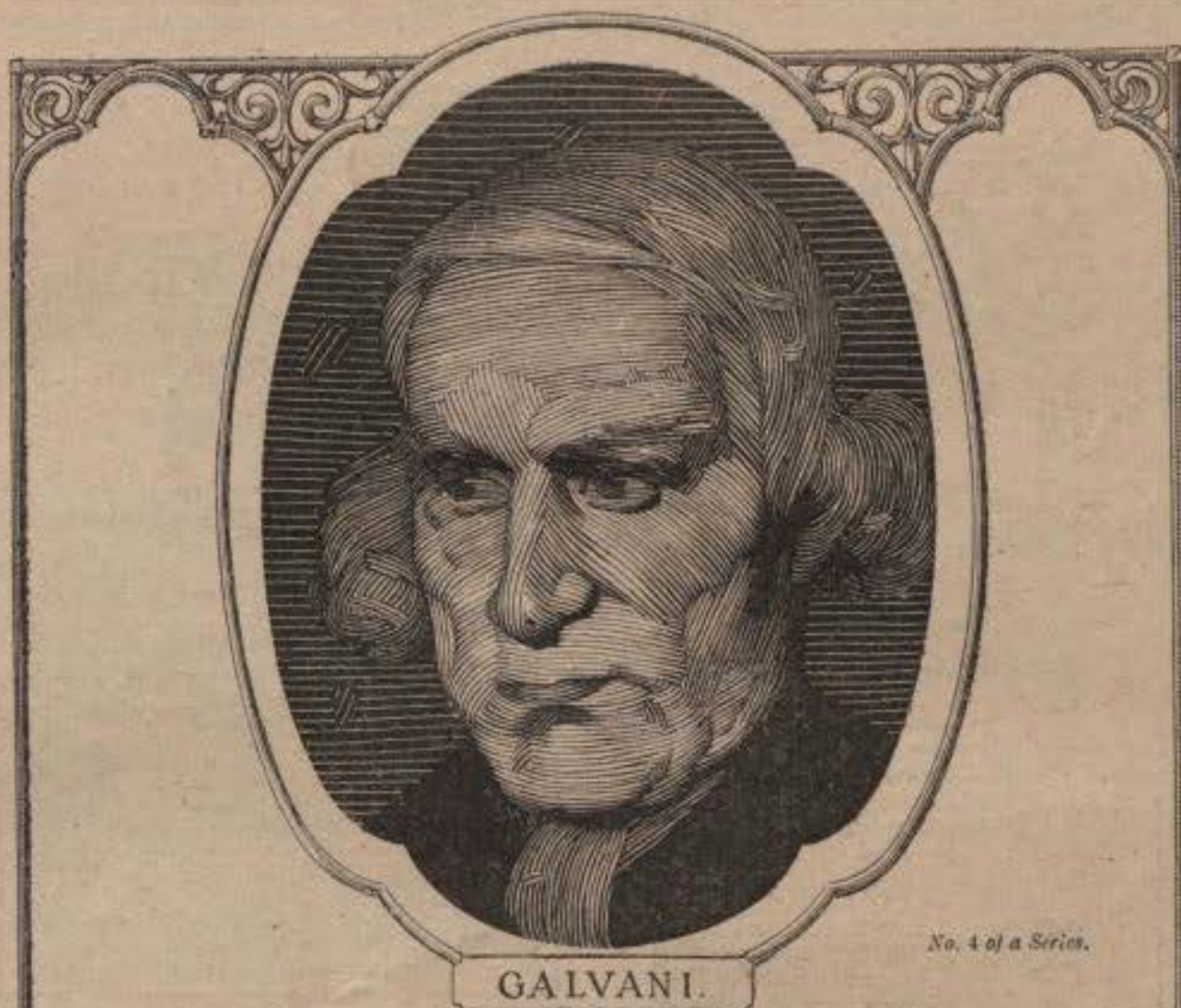
WEDNESDAY, February 18th.

11.30-12.30.—Gramophone Records.
 3.30-4.30.—Signor Calimani and his Orchestra, relayed from the Scala Theatre, Leeds.
 5.15-6.15.—CHILDREN'S CORNER.
 6.15-6.30.—Morse Practice by L. Harvey, Engineer-in-Charge.
 6.40-6.55.—*"On My Anvil,"* by the Smilesmith.
 7.0-10.30.—*Programme S.B. from London.*

FRIDAY, February 20th.

11.30-12.30.—Gramophone Records.
 3.30-4.0.—A Talk to Local Schools.
 4.0-5.0.—Signor Calimani and his Orchestra.
 5.15-6.15.—CHILDREN'S CORNER.
 6.15-6.30.—Morse Practice by L. Harvey, Engineer-in-Charge.
 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 PERCY SCHOLES. *S.B. from London.*
 Local News.
 ANNIE COCKCROFT (Soprano).
 WILFRID HUDSON (Tenor).
 HERBERT BUTTERWORTH (Bass).
 JACK ALLERTON (Entertainer).
 THE HARROGATE ROYAL BATHS QUARTET.
 REGINALD WHITEHOUSE (Violin).
 CECIL JARVIS (Cello);
 CHARLES MANN (Viola);
 CECIL MOON (Pianist and Director).
 7.30. The Quartet.
 Selection, *"Tannhäuser"* Wagner
 Herbert Butterworth.
"The Watchman" Squire (1)
 Jack Allerton.
"Filibuster Brown" (Havana) Stuart
 Annie Cockcroft.
"Nymphs and Fauns" Bemberg
"The Woeing of the Rose" Cesar Franck
"Mary of Allendale" Hook (1)
 Reginald Whitehouse (Solo Violin).
"Introduction et Rondo Capriccioso"
 Saint-Saens
 Annie Cockcroft, Wilfrid Hudson, and
 Herbert Butterworth.
 Vocal Trio, *"I Naviganti"* ("The Sailor")
 Randegger
 8.25.—Speeches relayed from the CIVIL SERVICE DINNER. *S.B. from London.*
 9.15. Jack Allerton.
 Humorous Interlude, *"The Troubadour"*
 Allerton
 Quartet.
 Selected.

(Continued on page 379.)



No. 4 of a Series.

The twitchings of a frog's legs!

UNIMPORTANT and trivial details have often led to epoch-making discoveries. Just as we are told that the evolution of the first steam engine came from James Watt and the kettle boiling on the hearth, so the twitching of a frog's legs played no small part in the discovery of the first electric battery.

Professor Galvani—a noted Italian Scientist and Anatomist—it is said, had passed a copper skewer through the limbs of a dead frog, and was about to hang them up on an iron nail in his laboratory. As soon as the copper touched the iron he noticed a convulsive twitching of the legs. That this was due to some electrical influence he proved by touching a nerve in the frog's limb with a piece of zinc and a muscle with a piece of copper. As

soon as these two metals were connected together a convulsive kick took place. And so came into being the first recorded instance of the electric battery.

From the crude cell filled with acidulated water of 150 years ago, we come to the modern dry battery and the accumulator—truly a great stride forward.

And in the design of Wireless Valves an evolution no less remarkable has taken place during the past two or three years.

Instead of Valves with a big current consumption glowing at a temperature of upwards of 2,000 degrees, there is now available the wonderful Wuncell Valve that operates with a glow that is well-nigh invisible. This long-life Valve is fully described in a Folder obtainable from any Dealer free of charge, or direct from us.

All Cossor Valves are now reduced in price.

Cossor Valves

An Announcement that will interest YOU

Now
Greatly Enlarged
and Improved

Under entirely
New Control

Whether you are a beginner with a simple crystal set, a constructor who delights to try new circuits, or an experimenter in the more advanced stage, you will like "The Wireless World" as it now appears.

It will give the earliest news of all wireless happenings. New apparatus will be described by practical writers. Technical matters will be authoritatively treated in language that any intelligent reader can understand. There will be sections for readers at every degree of wireless progress.

An experienced staff will be always ready to help you in your difficulties.

The object is to make it a journal that you can turn to with confidence, and read with pleasure and profit.

This Week's Number,

in addition to many new and popular features, which will appear regularly in future, also contains special articles by leading authorities, including Dr. J. A. Fleming, F.R.S., Capt. H. J. Round, M.I.E.E., and Mr. R. D. Bangay. There is also a detailed description showing how to build a Two-Range Crystal Set and Valve Amplifier, together with

A Presentation
WIRING DIAGRAM
in Colours

The
Wireless
AND
RADIO REVIEW
World

Every Wednesday

4^D



This week, "THE WIRELESS WORLD" makes its first appearance in a new, enlarged and improved form.

This old-established wireless journal has been taken over by Messrs. Iliffe & Sons Ltd., the proprietors and publishers of a number of highly successful specialised journals, including "The Autocar," "The Motor Cycle," and "The Amateur Photographer."

Everyone who knows these papers will appreciate the meaning of the change in connection with "The Wireless World." From now onwards readers will have the advantage of the long experience of the new Proprietors in conducting publications of a similar character.

While retaining the features that have made "The Wireless World" the recognised authority on wireless matters, many new ones of a more popular character are now included. Great improvement has been made both in the appearance and contents of the paper. The size has been increased, and a new cover introduced.

In its new and enlarged form, "The Wireless World" embraces ALL wireless matters and appeals to every grade of wireless enthusiast.

A Dependable Wireless Newspaper
for Everyone Interested in Wireless

ORDER YOUR COPY TO-DAY—and judge its qualities for yourself

ILIFFE & SONS LTD., Dorset House, Tudor Street, London, E.C.4

Liverpool Programme.

6LV 315 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30.—*Programme S.B. from London.*
 8.15-9.0.—Religious Service from Studio.
 Hymn, "Praise to the Holiest" (A. and M., No. 172).
 Anthem, "Bow Thine Ear" Byrd
 Address by the Rev. J. H. JORDAN.
 Hymn, "The Day Thou Gavest" (A. and M., No. 477).

Operatic Evening.

S.B. to all Relay Stations.
 ACTS I, II, and III.
 "LA BOHEME."
 (Puccini.)

By the
BRITISH NATIONAL OPERA COMPANY
 and the
B.N.O.C. ORCHESTRA
 Conducted by
PERCY PITT.

MimiMAY BLYTH
 Musetta..... MARTINE DUPARC
 Rudolph BROWNING MUMMERY
 Marcel DENNIS NOBLE
 Schaunard FREDERIC COLLIER
 Colline WILLIAM ANDERSON

Time—About 1830 in Paris.

9.0.

Act I.—In the Attic.

Act II.—In the Latin Quarter.

10.0.—WEATHER FORECAST and NEWS.
S.B. from London.

10.15.

Act III.—The Barrière d'Enfer.

10.45.—Close down.

MONDAY, February 16th, and WEDNESDAY, February 18th.

11.0-12.0.—Mid-day Concert.
 3.30-4.30.—Gaillard and his Orchestra, relayed from the Scala Super Cinema.
 5.30-6.30.—CHILDREN'S CORNER.
 7.0-10.30.—*Programme S.B. from London.*

TUESDAY, February 17th.

4.0-5.0.—The "State Brighter Liverpool Dance Band," relayed from the State Café.
 5.30-6.30.—CHILDREN'S CORNER.
 7.0-11.0.—*Programme S.B. from London.*

THURSDAY, February 19th.

3.30-4.30.—Gaillard and his Orchestra.
 5.30-6.30.—CHILDREN'S CORNER.
 7.0-11.0.—*Programme S.B. from London.*

FRIDAY, February 20th.

