

IMPORTANT NEW SERIES By Sir OLIVER LODGE.



THE OFFICIAL ORGAN OF THE B.B.C.

Vol. 6. No. 71.

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 1st.

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:

A FATHER LECTURES THE "UNCLES."
By S. R. Littlewood.

WIRELESS FOR THE BLIND.
By Captain Ian Fraser, C.B.E., M.P.

LONDON'S WIRELESS ORCHESTRA.
By Rex F. Palmer.

OFFICIAL NEWS AND VIEWS.

LISTENERS' LETTERS.

CONTINENTAL BROADCASTING.

The Mystery of the Ether.

By Sir OLIVER LODGE.

[Sir Oliver Lodge is broadcasting from London a course of lectures on "Ether and Reality." These lectures are of remarkable general interest in that they challenge many popular and some scientific theories. "The Radio Times" has acquired the exclusive serial rights and will publish four of Sir Oliver's lectures in their broadcast form. The first appears below. Subsequently all seven lectures will be published as one of the volumes of Messrs. Hodder and Stoughton's "Broadcast Library."]

WHAT fills empty space? What is there between the worlds? Not air: the atmosphere soon stops, and beyond there seems nothing—nothing appreciable, only intense cold.

"The wind that blows between the worlds, it out him like a knife,"

says Rudyard Kipling, concerning one Tomlinson. Well, that is the ether; it is absolutely cold. We on the comfortable earth are five hundred Fahrenheit degrees warmer. Five hundred degrees hotter would be red-hot: five hundred degrees colder is the temperature of space.

Space is full, not of matter, but of ether. The ether is other than matter; and it fills all space in the most thorough manner: there is nothing so omnipresent and so efficient in the physical universe.

We employ the ether every day and every minute of our lives; it is the very breath of our material existence; but it escapes what are called our five senses, and so we usually know little about it. Some few even deny its existence. This is ungrateful and should be remedied.

The first thing to realize about the ether is its absolute continuity. Let me explain. Matter is discontinuous; it consists of portions with gaps between. You see this clearly enough in the stars; they are bodies separated by wide, empty spaces, they are not massed together. There must be a reason for this; the

reason is partly known, but is not easy: we will be satisfied with the fact that it is so.

Matter is full of discontinuity. The universe consists mostly of empty space: the portions of matter in space are all well separated from each other in proportion to their size. Fire an infinitely long-range projectile into the sky, and the chances are it will not hit anything. Lord Kelvin reckoned that the chance of hitting anything by such a projectile was about the same as the chance of hitting a bird if you fired a gun at random. That is one of the first things to realize about matter: there are great gaps between its particles.

You may say that is all very well for the sky and the stars and planets; but what about the earth? What about a piece of rock, or furniture, or any solid object? Do you mean to say that the particles of a body like that are widely separated, with great spaces between them in proportion to their size, and that a straight line might penetrate them deeply without encountering a particle?

Yes, I do: that is what I mean by the discontinuity of matter. It is discontinuous on a small scale as well as on a large scale. It does not appear so, but that is only because our senses are not fine enough to tell us about things on a small scale: we can only see things on a big scale.

A microscope is of some assistance, but nothing like sufficient: no microscope, however powerful, can show us an atom, still less can it show us how an atom is composed and how far apart its ultimate particles are: we know this otherwise and indirectly. It is, however, common knowledge, now, that matter is built up of minute electric charges, both negative and positive, which are called electrons and protons. It is also known that these electric units are so extremely minute that they are separated from

(Continued overleaf.)

The Mystery of the Ether.

(Continued from the previous page.)

one another like the planets in the solar system: the greater part of the atom is empty space, just like the sky on a small scale. Or, more clearly, if we could take a solid body and magnify it sufficiently (which is impossible), we should see it something like the night sky.

Since the particles of matter are thus separated from each other and never in contact, it would seem to follow that they were all independent of each other, disconnected, nothing uniting them—the particles completely separated by empty space. If there were nothing existent but matter, that would be so; there would be no unification, no binding force, no family relationship, nothing but separate, independent particles: that is what would happen if Space were really empty, and the universe would not be a cosmos, but a chaos.

The Force Between the Stars.

We know better than that; we know that the stars are not independent of each other; they are bound together into systems: there is a unifying and connecting force between them which is called Gravitation, though it is not understood. Hence the space between them cannot be really empty; the interspaces must be filled up somehow: there must be something which is without gaps, something really continuous, something which combines the whole together, welding all the separate bodies into a cosmos.

The same thing is true inside any solid body: the separated particles cohere, they are not independent of each other; there is no chaos to be found anywhere. The solid has a definite size and shape; and if it is a crystal, its shape may be beautiful and very definite.

There is evidently law and order reigning among the particles: however great the interstices between them, they must be full of something: space is not really empty, though it is empty of matter. Matter exists as separate particles, here one, there another. But the uniting "something" is not composed of particles at all; it is continuous: it unites the particles with a force which is known as Cohesion.

An Addition to the Elements.

What you choose to call this unifying "something" is of no consequence. The Ancients sometimes spoke of the "Ether," possibly as an addition to the usual four elements, and Sir Isaac Newton adopted this term for the officially connecting medium. The optical medium connects the particles together into a solid or a liquid, and the same medium connects the Heavenly Bodies together into systems and clusters and constellations and nebulae and the Milky Way.

All pieces of matter and all particles are connected together by the ether and by nothing else. In it they move freely, and of it they may be composed. We must study the kind of connection between matter and ether.

An Unsolved Problem.