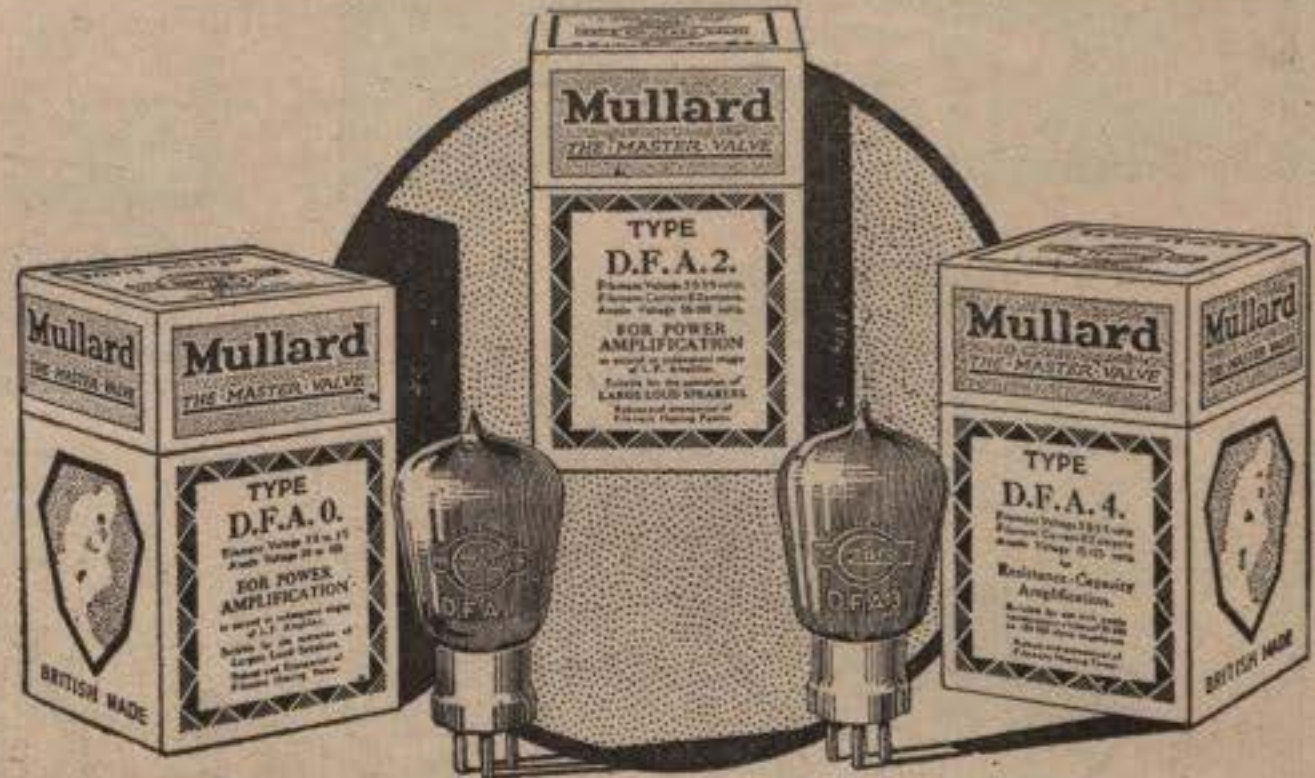
3.15-3.45.—Transmission to Schools.
 4.0-5.0.—The "State Brighter Liverpool Dance Band."
 5.30-6.30.—CHILDREN'S CORNER.
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 PERCY SCHOLES. *S.B. from London.*
 Local News.

Popular Classics.

GERTRUDE EDGARD (Mezzo-Soprano).
 GEORGE HILL (Baritone).
 THE STATION SYMPHONY ORCHESTRA.

Under the Direction of
 FREDERICK BROWN.
 Notes by Moses Baritz.

7.30. Orchestra.
 Overture, "Tannhäuser" Wagner
 7.40. Gertrude Edgard.
 "Ave Maria" Gounod
 (Violin Obligato, FREDERICK BROWN.)
 "To the Children" Elgar (4)
 "In a Strange Land" Taubert
 7.50. Orchestra.
 "Wand of Youth," Suite No. 2 Elgar (11)
 George Hill.
 "For a Carousel" ("Don Giovanni")
 Mozart
 "Sach's Cobbling Song" ("The Master-singers") Wagner
 "Song of the Flea" Moussorgsky
 (Continued on page 379.)



REAL POWER VALVES

When you want power valves for highly efficient power amplification, it will pay you to emphasise

MULLARD D.F.A. MASTER VALVES.

These valves have been specially designed for maximum power work with a low temperature long life filament for minimum current consumption.

THEY'RE MULLARD, SO THEY'RE GOOD.
NOTE THE DISTINCTIVE TYPES FOR SPECIAL OPERATION.

For Large Loudspeakers giving increased volume and clarity.

- D.F.A.0. and D.F.A.2 (for 4 volt batteries) - 26/- each
- D.F.A.1 (for 6 volt batteries) - 30/- each
- D.F.A.3 (for 6 volt batteries) - 32/- each

For Resistance Capacity Amplifiers.

- D.F.A.4 (for 6 volt batteries) - 30/- each
- Leaflet V.A.4. gives full technical information*

WHEN YOU BUY, EMPHASISE

Mullard
THE MASTER VALVE

Obtainable from all Electricians, Wireless Dealers, Ironmongers, etc., etc.

*Advertisement—The Mullard Radio Valve Co., Ltd. (R.T.),
 Nightingale Works, Nightingale Lane, Balham, S.W.12.*

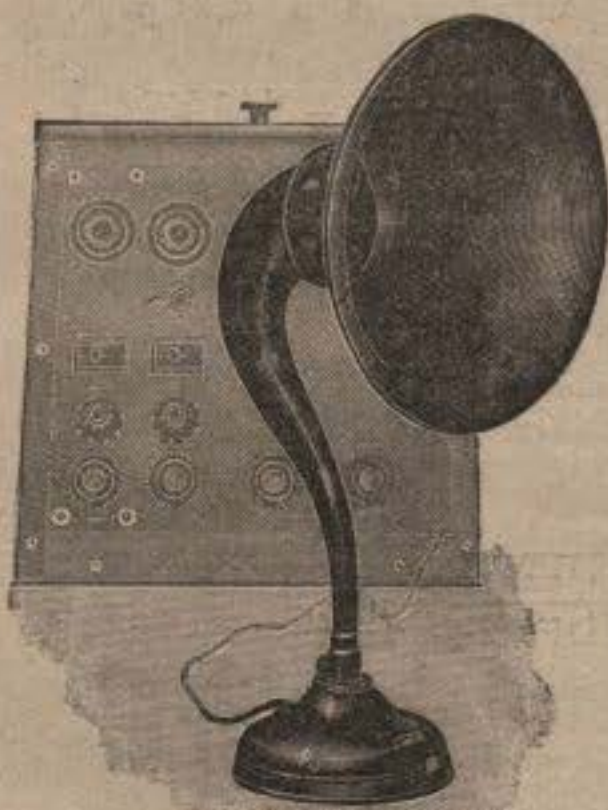
LOUD SPEAKERS **SIEMENS** **HEAD TELEPHONES**



Headphones in presentation box.

Specially suitable for tuning-in distant stations, for crystal sets and in all cases where **extreme sensitiveness** is essential.

PRICES: 120 ohms, 22/6. 2,000 ohms, 24/-. 4,000 ohms, 25/-.



Handsome in appearance, unrivalled for clarity and tonal qualities.

By concentrating on a single model we are able to produce a loud speaker of the highest grade, large enough to give ample volume, and yet at a price only a little more than that of miniature instruments.

NEW REDUCED PRICES.

120 ohms, 42/6. 2,000 ohms, 44/-. 4,000 ohms, 45/-.

Obtainable from all leading dealers.

SIEMENS BROTHERS & CO LTD,
WOOLWICH, LONDON, S.E.18.

and at
 BELFAST, BIRMINGHAM, BRISTOL, CARDIFF, DUBLIN,
 GLASGOW, LEEDS, LIVERPOOL, MANCHESTER, NEWCASTLE,
 SHEFFIELD, SOUTHAMPTON.

CALENDAR 1925

**Guaranteed for
 Twelve Months!**



21/-
 per pair

WHEN you buy a pair of **REVO Lightweight Phones** you buy perfection in volume, tone and clarity, plus a *twelve months' guarantee* of 100 per cent. efficiency. Comfortable (no hair-catching "gadgets") five-foot cord and permanent magnets, 4,000 ohms resistance.

Write for full particulars of crystal and valve sets, amplifiers, telescopic masts, etc. If you cannot obtain **REVO** goods locally write direct:

THE CABLE ACCESSORIES CO., LTD.,
 TIVITDALE, TIPTON, STAFFS.

Revo

Headphones

"The name for Perfect Radio"

Nottingham Programme.

5NG 322 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30. } Programmes S.B. from London.
8.30-9.0. }
9.0-10.45.—Programme S.B. from Liverpool

MONDAY, February 16th.

11.30-12.30.—Pianola Recital.
3.30-4.30.—The Scala Picture Theatre Orchestra: Musical Director, Andrew James.
4.30-5.0.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
6.0-6.15.—Teens' Corner.
6.20-6.30.—Station Topics.
6.35-6.55.—Mr. A. Radford, B.Sc. (Econ.), on "Prices and the Cost of Living" (2).
7.0-10.30.—Programme S.B. from London.

TUESDAY, February 17th.

3.30-4.30.—Lyons' Café Orchestra: Conductor, Brassey Eyton.
4.30-5.0.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
6.0-6.15.—Boys' Brigade Corner.
6.20-6.35.—Teens' Corner.
6.35-6.55.—Mr. V. De Sola Pinto, M.A., on "Falstaff."
7.0-11.0.—Programme S.B. from London.

WEDNESDAY, February 18th.

11.30-12.30.—Gramophone Records of the week.
3.30-4.30.—Lyons' Café Orchestra.
4.30-5.0.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
6.0-6.55.—Prof. R. Peers, M.C., M.A., Talk and Telephone-Wireless Discussion with Listeners, "Economics and Welfare."
7.0-7.30.—Programme S.B. from London.
7.30-9.0. THE NOTTINGHAM CITY ORCHESTRA:
Conductor: FREDERICK MOUNTNEY.
Relayed from
The Albert Hall, Nottingham.
9.0-10.30.—Programme S.B. from London.

THURSDAY, February 19th.

3.25-3.45.—Transmission to Schools: Dr. H. S. HOLDEN, D.Sc., F.L.S., "The Life History of the Common Housefly."
3.45-4.45.—Scala Picture Theatre Orchestra.
5.15-6.0.—CHILDREN'S CORNER.
6.20-6.35.—Teens' Corner.
6.35-6.55.—Mr. J. M. Dickson, B.Sc., "The Imperial Aspect of Our Power Resources."
7.0-11.0.—Programme S.B. from London

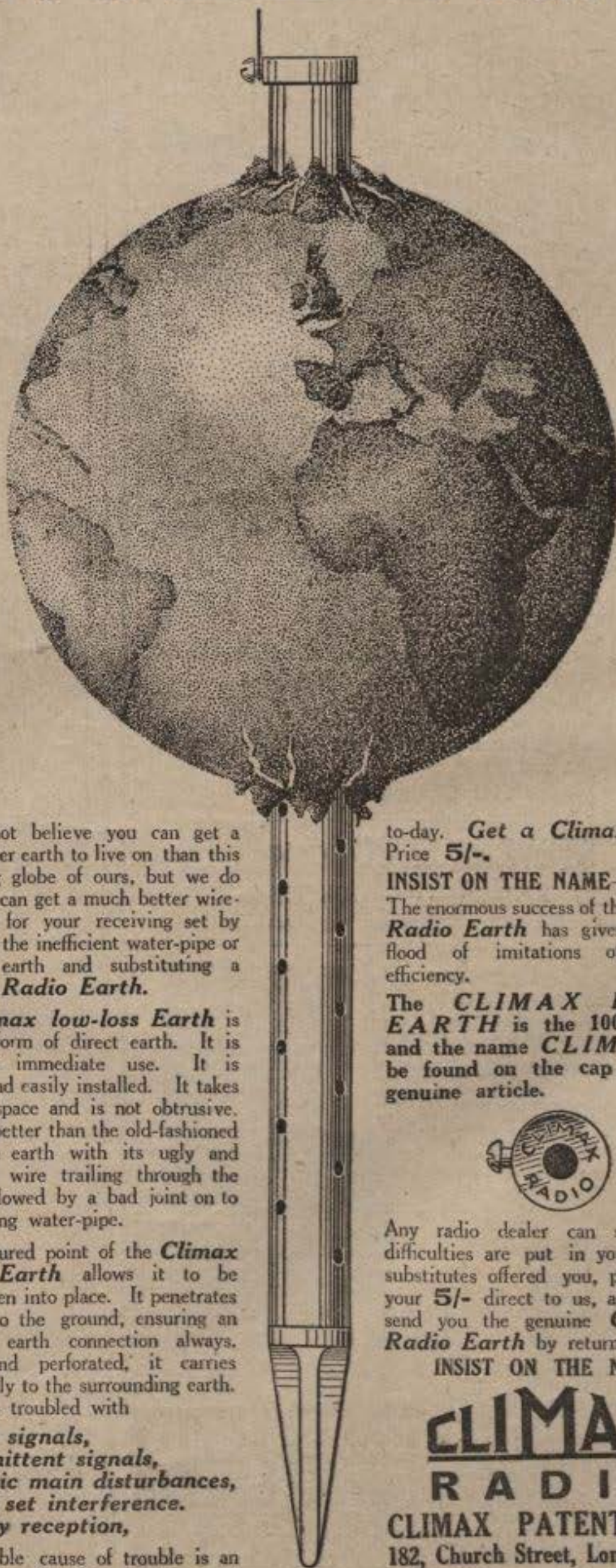
FRIDAY, February 20th.

11.30-12.30.—Pianola Recital.
3.30-4.30.—Lyons' Café Orchestra.
4.30-5.0.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
6.0-6.15.—Sir FRANCIS YOUNGHUSBAND, K.C.S.I., K.C.I.E., C.I.E., LL.D., D.Sc., "England's Task in India."
6.20-6.35.—Teens' Corner.
6.40-7.30.—Programme S.B. from London.
An Evening of Variety.
7.30. THE FLINT FAMILY
Will Entertain.
7.50. RUBY BARLOW AND EDWARD MURRAY.
"TWO ON A BUS."
A Farical Duologue by Herbert Swears.
8.10. The Flint Family Again.
8.25-9.15.—Speeches relayed from the Civil Service Dinner. S.B. from London.
RUBY BARLOW and EDWARD BONFIELD
in a Scene from
"THE SCHOOL FOR SCANDAL"
(Richard Brinsley Sheridan).
9.30-10.0.—Programme S.B. from London.
10.0. The Flint Family.
10.15. THE MONOCLES CONCERT PARTY
In a Varied Repertoire.
11.15.—Close down.

SATURDAY, February 21st.

3.15-4.15.—The Scala Picture Theatre Orchestra.
5.0-6.0.—CHILDREN'S CORNER.
7.0-12.0.—Programme S.B. from London.

Get a CLIMAX Earth



We do not believe you can get a much better earth to live on than this old rolling globe of ours, but we do know you can get a much better wireless earth for your receiving set by abolishing the inefficient water-pipe or gas-pipe earth and substituting a **Climax Radio Earth**.

The **Climax low-loss Earth** is the best form of direct earth. It is ready for immediate use. It is quickly and easily installed. It takes up little space and is not obtrusive. It is far better than the old-fashioned water-pipe earth with its ugly and inefficient wire trailing through the house, followed by a bad joint on to a wandering water-pipe.

The armoured point of the **Climax Radio Earth** allows it to be easily driven into place. It penetrates deeply into the ground, ensuring an excellent earth connection always. Drilled and perforated, it carries water easily to the surrounding earth. If you are troubled with

**Weak signals,
Intermittent signals,
Electric main disturbances,
Local set interference,
Muddy reception,**

the probable cause of trouble is an inefficient earth. Get a better earth

to-day. Get a Climax Earth. Price 5/-.

INSIST ON THE NAME—CLIMAX
The enormous success of the **Climax Radio Earth** has given rise to a flood of imitations of doubtful efficiency.

The **CLIMAX RADIO EARTH** is the 100% earth, and the name **CLIMAX** will be found on the cap of every genuine article.



Any radio dealer can supply. If difficulties are put in your way, or substitutes offered you, please send your 5/- direct to us, and we will send you the genuine **CLIMAX Radio Earth** by return post free.

INSIST ON THE NAME

**CLIMAX
RADIO**

CLIMAX PATENTS, Ltd.
182, Church Street, London, W. 8.
Telephone: Park 2023.

"On testing the 4-valve A.J.S. Set we got three American Stations using two valves only. On three valves the Westinghouse Station could be heard with the phones on the table."
—Lancashire User's Letter.

A.J.S.

"THE HALL MARK OF RADIO PERFECTION."

The most inexperienced user cannot fail to get the best possible results with an A.J.S. Receiver—perfect reception becomes a matter of certainty. Write for free illustrated list, or call on the nearest A.J.S. Dealer and examine the models illustrated, as well as the "Desk Type" Receivers, the "Unit System" 4-Valve Cabinet Receiver, and the A.J.S. Loud Speakers.

The A.J.S. PEDESTAL CABINET RECEIVER

Designed and constructed by experienced Cabinet-makers to contain the A.J.S. 4-Valve Receiver. Represents the highest standard yet achieved in the design of Wireless Receiving Sets. Each cabinet is a complete unit containing 4-Valve Receiver, H.T. and L.T. Batteries, special A.J.S. Loud Speaker to match cabinet, and all accessories. In Mahogany or Oak,
50 Guineas.

A. J. STEVENS & CO. (1914), LTD., WIRELESS BRANCH—WOLVERHAMPTON.

Phone: 1550; Wireless Call Sign: 5RI; 'Grams: "Reception, Wolverhampton."

THE A.J.S. "UNITOP" CABINET RECEIVER

forms top section of "Unit System" Cabinet and contains A.J.S. 4-Valve Receiver. Complete in itself, it may be converted into a beautiful pedestal cabinet by subsequent purchase of first a centre section to contain both batteries and then base section containing special A.J.S. Loud Speaker. Used alone, the "Unitop" is a compact and attractive piece of furniture and a highly efficient Receiver, easily portable for outdoor functions. In Mahogany, or Light, Dark, or Wax-polished Oak. Complete with all accessories, ready for use, **30 Guineas.**
(Without accessories, £24 10s.)



A BOOK for every Wireless Enthusiast

A few selected titles from the list of handbooks published by "The Wireless World."

"The Ezi-Wiring Series"

- No. 1. "A Three-Valve Portable Receiver."
By Hugh S. Pocock.
Price 2/- net. By post, 2/2.
- No. 2. "A Three-Valve Receiver."
By F. H. Haynes.
Price 2/- net. By post, 2/2.
- No. 3. "A Two-Valve and Crystal Reflex Receiver."
By W. James.
Price 2/- net. By post, 2/2.
- No. 4. "A Four-Valve Combination Receiver."
By W. James.
Price 2/- net. By post, 2/2.

The "Ezi-Wiring" series represents a definite and welcome innovation for the constructor possessing little or no technical knowledge and who wishes to build instruments of high efficiency with minimum trouble and expense. The wiring diagrams are shown in four colours—a unique feature which reduces the possibility of incorrect wiring. In addition advice regarding the choice of components and building and operating instructions are given. Each book contains four plates.

- "The Amateur's Book of Wireless Circuits."
By F. H. Haynes. Price 3/6 net. By post, 4/-.
- "The Home Constructor's Wireless Guide."
By W. James. Price 3/6 net. By post, 3/9.
- "Crystal Receivers for Broadcast Reception."
By P. W. Harris. Price 1/6 net. By post, 1/8.
- "Practical Wireless Sets for All—Home Construction Made Easy."
By P. W. Harris. Price 1/6 net. By post, 1/8.
- "Mast and Aerial Construction for Amateurs."
By F. J. Ainsley. Price 1/6 net. By post, 1/8.

New Books—Ready Shortly:

- "Tuning Coils and Methods of Tuning."
By W. James. Price 2/6 net. By post, 2/10.
- "The Home Constructor's Easy-to-Build Wireless Sets."
By F. H. Haynes.
Price 1/6 net. By post, 1/9.
- "Practical Wireless Receivers and Circuits in Principle and Practice."
By R. D. Bangay and N. Ashbridge.
Price 2/6 net. By post 2/10.

Obtainable from Booksellers and Wireless Stores; or direct from the Publishers of "The Wireless World."

ILIFFE & SONS LTD.,
Dorset House, Tudor Street, London, E.C.4.

Send postcard for complete list of
"The Wireless World" Handbooks.

Plymouth Programme.

5PY 338 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30. } Programme S.B. from London.
8.30-9.0. }
9.0-10.45.—B.N.O.C. Concert. S.B. from Liverpool.

MONDAY, February 16th, and WEDNESDAY, February 18th.

3.30-4.30.—Ernest Manning and his Orchestra, relayed from the New Palladium Cinema. Dorothy Lincoln (Soprano).
5.0-5.30.—WOMEN'S TOPICS.
5.30-6.30.—CHILDREN'S CORNER.
7.0-10.30.—Programme S.B. from London.

TUESDAY, February 17th.

3.30-4.30.—Ernest Manning and his Orchestra.
5.0-5.30.—WOMEN'S TOPICS.
5.30-6.30.—CHILDREN'S CORNER.
6.40.—Eric J. Patterson, M.A. (Cantab), Talk: "Adult Education in the South-West of England" (3).
7.0-11.0.—Programme S.B. from London.

THURSDAY, February 19th, and SATURDAY, February 21st.

4.0-5.0.—Albert Fullbrook and his Trio, relayed from the Royal Hotel.
5.0-5.30.—WOMEN'S TOPICS.
5.30-6.30.—CHILDREN'S CORNER.
7.0 onwards.—Programme S.B. from London.

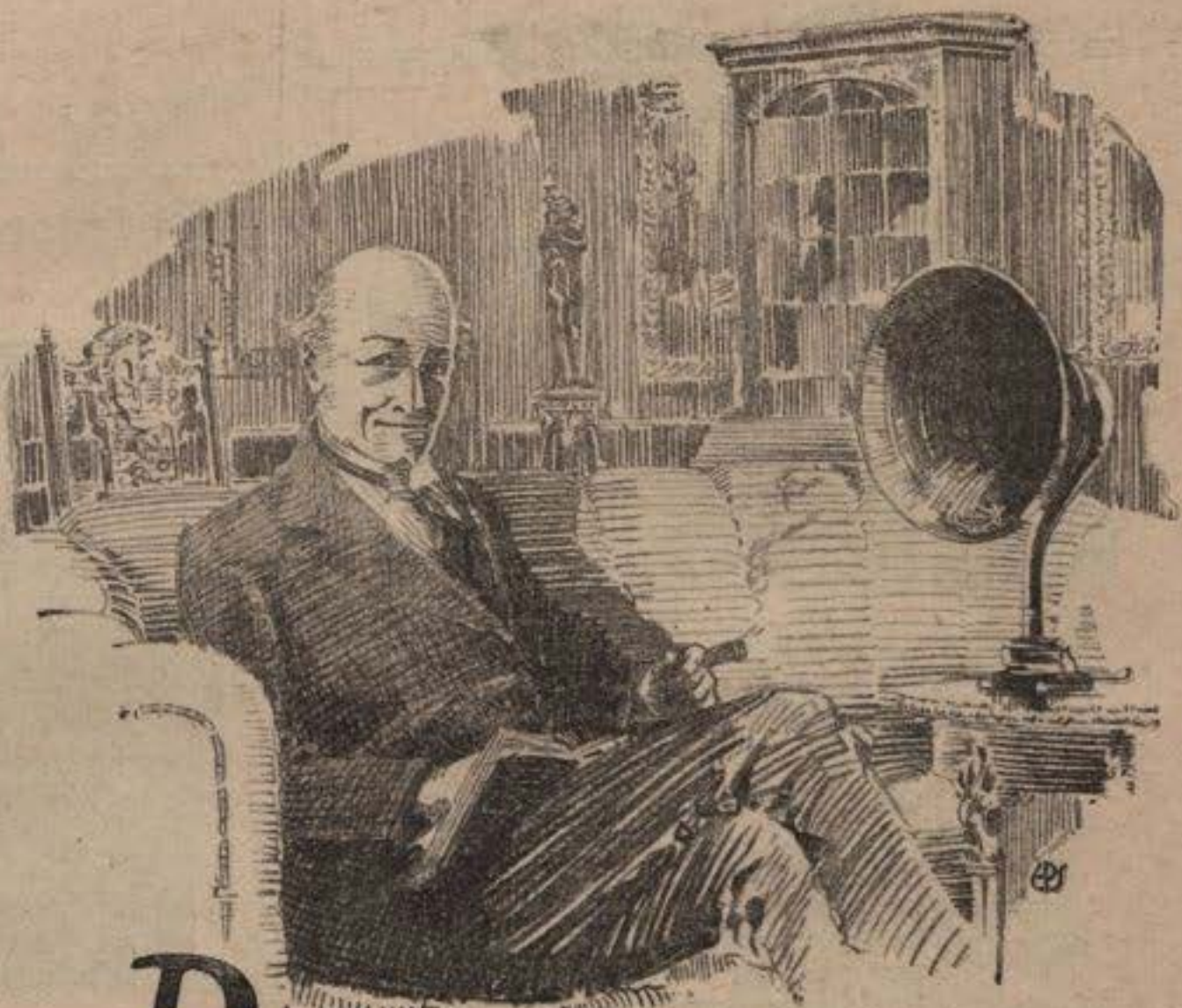
FRIDAY, February 20th.

3.30-4.0.—Talks to Schools: Mr. J. J. Judge, "How Newspapers are Made." Musical Interlude. Col. H. T. Le Mesurier, "The Englishman in India."
4.0-5.0.—Albert Fullbrook and his Trio, relayed from The Royal Hotel.
5.0-5.30.—WOMEN'S TOPICS.
5.30-6.30.—CHILDREN'S CORNER.
6.40-6.55.—Ministry of Agriculture's Fort-nightly Bulletin. S.B. from London.
7.0-7.30.—Programme S.B. from London.

An Evening of Short Plays.

Produced by WILLIAM MACREADY.
Incidental and other Music by THE STATION TRIO.

7.30. Trio.
"Caprice de Rio" Michiels
7.40. "DELICATE GROUND"
(Charles Dance).
A Comedy in One Act.
Pauline Sangfroid
EDNA GODFREY-TURNER
Alphonse de Grandier
CHARLES FREEMAN
Citizen Sangfroid
WILLIAM MACREADY
Scene—A Room in Sangfroid's House, Paris.
8.40. Trio.
"Morning Song to the Betrothed"
Volpatti
"Long du Missouri" Christine
8.50. "A DAUGHTER'S CHOICE"
(Donald Edwards).
A Dramatic Episode in One Act.
Henry Hertz, M.P.
WILLIAM MACREADY
Marianne Hertz (His Wife)
EDNA GODFREY-TURNER
Lilian Hertz (Their Daughter)
LUCY MURRAY
Scene—A Room in Hertz's House.
9.20. Trio.
Selection, "Lucia di Lammermoor"
Donizetti
9.30-10.0.—Programme S.B. from London.
10.0. "THE IRISH DOCTOR"
(J. K. Wood).
A Farce in One Act.
Mrs. Beresford (A Wealthy Widow)
EDNA GODFREY-TURNER
Nellie (Maid to Mrs. Beresford)
LUCY MURRAY
Dr. Michael O'Flannigan
WILLIAM MACREADY
Scene—Mrs. Beresford's House in London.
Trio.
"Danse des Apaches" Offenbach
10.30.—Close down.



Portmanteau Words

I'm afraid I must confess a distinct weakness for Portmanteau Words; chiefly I suppose on account of their descriptive convenience. They always seem to mean exactly what they say; and, except perhaps in a rare case such as that of the immortal "Brugglesmith," their meaning is evident at sight.

Take, for instance, the word Volutone. No doubt can rest in anyone's mind as to what that means.

Volume and Tone—the two essentials of a first-class Loud Speaker. Full Volume and Perfect Tone, a joy to listen to and a treasure to possess.

But even this all-embracing word fails to convey its handsome appearance. The instrument's pleasing lines have a beauty rarely found in something that hitherto has usually been regarded purely as a piece of mechanism.

Go and have a look at a Volutone. Your local retailer is almost certain to have one in stock.

And when you have satisfied yourself as to its appearance make a point of hearing it as well.

I think you'll agree then that I was quite right when I coined that essentially accurate word—VOLUTONE.

Muelo Fellows

YEATES LTD.,

20, Store Street, Tottenham Court Road, London, W.C.1.

Well equipped demonstration and sales offices of Fellows Wireless Products. Wholesale and Retail.



The Volutone Loud Speaker gives really large volume without sacrificing the quality of reproduction. The diaphragm is adjustable.
Price £4 : 10 : 0





Ask John Henry!

OR "BLOSSOM" about it!

"By gosh, tha should see Blossom's smile! She met Mrs. Murgatroyd off to buy another accumulator and more batteries for the wireless set Joe gave her last year for her fifty-third birthday. Said Blossom sweetly: 'It always pays to buy good things in the first place, don't you think, dear? The Wates Accumulator that John Henry gave me has already lasted two years and the Pyramid Batteries eight months—and they are still going strong.' Aye, and it's a fact, too!"

"KINGSWAY" ACCUMULATORS



Plates are the vital point! In this range they are specially stout, ensuring trouble-free and reliable service. Perforated ebonite separators and strong celluloid cases are standard.

Here are some useful sizes:

2 volt	80 amps. (ign.)	...	17/-
4 "	40 "	"	22/6
4 "	60 "	"	27/6
6 "	40 "	"	32/6
6 "	60 "	"	40/6
6 "	80 "	"	49/-

Other ranges are ideal glass Accumulators and H.T.'s. Wates C.A.V. de-luxe Accumulators, etc.

The "PYRAMID" H.T. BATTERY
NOISE FREE. LONG LIFE. CONSTANT VOLTAGE.

These are the distinctive features of the PYRAMID. Extra heavy elements, sealed in with white wax, enables us to thoroughly guarantee every PYRAMID Battery.

15 volt	...	2/9
30 "	...	6/9
60 "	...	11/9
90 "	...	17/9



Send to-day for our revised Catalogue—just published, giving full details of above and many other value for money components. POST FREE on request.

WATES
 BROTHERS, LTD.

12, 13, 14, Gt. Queen St., Kingsway, W.C.2.

Phone: Gerrard 575-576.

Grams: Zywalszeng, Westcent.

Works: London, Birmingham and Westcliff.

**"It's more than a Loud Speaker
 —it's a Reproducer"**



THE more one listens to the average loud speaker (accent on the loud) the more one realises how folk are choked off wireless. They've never really listened in, they've never heard a good rendering of good music through a really class reproducer like the Ericsson Super-Tone Loud Speaker. Gone is the usual distortion, "tin" and blasting, and in their place come through full, mellow notes at practically crystal purity. Many months of weary testing, selection and rejection have ensured this. Thus we have a de luxe loud speaker at a fair price—75/-. In dull finish on a polished wood base and standing 18 in. high. Write to-day (or apply to nearest dealer).



Selling Agents:
 MANCHESTER: Patience Wireless Equipment Co., 5, King St., W. Deansgate.
 NOTTINGHAM: W. J. Pears & Co., Trullo St.
 COLCHESTER: 121, High Street.
 SCOTLAND: Malcolm Reid, 57, Robertson Street, Glasgow.
 BIRMINGHAM: 14-15, Snow Hill.
 N.E. ENGLAND: Milburn Ho., Newcastleton-Tyne.
 LEEDS: North British Engineering Equipment Co., Excelsior Buildings, Lands Lane.
 IRELAND: Stocks carried by A. W. Doyle, Kelly & Co., 174, Pearse St., Dublin.
 BELFAST: J. Robertson, Ltd., 45, May Street.
 WALES: E. Thompson & Son, Western Mail Chambers, Cardiff.

The British L. M. Ericsson Mfg. Co. Ltd.
 67/73, Kingsway, London, W.C.2

Ericsson SUPER-TONE LOUD SPEAKER
 Buy British Goods Only



Sheffield Programme.

6FL 301 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30. } Programme S.B. from London.
8.30-9.0. }
9.0-10.45.—B.N.O.C. Concert. S.B. from Liverpool.

MONDAY, February 16th, to THURSDAY, February 19th.

11.30-12.30.—Gramophone Records.
12.0.—Time Signal, relayed from the Cathedral.
3.30-4.30.—Concert.
5.0-5.20.—WOMEN'S CORNER.
5.30-6.30.—CHILDREN'S CORNER.
Station Director's Talk (Monday).
Mr. Eric N. Simons, "Sir Arthur Conan Doyle" (Tuesday).
6.40-6.55. Mr. Guy A. Brown, "Modern Relics of Barbarism—Laying a Foundation Stone" (Thursday).
7.0 onwards.—Programme S.B. from London.

FRIDAY, February 20th.

11.30-12.30.—Gramophone Records.
12.0.—Time Signal, relayed from the Cathedral.
3.30-4.30.—Programme S.B. from Birmingham.
5.0-5.20.—WOMEN'S CORNER.
5.30-6.30.—CHILDREN'S CORNER.
6.40-6.55.—Mr. W. Percival Westell, "Wonderland Nature Talks—The Return to Nature."
7.0-7.30.—Programme S.B. from London.
THE "6FL" ORCHESTRA:
Under the Direction of COLLIN SMITH.
ENA ROBERTS (Contralto).
"STAINLESS STEPHEN."
7.30. Orchestra.
Andante from Symphony No. 5 Beethoven
"Carissima" Elgar (4)
Adagio and Allegro Vivace from Symphony No. 1 Schubert
7.55. Ena Roberts.
"Hindu Song" Rimsky-Korsakov
"Strida la Vampa" ("Il Trovatore")
Verdi
8.5. Orchestra.
Entr'acte, "Nero" .. Coleridge-Taylor (11)
Intermezzo, "Cupid in Smiles and Tears"
Wellesley
"Liebestraume" (No. 3) List
"Music Box" Frind
"The Musical Snuffbox" Liadov
8.30. Ena Roberts.
"O Mio Fernando" ("La Favorita")
Donizetti
"The Silver Ring" Chaminade (5)
8.40. Orchestra.
2nd Movement from Symphonie Pathétique
Tchaikovsky
Divertimento Tchaikovsky
9.0. "Stainless Stephen."
9.15. Orchestra.
Valse Levitzki
Cantilena Goltermann
Valse Célèbre Moszkowski
9.30-10.0.—Programme S.B. from London.
10.0. Orchestra.
Chant Sans Paroles, "Sweet Lavender"
Litta Lynn
"Meditation" Glazounov
10.10. Ena Roberts.
"The Lost Chord" Sullivan (1)
"Three Fishers" Hullah
10.20. Orchestra.
"Chanson de Pierrot" Drigo
"A Tone Picture" Hass
Valse Triste Sibelius
10.35.—Close down.

SATURDAY, February 21st.

3.30-4.30.—Programme S.B. from Manchester.
5.0-5.20.—WOMEN'S CORNER.
5.30-6.30.—CHILDREN'S CORNER.
7.0-12.0.—Programme S.B. from London.



THIS Loud Speaker has achieved the most outstanding success since the inception of Wireless Broadcasting.

Although a "Baby" in size and appearance, the performance of the Dragonfly—costing only 25/-—is comparable with many large Loud Speakers much higher in price, particularly when it is associated with a receiving set of suitable power and efficiency. This miniature Loud Speaker bears the AMPLION trade mark and embodies the unique constructional details and patented features of the standard AMPLION Dragon models. It emphasises to the full the real meaning of "efficiency for size" and "value for money."

All types of AMPLIONS are obtainable from AMPLION STOCKISTS and Wireless Dealers of Repute—literature free from Patentees and Manufacturers:

West End Showrooms:
25-6, Savile Row,
W.1.

ALFRED GRAHAM & CO.

(E. A. GRAHAM),
St. Andrew's Works, Crofton Park, London, S.E.4

Suburban Showrooms,
82, High Street,
Clapham, S.W.4.

AMPLION

The Aerial You Have Been Looking For!

Whether your receiving set is a valve set or a crystal one, whether your aerial is outside or inside, you can increase its range and greatly improve the strength and clearness of signals by substituting **MAGNIPLEX** for your present aerial wire.



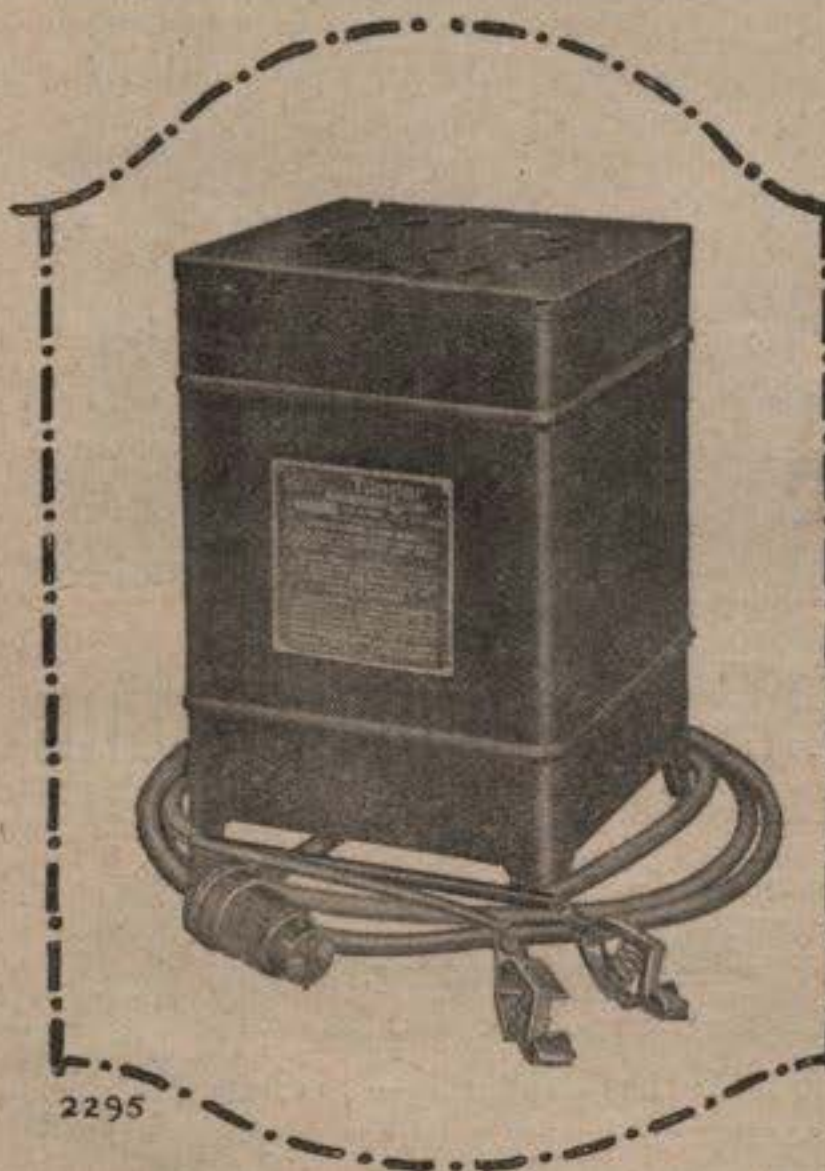
"Strong as Steel"

MAGNIPLEX is made of specially woven Phosphor Bronze Wire Gauze of high tensile strength and conductivity, and can be used in any form of aerial.

Prices:— $\frac{1}{2}$ in. wide 3d. per foot; $\frac{3}{4}$ in. wide 2d. per ft. Supplied in lengths of 50, 75 and 100 feet, including fittings, viz.:—End Terminal for Down Lead and Insulators ready for erecting. For lengths under 50 ft. fittings charged 1s. 3d. extra. Postage and Packing paid.

Our claim is backed by a guarantee that we will refund your cash without question if results are not better than your present aerial and more than justify the extra cost.

HELIXO LTD., HENRY BUILDINGS,
GRESSE STREET,
RATHBONE PLACE, LONDON, W.1.
Phone: Museum 6039.



2295

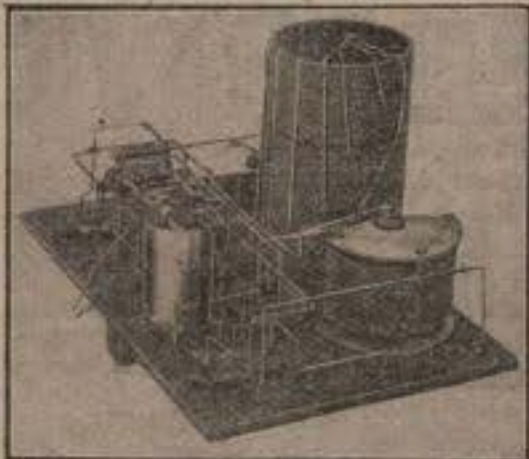
So little to do— Such great results.

THE **TUNGAR** starts charging as soon as it is switched on, requires no attention, and can be left on all night if desired. There are no chemical or mechanical complications and nothing to get out of order.

B.T.H. Tungar
FOR CHARGING BATTERIES ON
ALTERNATING CURRENT SUPPLY

If you have electric light (A.C.) the Tungar will solve your battery charging problems. It will keep your battery fully charged and in perfect condition at negligible cost.

Ask your nearest *Electrical or Radio Dealer* for a demonstration, or write for copy of new folder to The British Thomson-Houston Co., Ltd., Mazda House, Newman St., Oxford St., W.1



One of our instruments about half finished (note special design of coil which gives high efficiency and eliminates interference.)

FOR THOSE WHO WANT THE BEST Here is the new Dunham Receiver BETTER THAN EVER.

Dunham instruments have already established themselves as being by far the most efficient on the market and the new model now ready is as far ahead of the old model, as the old model was ahead of other instruments. **SUPER STRENGTH—SUPER QUALITY and SUPER RANGE** and the same everlasting guarantee. The new unique circuit arrangement makes Dunham instruments by far the most efficient and their beautiful finish gives them pride of place in every home. Ranges of 400 to 500 miles on the loud speaker are quite ordinary achievements, while America even comes through clearly and strongly on telephones on our two valve set. The Spanish station is clearly and wonderfully reproduced on the loud speaker with the new three valve receiver and generally it is a machine that is absolutely unique in its class, equalling if not surpassing a good many four valve receivers.

Receiver only (new model), £10 10s. 6d., plus Marconi royalty fee, 37s. 6d., or absolutely complete installation including all royalties and fees £16 19s. 6d.

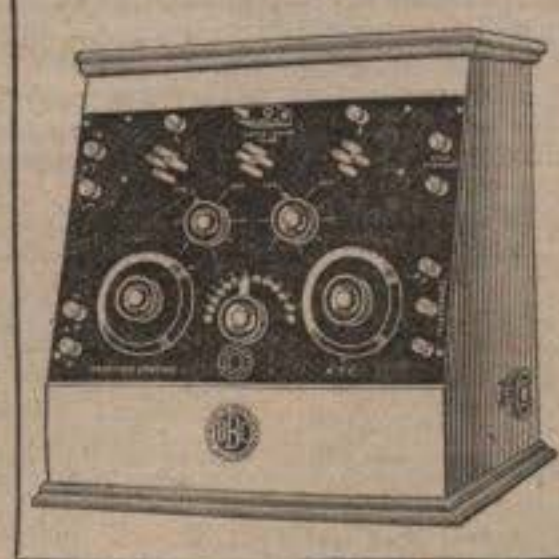
Write for full catalogue and more particulars of the wonderful machines we market and traders for Agency forms and good trade terms.

C. S. DUNHAM (Radio Engineer),

Late of Marconi So. Inst. Co., 234-b, Brixton Hill, S.W.2.

Phone: Brixton 3,325. New and easy deferred payments.

(Purchasers of the old type of three-valve receiver should write for quotation for altering to the new model).



The "DUNHAM" 3-Valve Receiver.

Stoke - on - Trent Programme.

6ST 306 M.

Week Beginning Sunday, February 15th.

SUNDAY, February 15th.

3.0-5.30.—Programme S.B. from London.
8.30.—Religious Service.
Address by The Rev. G. DEKIN, M.C.,
of the Tabernacle, Hanley. Hymns.
9.0-10.45.—B.N.O.C. Concert. S.B. from Liver-
pool.

MONDAY, February 16th, to WEDNESDAY, February 18th, and SATURDAY, February 21st.

12.30-1.30.—Mid-day Concert (17th).
3.30-4.30.—The Majestic Cinema Orchestra:
Musical Director—Thomas Bockett.
5.0-6.0.—CHILDREN'S CORNER.
6.30-8.45.—Instructions in the Morse Code
(Tuesday).
7.0 onwards.—Programme S.B. from London.

THURSDAY, February 19th.

12.30-1.30.—Mid-day Concert.
3.30-4.30.—Gramophone Records of the Week.
5.0-6.0.—CHILDREN'S CORNER.
6.30-8.45.—Instructions in the Morse Code.
7.0-11.0.—Programme S.B. from London.

FRIDAY, February 20th.

3.0-3.30.—Transmission to Schools: Mr. J. R. B.
Masfield, "Birds of Staffordshire."
3.30-4.30.—The Majestic Cinema Orchestra.
5.0-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Ministry of Agriculture's Fortnightly
Bulletin. S.B. from London.
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
PERCY SHOLES. S.B. from London.
Local News.

MOLLIE HACKNEY (Soprano).

ETHEL ASHCROFT (Contralto).

JAMES FROST (Baritone).

HARRY FREEMAN (Solo Violin).

W. T. BONNER (Solo Pianoforte).

7.30. Mollie Hackney and James Frost.

"At Love's Beginning" . . . *Liza Lehmann* (1)

7.35. Harry Freeman.

"Berceuse" *Dancla*

"L'Abeille" *Schubert-Wilhelmj*

7.45. Ethel Ashcroft.

"Beloved, it is Morn!" . . . *Florence Aylward*

"The Lament of Isis" *Bantock*

"The Kerry Dance" *Molloy* (1)

7.55. W. T. Bonner.

Prestissimo *P. E. Bach*

Sonata *D. Scarlatti*

Andante, Rondo Capriccioso . . . *Mendelssohn*

8.5. James Frost.

Prologue, "Pagliacci" *Leoncavallo*

"Gray Days" *Johnson*

8.15. Mollie Hackney.

"A Little Twilight Song"
Coningsby Clarke

"Down Vauxhall Way" . . . *Herbert Oliver* (8)

8.25-9.15 (approx.).—Speeches relayed from the
CIVIL SERVICE DINNER. S.B. from
London.

9.15. Harry Freeman.

"Indian Lament" *Dvorak-Kreisler*

Valse *Brahms-Hochstein*

Mollie Hackney and James Frost.

"Trot Here and There" ("Veronique")
Message

9.30.—WEATHER FORECAST and NEWS.
S.B. from London.

Colonel The MASTER OF SEMPILL. S.B.
from London.

Local News.

10.0. Ethel Ashcroft.

"I Love Thee" *Grieg*

"Happy Song" *Teresa del Riego*

10.5. W. T. Bonner.

Tarantelle in F Minor *Heller*

10.10. James Frost.

"The Sweetest Flower That Blows"
Hawley

10.15. Harry Freeman.

Rondo *De Beriot*

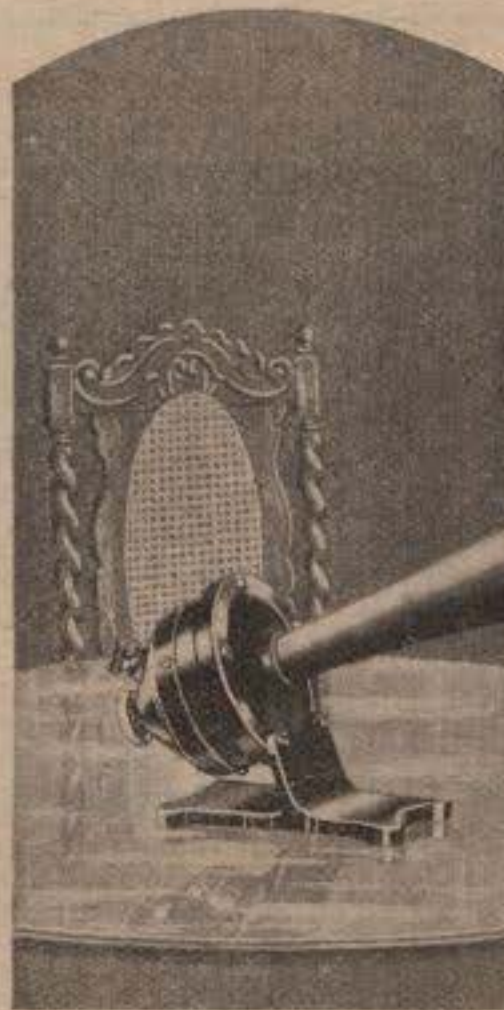
10.20. Mollie Hackney.

"Neath My Lattice" *Sullivan*

10.25. Mollie Hackney, Ethel Ashcroft, J. Frost.

"Queen of the Night" *Henry Smart*

10.30.—Close down.



TRUEMUSIC MINOR Loud Speaker 21/-



T. M. C. No. 2a Headphones, 4,000 ohms.
19/6



T. M. C. No. 3 Lightweight Headphones,
4,000 ohms, 22/6

This Loudspeaker is now supplied with a stand, as shown. There is, however, no increase in the price. The resistance is 2,000 ohms.

Finished outside in nigger-brown, with copper-plated terminals, the "TrueMusic Minor" is one of the most pleasing and attractive on the market. The inside of the horn is of lacquered copper, giving a bright and cheery effect—yet it does not need polishing.

Ask to see the "TrueMusic Minor" Loudspeaker at your favourite Wireless Shop. Its performance will delight you.

The "Minor" reproduces all kinds of Broadcasting perfectly. It will do full justice to the most elaborate set, and will get the best out of a small one.

All the family can enjoy Broadcasting for the cost of one pair of 'phones.

For "DX" working or crystal sets, T.M.C. Headphones are just what you want; sensitive and clear-toned. They are comfortable to wear, and absolutely reliable. Remember that all T.M.C. apparatus carries a twelve months' guarantee.

LOUD SPEAKERS

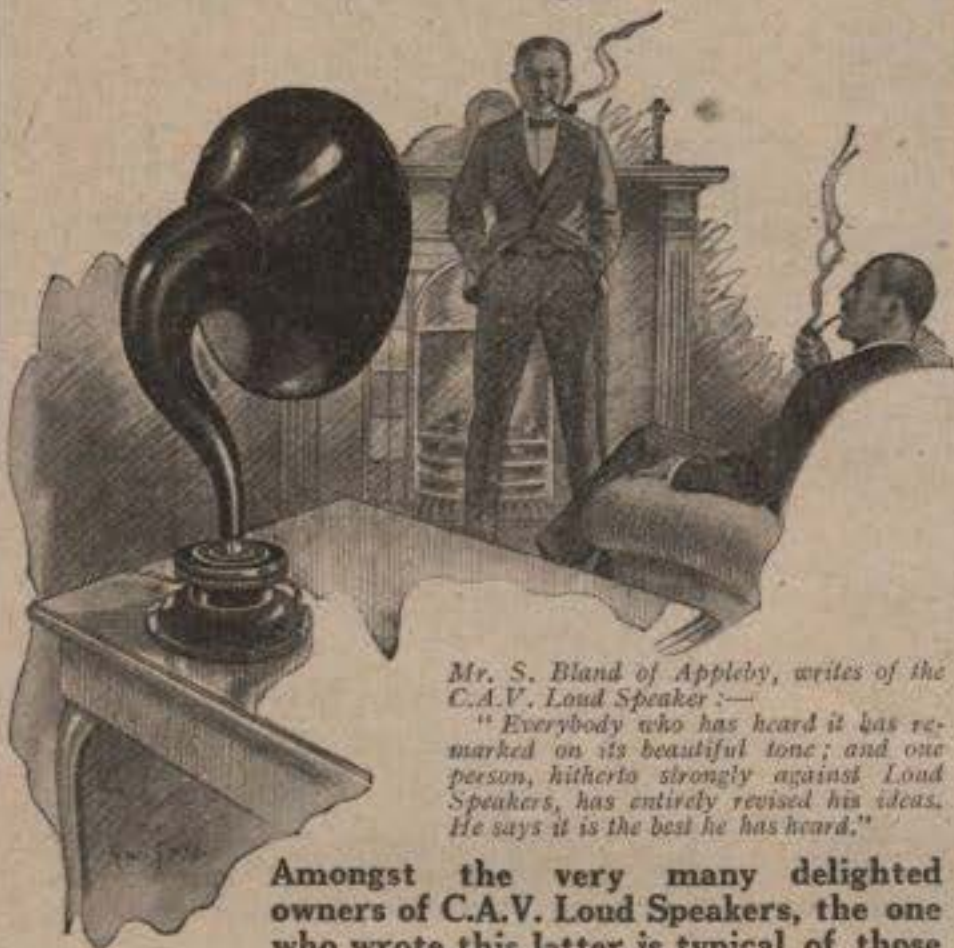
TrueMusic Minor	- - - -	£1 1 0
TrueMusic Junior	- - - -	2 10 0
TrueMusic Standard	- - - -	5 0 0
TrueMusic Concert Grand	- - - -	6 10 0

But it must be T. M. C.

T M C

The Telephone Manufacturing Co., Ltd. (Makers of the famous Laryngophone),
Hollingsworth Works, West Dulwich, S.E.21.

"Has entirely re-vised his ideas of Loud Speakers"



Mr. S. Bland of Appleby, writes of the C.A.V. Loud Speaker:—
 "Everybody who has heard it has remarked on its beautiful tone; and one person, hitherto strongly against Loud Speakers, has entirely revised his ideas. He says it is the best he has heard."

Amongst the very many delighted owners of C.A.V. Loud Speakers, the one who wrote this letter is typical of those who have been converted by the C.A.V. It is a "Loud Speaker" that would be more correctly called a Musical Instrument, and one that is as far removed from ordinary Loud Speakers as the present-day receiving sets are different from those of early "Broadcasting" days.

The "C.A.V." is produced by the Pioneers of Electrical Equipment for Motor Cars. Proprietary features in design combined with excellent workmanship make it in every detail worthy of its name. The diaphragm is securely held in the head of the base—the magnets being permanently sealed in position

by special wax. Derangement by vibration is therefore impossible and the diaphragm is continually in a parallel plane to the magnets. Listen and be "converted." Your local Wireless Dealer can demonstrate to you. Should he be out of stock, we can supply within two or three hours.

Immediate Delivery

"Tom-Tit" No. 5001. Black Crystalline Enamel	2,000 Ohms	30/-
Height 15 1/2 in.	No. 5002. Black Bright Enamel	2,000 Ohms
"Junior" No. 5008. Black Crystalline Enamel	2,000 Ohms	55/-
Height 18 in.	No. 5007. Black Satin Enamel	2,000 Ohms
"Standard" No. 5025. Black Crystalline Enamel	120 Ohms	95/-
Height 22 in.	No. 5026. Black Satin Enamel	120 Ohms
No. 5015. Black Crystalline Enamel	2,000 Ohms	100/-
No. 5016. Black Satin Enamel	2,000 Ohms	
No. 5020. Black Crystalline Enamel	4,000 Ohms	110/-
No. 5021. Black Satin Enamel	4,000 Ohms	



The Loud Speaker with a great name behind it

To the Trade: We guarantee immediate delivery of all C.A.V. Loud Speakers. You can obtain supplies from your usual factors, or from any C.A.V. Service Station (there is one in every large town) or direct from Works.

Obtainable from all Radio Dealers. Catalogues sent post free on request.

C.A. Vandervell & Co. Ltd.
 WARPLE WAY, ACTON, LONDON, W.3

Telephone: Chiswick 2200 (7 lines).
 Telegrams: Vanteria Phone, London.

FLUXITE SPELLS SUCCESS.



Soldering spells success to any wireless circuit and FLUXITE spells success to any soldering job. Delicate currents want no hindrances in the form of bad connections—one of the worst offenders, by the way, is the screw terminal, illustrated above—far better to solder the wire to the stem, making it sound and secure and a perfect conductor.

Soldering is simple when you've a tin of FLUXITE to help. A mere touch of FLUXITE makes light of the most ticklish job.

ASK YOUR IRONMONGER OR HARDWARE DEALER TO SHOW YOU THE NEAT LITTLE

FLUXITE SOLDERING SET.

PRICE 7/6

It is perfectly simple to use, and will last for years in constant use. It contains a special "small-space" Soldering Iron, with non-heating metal handle, a Pocket Blowlamp, FLUXITE, Solder, etc., and full instructions. Price 7/6. Write to us should you be unable to obtain it.



FLUXITE SIMPLIFIES SOLDERING

All Hardware and Ironmongery Stores sell FLUXITE in tins, price 8d., 1/4, and 2/8.

Buy a tin to-day.
FLUXITE LTD., 328, Bevington Street, London, S.E.16.

ANOTHER USE FOR FLUXITE
 HARDENING TOOLS & CASE HARDENING
 ASK FOR LEAFLET ON IMPROVED METHODS

G.W.I. VALVE RENEWALS.

THE FIRST OFFERED—NEARLY 3 YEARS AGO.

Our credentials, and your satisfaction, proved by increasing demand making our necessity for increased production.

OUR EXTENSIVE ADDITIONAL VALVE MAKING PLANT—which includes the latest type appliances—IS NOW IN PRODUCTION.

Most comprehensive service and prompt delivery now assured.

ALMOST ANY TYPE VALVE CAN NOW BE SATISFACTORILY RENEWED.

GUARANTEED TONE AND POWER PERFECT.

STANDARD TYPES, Bright Emitters .. from 6/6 each

DULL EMITTERS, .25 Amp.	10/6	} Carriage Paid.
WECOVALVES	12/6	
POWER VALVES	15/-	

Terms cash with order. Delivery 3 to 7 days according to type.

G.W.I. LTD.,

THE PIONEER VALVE RENEWAL SPECIALISTS,

43, Grafton Street, Tottenham Court Road, London, W.1.

Agents now wanted everywhere. Good terms, guaranteed deliveries.

SEND

£1 Only

Send 20/- to-day, together with your order for the "Tonyphone," and this wonderful set, which receives all B.B.C. stations, will be delivered complete, including all accessories. You pay a further £1 each month afterwards. The total cost is only £15 9s., or, if you prefer, £14 5s. cash.

"Tonyphone" Super Two-Valves

Complete with Accumulator, H.T. Battery, Aerial, 1 pair 4,000 ohms Headphones, and two Valves—one High Frequency and one Detector. All Royalties paid.



Send to-day and enjoy broadcasting NOW.

BRITISH ENGINEERING PRODUCTS CO.

(Appliances Dept.), Windsor House, Victoria Street, London, S.W.1.

Swansea Programme.

5SX 485 M.

Week Beginning February 15th, 1925.

SUNDAY, February 15th.

3.0-5.30. } Programmes S.B. from Cardiff.
6.30-8.0. }
9.0-10.45.—B.N.O.C. Concert. S.B. from Liverpool.

MONDAY, February 16th, and WEDNESDAY, February 18th.

3.0-4.0.—The Castle Cinema Orchestra relayed from the Castle Cinema. Musical Director, Jack Arnold.
5.0-5.15.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
7.0 onwards.—Programme S.B. from Cardiff.

TUESDAY, February 17th.

3.0-4.0.—Gramophone Records.
5.15-6.0.—CHILDREN'S CORNER.
7.0-11.0.—Programme S.B. from London.

THURSDAY, February 19th.

3.0-4.0.—T. D. Jones's Trio.
5.15-6.0.—CHILDREN'S CORNER.
7.0-11.0.—Programme S.B. from London.

FRIDAY, February 20th.

3.0-4.0.—The Castle Cinema Orchestra.
5.0-5.15.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
7.0.—WEATHER FORECAST and NEWS. S.B. from London.

PERCY SCHOLES. S.B. from London. Local News.

MERCEDES MARSH (Soprano).
DAVID HARRY (Tenor).
MORGAN LLOYD (Solo Violin).
HARRY PAGE (Bass).
BRYN FRANCIS (Baritone).
ALF THOMAS (Comedian).
THE TAWE GLEE SINGERS:
Conductor, T. D. JONES.

7.30. Glee Singers.
"Come, Let Us March".....De Rille (2)
"The Little Church".....Becker (2)
"Tom, the Piper's Son".....Kendall (2)
Mercedes Marsh.
"By the Waters of Minnetonka" Lieurance
"One Morning Very Early".....Sanderson (1)
"I Hear a Thrush at Eve".....Cadman (1)
Morgan Lloyd.
"Gipsy Melodies".....Sarasate
"Old English Dance".....Dale (17)
Harry Page.
"The Lute Player".....Allitsen
"Harlequin".....Sanderson (1)
8.10. Glee Singers.
"Harlech".....arr. Harry Evans
"Llwyn Onn".....T. D. Jones
"Y Delyn Awi".....Pughe Evans
Alf Thomas.
"The Fireman" (Burlesque Song) Devine

8.25-9.15 (approx.).—Speeches relayed from the CIVIL SERVICE DINNER. S.B. from London.
9.15. Mercedes Marsh.
"To-Day the Thrush Woke Me".....Newton
"I Hear Your Voice".....Forrester
"The Jewel Song" ("Faust").....Gounod
Alf Thomas.
"Maitha," or "The Henpecked Husband"
Woorring

9.30.—WEATHER FORECAST and NEWS. S.B. from London.
Colonel The MASTER OF SEMPILL. S.B. from London. Local News.
10.0. Glee Singers.
"Ar Hyd y Nos".....arr. Harry Evans
"Loch Lomond".....Jordan
"A Village Wedding".....De Rille (2)
Morgan Lloyd.
"On Wings of Song".....Mendelssohn
"Souvenir".....Drdla
"Serenade".....Picrre
Glee Singers.
"On the Ramparts".....Saintis (2)

10.30.—Close down.
SATURDAY, February 21st.
3.0-4.0.—The Castle Cinema Orchestra.
5.15-6.0.—CHILDREN'S CORNER.
7.0-12.0.—Programme S.B. from London.

Edinburgh Programme.

(Continued from page 363.)

8.55. Band.
Fantasia, "Voyage on a Troopship" Miller
American Skotch, "By the Swanee River".....Myddleton

9.15. Arthur W. Hayes.
Selections from the Works of Charles Dickens.

9.30.—WEATHER FORECAST and NEWS. S.B. from London.
Colonel The MASTER OF SEMPILL. S.B. from London.

G. L. MARSHALL: Station Topics. Local News.

10.5. (approx.). Betty Gould.
Operatic Songs.
Hindu Song ("Sadko") Rimsky-Korsakov
"Can'st Thou See Me Unforgiven?" ("Don Giovanni").....Mozart
"Love is Cruel" ("Merrie England")
German

10.20. Band.
Selection, "Lilac Time".....Cluteam
10.30.—Close down.

SATURDAY, February 21st.

3.0-4.0.—The Station Pianoforte Trio.
5.0-6.0.—CHILDREN'S CORNER.
7.0-12.0.—Programme S.B. from London.

Leeds-Bradford Programme.

(Continued from page 367.)

9.30.—WEATHER FORECAST and NEWS. S.B. from London.
Colonel The MASTER OF SEMPILL. S.B. from London. Local News.

10.0. "THE MAID O' THE INN."
(Cecil Moon.)
A Comedy, with Music, in Two Scenes.
Scene 1.: The Parlour at the "Mermaid" Inn. Morning.
Scene 2.: The Same. Two Weeks Later. Evening.

Cast:
Bess (the Maid o' the Inn) ANNIE COCKCROFT
Harry Saul, R.N. (Her Friend) WILFRID HUDSON
Bob Stirk (in love with Bess) HERBERT BUTTERWORTH
Danny (the Village Postman) JACK ALLERTON
Tom Watkins } E. PLACKETT } of the
Bill Raper } C. HOWITT } "Thial-ians."
Men of the Village.
Dick Weston } W. TURNER
Med Read } C. THOMPSON
11.10.—Close down.

Liverpool Programme.

(Continued from page 369.)

Orchestra.
8.25.—"Two Hungarian Dances".....Brahms
Speeches relayed from the CIVIL SERVICE DINNER. S.B. from London.

Orchestra.
March, "Hongroise".....Berlioz
9.30-10.0.—Programme S.B. from London.
Gertrude Edgard.

"Strida la Vampa" ("Il Trovatore") Verdi
"O Tender Shadows" ("Dinorah")
Meyerbeer

10.10. Orchestra.
"Sylvia Ballet".....Delibes
George Hill.
"The Two Grenadiers".....Schumann
"Devotion".....Strauss
"Morning" }Wol
"Weyla" }

Orchestra.
Overture, "Oberon".....Weber
10.45.—Close down.

SATURDAY, February 21st.

3.0-4.0.—Organ Recital, relayed from St. George's Hall.
5.30-6.30.—CHILDREN'S CORNER.
7.0-12.0.—Programme S.B. from London.

Radio Corner

Have you seen the M H film showing at all London Cinemas ?

THE LONDON HOME OF



PRODUCTS



We have Sets which Receive all British and Continental Broadcast Stations, and all Components Required for Home-Constructed Sets.

Call or write stating your requirements. Full details will be sent you.

L.M. MICHAEL LTD

Manufacturers of Wireless and Scientific Apparatus.

Radio Corner, 179, Strand, London, W.C.2

Barclays 717.

ACCUMULATORS RE-CHARGED FREE

in your own home! THE

NEW ULINKIN IS ONLY 12/6

The enormous success of the Standard Model ULINKIN D.C. Battery Charger (nearly 2,000 now in use), has resulted in numerous requests for a cheaper model within the reach of the modest purse.

Whilst still recommending the Standard Model ULINKIN as the simplest and the most reliable Direct Current Charger on the market, we now introduce our new ULINKIN JUNIOR which at 12/6d. is the cheapest home charger on the market, yet is guaranteed to perform the work as efficiently as similar instruments at twice the price.

ULINKIN JUNIOR.....For charging wireless accumulators of any voltage up to 5 amps. Complete with instructions and cable for connecting. 12/6 Post Free.

ULINKIN STANDARD MODEL.....The famous Home Charger, as illustrated, with ammeter, complete with cable and instructions for charging accumulators up to 5 amps. on D.C. supply from 50 to 250 volts. 42/- Post Free.

ULINKIN SENIOR.....For garages, workshops, large houses, etc., for charging accumulators of any voltage up to 10 amps. Complete with ammeter, cable and instructions. 52/- Carr. Free.

SIMPLE TO FIX AND USE. Saves its cost within a few weeks, yet lasts a lifetime.

Illustrated Pamphlet and full particulars post free on request.

GRAN-GOLDMAN SERVICE Co. (Dept. R30).

71, Fleet St., London, E.C.4. Trade Enquiries Invited.



Somebody pushed me—
they did! they did!!

DADS

in fact, the whole family pushed me into buying a

C.A.C. DUO-VALVE RECEIVER

and I don't regret it a little bit—the results are marvellous.

Besides, the instrument only costs a fiver, complete in a handsome dark oak Jacobean Cabinet, and the components inside are the best it is possible to obtain.

Even after I bought all the accessories—two dull emitter valves, high tension battery, accumulator, a pair of 'phones, and paid the Marconi Royalties, the whole installation cost me under £11, and Jones himself admits I get better results than he does on his thirty guinea set. I am recommending it to all my friends.

TAKE MY TIP AND WRITE FOR FULL PARTICULARS.

The CITY ACCUMULATOR Co.
10, RANGOON STREET,
LONDON, E.C.3.

And at Leeds and Bournemouth.
Agents Everywhere.

TRADE STUDIO LTD.



MUMS

VERA

JOEY

PHYLLIS

The Crystal with
Valve
Power



NEUTRON

THE WORLD'S GREATEST RADIO CRYSTAL

NEUTRON has to-day probably the largest sale of all Crystals in Great Britain. It has attained this position through merit—it has a wonderful record of long-distance results to its credit, and testimonies to its extraordinary sensitiveness and reliability reach us by hundreds each week.

1/6

Sole Distributors:
V. ZEITLIN & SONS,
144, Theobalds Rd., London, W.C.1.
Phone: Museum 6841.

Sole Producers:
NEUTRON LTD.,
Sicilian House, Southampton Row, London, W.C.1.
Phone: Museum 2677.



RADIO
INSTRUMENTS

EXCLUSIVE in DESIGN
and in the

QUALITY of REPRODUCTION



The Curtis "Windsor."

THE exquisite purity of reproduction with the Curtis Allafort Loudspeaker supplied exclusively with the Curtis-Windsor Model only cannot be equalled by any other loudspeaker, irrespective of design, type or price.

We would be happy to advise clients as to the model best suited to their requirements and to supervise the efficient erection of the complete installation in conjunction with their local agent.

Prices range from
£25 to 200 Gns.

Catalogue free on request.

PETER CURTIS, LTD.

In conjunction with
The PARAGON RUBBER MFG. Co., Ltd.,
75, CAMDEN ROAD, N.W.1

Telegrams: "Paracurtex." Phone: North 2112

BIRMINGHAM: 70, Newhall Street,
Central 7236.

MANCHESTER: 312, Deansgate,
Central 5095.

Barcode 944

VALVE RENEWALS

We repair, by our patent process (for which we have National Laboratory's report of efficiency), all standard types of valves

Up to 3 valves cheapest method is to send by letter post.

(excepting Dull Emitters) at

6/6 carriage paid,

Remittance must be enclosed with valves.

AND GUARANTEE at least equal efficiency to new valves. to return in seven days.

OR REFUND YOUR MONEY WITHOUT QUIBBLE.

THE ECLAT ELECTRIC MANUFACTURING CO., LTD.,
SPENCER HILL RD., WIMBLEDON, S.W.19.

Fit a 'Malone' TO YOUR 'PHONE

and you get results rivalling a
50/- LOUD SPEAKER

FOR ONLY 7/6 Postage 1/-

Fitted in a second, sound British made, complete, strongly packed. Send P.O. 8/6 at once and listen in comfort. Send stamp for free descriptive pamphlet.

Write direct to Works:—

MALONE & CO., LEIGH-ON-SEA, ESSEX.



BRITISH MADE VALVES for 6/6

R.A.F. Valves by Oxram Co. 6/6, the finest H.F. and Det. Valve ever offered under 13/-. 4-pin "C.R." type 8/6. Marconi "Rounds N" Valves 3/6. Valves were made under Government supervision. There is no valve to touch them under double the price. Sent by post at buyer's risk. 5-valve R.A.F. Receivers with Valves £7 post free. 3-valve Set £3 15s. Valves extra. Loud Speakers 18/-. Milliameters from 20/-. Recorders £6. Alternators 70/-. Wavemeters £3. Transmitters 15/- to £5 10s. Instruments of all types. £10,000 Stock of Apparatus. Discounts.

Call and inspect or send 4d. Stamps for 92-page Illustrated Catalogue of Radio Supplies.

"C" type. **LESLIE DIXON & CO.,** 9, Colonial Avenue, Minories, London, E.1.



You Must Buy

THIS SPLENDID ISSUE
ON SALE FEB. 14th

**108 PAGES
ONLY SIXPENCE**

The Wireless Constructor has the largest circulation of any wireless magazine in the World.

For Beginners, Amateurs & Experts

SELECTION FROM CONTENTS

A 2-VALVE LOUD SPEAKER SET
By the Editor.

A NEW CRYSTAL-VALVE CIRCUIT
*By John Scott-Taggart, F.Inst.P.,
A.M.I.E.E.*

THE "STAY-SET" CRYSTAL
RECEIVER
By D. J. S. Harill, B.Sc.

AERIALS FOR AWKWARD
PLACES

A SHARP TUNING SINGLE
VALVE SET
By Stanley G. Raltee, Member I.R.E.

AN INEXPENSIVE 2-VALVE
AMPLIFIER
By John W. Barber.

A MIDGET CRYSTAL SET
and many other articles of interest.
FREE BLUE PRINT WITH EVERY COPY.



SIXPENCE MONTHLY.

The Wireless Constructor presents page after page of fascinating information, interesting articles and useful notes, written in such a clear and lucid manner that even the most inexperienced will not find himself out of his depth.

Any reader of the constructional articles which appear in this magazine can straightaway build the set which interests him and yet be absolutely confident that provided he follows the instructions given, he will obtain the results described and guaranteed by the authors.

"*The Wireless Constructor*" is produced by Radio Press, Ltd., the largest wireless publishers in the world (Proprietors also of "*Wireless Weekly*" and of "*Modern Wireless*"). Like all Radio Press publications, it is under the general and personal direction of John Scott-Taggart, F. Inst. P., A.M.I.E.E., the well-known authority and inventor of the S.T.100, and many other popular circuits.

The Wireless Constructor

Obtainable from all Bookstalls, Newsagents and Booksellers, or 8s. 6d. per annum, post free.

Advt. of the Radio Press, Ltd., Bush House, Strand, London, W.C.2.



ONE OF THE
FAMOUS
SPARTA
SERIES

The
**LITTLE
"SPARTA"**

Loud Speaker will give purity of reproduction comparable with that of its famous full size prototype—the standard Sparta—and ample volume of sound for indoor use. The Little Sparta is no toy—nothing has been omitted which can add to its efficiency. The Perfect miniature Speaker.

Ask your Dealer for it.

Type J, 120 ohms
Type HJ, 2,000 ohms
Type HHJ, 4,000 ohms

Fuller's United Electric
Works Limited,
Chadwell Heath, Essex

55/-

Send for List No. 325 London Depot: 58, HIGH STREET, W.C.2

**Fifteen headphones
on one set—**

with
**Russell's
Hertzite**

In the
Little
Sealed Box.
Retail Price
1/- Per
Piece.

"remarkably good results"

L. G. Russell, Esq.,
1-7, Hill Street, Birmingham. Nov. 1924.

Dear Sir,
It occurred to us that you would like to know our
unique test of Headphones on Armistice Day.

We connected up fifteen (15) pairs of Headphones,
to one very ordinary Crystal set and got remarkably
good results, as testified by fifteen work people,
ALL of whom listened-in.

As this was only a short Aerial, and lead water
pipe earth, with an old Variometer tuned set, you
should be greatly pleased to hear the above result was
obtained with one of your Crystals taken haphazard.

Yours faithfully, F. E. Wilson & Co.

The
L. G. Russell Laboratories,
1-7, Hill Street Birmingham.
(Opposite Empire Theatre.)

**BEGINNER'S GUIDE TO
WIRELESS**

This 160 page book explains everything you wish to know about Wireless, and enables any beginner to make Wireless Sets which are unequalled in price, quality or efficiency. Exact cost of each set clearly stated.

FULL INSTRUCTIONS WITH 28 DIAGRAMS

FOR MAKING SUPER EFFICIENT CRYSTAL SETS, SINGLE VALVE SETS, ONE AND TWO VALVE AMPLIFIERS, DUAL AMPLIFICATION SETS, ALSO THE LATEST IMPROVED TYPES OF TWO, THREE AND FOUR VALVE TUNED ANODE RECEIVERS.

Soldering or special tools not required.

IF YOU ALREADY HAVE A
WIRELESS SET, GET THIS BOOK
AND MAKE A BETTER ONE.

Satisfaction guaranteed or money returned.

SAXON RADIO CO. (DEPT. 24), SOUTH SHORE, BLACKPOOL.

**1/3 POST
FREE**

**A NEW CHASEWAY TRIUMPH
THE HOME BATTERY CHARGER FOR
ALTERNATING CURRENT**

At last an A.C. Charger nearer to the public pocket and to meet practically any charging demand.

Invented and manufactured in our own works. Absolutely safe and reliable. Absolutely mechanical; no liquid; no chemicals; no expensive bulbs to be replaced at frequent intervals.

Self-contained and complete. No extras to buy.

Cost of charging current will be infinitesimal. Costs less than any other, but is the maximum of efficiency.

Will charge from 0.5 amp., adjustable for 2 to 12-volt Wireless and Motor Batteries. Silent running—no vibrating armatures. Simplicity itself and can be fitted to any lamp holder or wall plug. Size only 7" x 6" x 4".

Send stamp for further details, price and illustrated catalogue of other "CHASEWAY" WIRELESS NOVEL NECESSITIES.

THE CHASE ELECTRICAL MFG. CO., Ltd.,
184, FLEET STREET, London, E.C.4.

Phone: Central 1539.

VP.

A.J.S.

WIRELESS HANDBOOK

Primarily intended to serve as a Guide to the A.J.S. Wireless Receivers, the second edition (revised) of this 42-page handbook contains some very useful illustrations and information for users of wireless in general.

Copies (Post Free) 6^d. each

Obtainable from

A. J. STEVENS & CO. (1914), LTD.,
WIRELESS BRANCH, WOLVERHAMPTON.

CYMO SITE

IN every box of Cymosite you are certain of getting crystals that have been specially tested for constancy. No crystals ever known to get a poor Cymosite Crystal. From all Dealers or direct from: North Eastern Instrument Co., Durham Road, Low Fell, Gateshead-oo-Tyne.

26



Inst. Ad. 2215.



Factory Stocks of Wireless Cabinets!

Put your set in complete—used by many thousands for Radio Perfection. Specification:—Removable Back. H.T. Compartment 3 1/2 ins. Best Fittings. Best Materials. Best Finish.

De Luxe Superfine Size Overall.	Published (Midrange).	Sold (Oak).
17 x 9 x 9	37/6	32/6
17 x 12 x 9	47/6	40/-
17 x 15 x 9	58/6	48/6
17 x 18 x 9	68/6	58/6

MATCHES FINEST FURNITURE!

Carrage Paid. Send P.O. Now to

Picketts Radio Works (R.T.), Albion Road, Bexley Heath, S.E.

**VALVE
REPAIRS**

Our Speciality is:
**LOW CURRENT CONSUMPTION
HIGH AMPLIFICATION
HARD VACUUM and
QUICK DELIVERY.**

Valves carefully tested before despatch and breakage in transit replaced.

Ring **6/6** each. Special terms for Types D.B. & Power Valves.

WIRELESS VALVES

Address: Order Dept.,
56, Rosebery Av., E.C.1.

Exide

The LONG-LIFE BATTERY

*A type for every
radio requirement*

Manufactured by

THE Chloride ELECTRICAL STORAGE
COMPANY LIMITED.

At CLIFTON JUNCTION, Nr. Manchester.

LONDON:
219-229, Shaftesbury Avenue, W.C.2.

BIRMINGHAM:
58, Dale End

BRISTOL:
22 Victoria Street

MANCHESTER:
1 Bridge Street

MADE AT THE LARGEST BATTERY WORKS IN THE BRITISH EMPIRE.



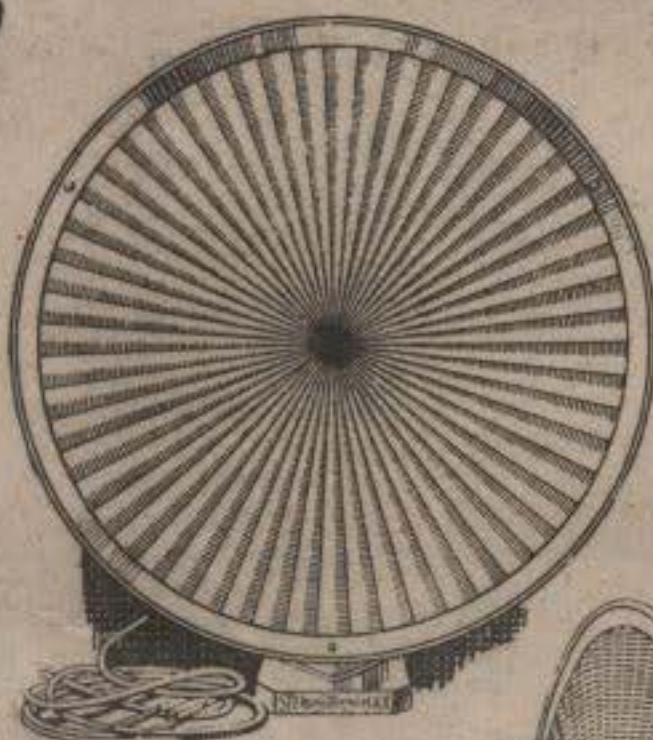
It cannot be done!

No one has ever succeeded in getting a quart into a pint jug! The same line of reasoning makes it folly to expect for shillings the value that pounds can give. How true this is of loud speakers. For when an article is made by a firm of repute and is sold at a price higher than the general run of prices in that particular line of goods, there are always some sound reasons for its purchase.

The Sterling "Primax" Hornless Loud Speaker is sold at £7 15s., and it is worth every penny of that sum because:—

1. The Sterling "Primax" costs a great deal more than ordinary loud speakers to manufacture and gives the public a radio reproduction of a standard that is absolutely perfect—an even distribution of sound, unquestionable tone fidelity and a volume ample for all normal indoor uses.
2. The Sterling "Primax" is bronze finished all over, and this, in conjunction with its attractive design, makes it not only a perfect reproducer of music, song and speech, but also a musical instrument as pleasantly agreeable in appearance as the very finest piano.

A test of its powers at any good radio dealers will prove how worth while it is to buy a "Primax."

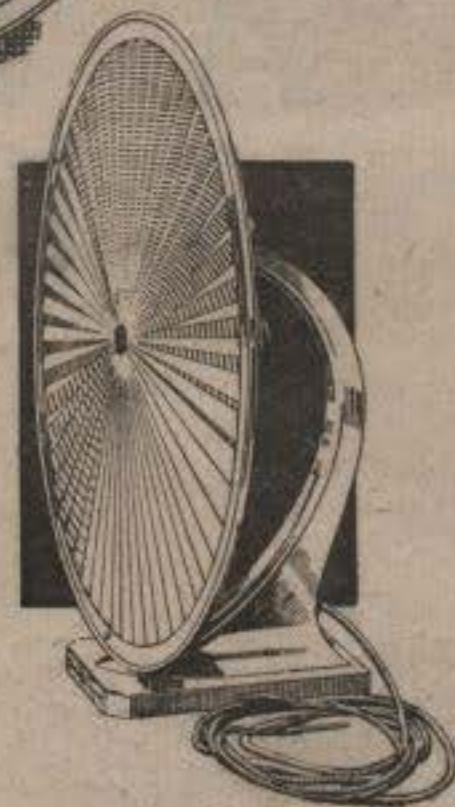


The Sterling "Primax" Hornless Loud Speaker has a pleated diaphragm mounted in a frame and supported on a graceful stand. It is connected to the receiver in exactly the same way as an ordinary loud speaker. Complete with 12 ft. of flexible cord (2,000 ohms resistance.)

PRICE

£7 : 15 : 0

*At all good
radio dealers*



STERLING
PRIMAX
LOUD SPEAKER HORNLESS
BRONZED FINISH

Gives more! Does more!! Costs more!!! Worth more!!!!

Advt. of **STERLING TELEPHONE AND ELECTRIC CO., LTD.**
210-212, TOTTENHAM COURT ROAD, LONDON, W.1 Works: DAGENHAM, ESSEX

Sole Manufacturers and Licensees of the "Primax" Loud Speaker