The particles embedded in the ether are not independent of it, they are closely connected with it, it is probable that they are formed out of it: they are not like grains of sand suspended in water; they seem more like minute crystals in a mother liquor. The mode of connection between the particles and the ether is not known; it is earnestly being sought: but the fact that there is a connection has been known a long time. We know it, because a particle cannot quiver, or move, without disturbing the medium in which it is. A boat cannot oscillate on the surface of water without sending off waves or ripples; a bell cannot vibrate in air without sending out waves of sound; a particle cannot vibrate in ether without sending out waves of light.

So the second thing to learn about the ether is its property of conveying light. It seems curious to call it a "second" property, because historically it was the first—the first discovered, and the first on which attempts were made at elaboration. The Physics of the early part of the nineteenth century was almost wholly occupied with it: the highest genius was devoted to the theory of ether waves, and the climax was reached by Clerk Maxwell. The whole of the immense Science of Optics is involved, and grew out of it; but as with everything else it is difficult completely to understand and to realize clearly what is happening; certain things can be stated with apparent simplicity, but the full explanation is not yet attained.

The first and most definite fact, on which there is complete agreement, is the rate at which ether waves travel, the thing ordinarily called "the velocity of light." This speed is the most fundamental and absolute thing in the physical universe, and it is evidently related to some fundamental or constitutional velocity, the full meaning of which has still to be discovered. Meanwhile we can make elementary statements about what has been observed in connection with it.

The speed is measured by timing the interval required by light to travel a certain measured distance, whether it be a distance measured on the earth or a greater distance measured in the heavens. The results all agree; and there is no doubt that all ether waves, however else they differ, all travel at the same pace. The speed of light is not only the speed of that by which we see things, but it is the speed with which every disturbance travels in the ether of space.

Such disturbances may be the great waves (akin, as it were, to Atlantic rollers) which we employ in radio telegraphy; or they may be the small ripples which, when they break upon the shore of matter, excite heat; or they may be the minuter tremors which in enormous numbers enter the eye and operate the curious receiving mechanism there, so as to disturb the nerves and give us the sense of sight, or, by rearranging the chemicals on a glass plate or film, can reproduce the likeness of the objects which have emitted them; or they may be the still minuter tremors—small almost beyond imagination, and beyond the power of any microscope to utilize—fearfully rapid tremors or other vibrations which can be excited electrically, in a form which we know as X-rays. But whether big or small, they all travel at the same pace, with a speed far beyond anything in our experience, a speed which it seems impossible even for the ether to over-top.

Imagine a thread wrapped round the equator of the world, crossing all the continents and oceans and going right round the earth; stretch such a thread out into a straight line, that is the distance which light can travel in the seventh part of a second. To get the distance traversed by light in one second, the thread would have to be wrapped round the world seven times and then stretched out; such a thread would reach nearly to the moon.

The light of the moon takes a second and a quarter to reach the earth; from the sun it takes eight minutes; from the stars, even the bright

stars, it takes years or even centuries; while some of the dim and distant objects revealed in a large telescope we see only as they were a hundred thousand years ago. So immense is the scale of the Universe!

All this is well and even popularly known; the difficulties do not lie here; they lie in determining the exact nature of the waves and the way in which they are produced. We have to work by analogies for the most part. As a vibrating bell or string or tuning-fork excites waves in the air, so a vibrating electron excites waves in the ether. The processes are analogous, not identical, and if we tried to enter into more detail, we should get beyond our depth.

The Vehicle of Light.

Meanwhile, if ripples are travelling from distant objects, there must be something which is rippling. You cannot imagine space being thrown into vibration; there must be something in space which vibrates, and that "something" extends to the furthest visible object. This was our first idea of the ether of space: it is more than a century old, and the argument was as valid in 1825 as it is to-day. The ether was therefore called "the luminiferous ether," the light-carrier, the vehicle of light. Not of light only, but of every other link between the worlds and between the atoms; the vehicle of Gravitation, as Sir Isaac Newton suspected; the vehicle of Cohesion too, as we now know; the unifying and connecting mechanism which welds together the disconnected atoms of matter and makes cosmos out of chaos.

However evasive the ether is to our senses, it is a great reality, and we already know something definite about it.

These waves that we are now using will get to the Antipodes, say, New Zealand, in the 1-14th part of a second. How far will sound waves travel in the same time? Sound in air takes five seconds to go a mile. Consequently, in the 1-14th part of a second they go the 1-70th part of a mile, which is 25 yards—that is, to the back of the hall in which I might be speaking.

Appalling Magnitudes.

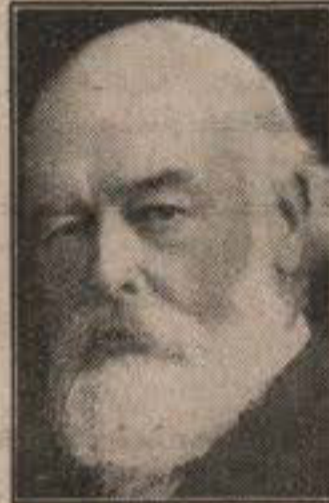
Ether waves travel just about a million times as quickly as sound waves; consequently, if the waves are of the same length, the vibrations would be a million times as rapid. But the ether waves by which we see are not of the same length: sound waves are a few feet in length, whereas, a row of ten thousand light waves is only an inch long. Consequently, the rate of vibration which the eye perceives is 500 million million per second—a quite incredible number!

But in dealing with the Universe we must not be afraid of large numbers: the magnitudes we deal with are many of them appalling, some of them appalling for size, others for smallness, some for rapidity, others for unknown and mysterious properties. We have as yet but little acquaintance with the Universe; sometimes we seem to know a great deal, at other times we realize that we hardly know anything.

The Mystery Which Surrounds Us.

Meanwhile, we grope along as best we can, and he is wisest who denies least of the mystery which surrounds us and the possibilities ahead.

To assert, requires knowledge; to deny, requires much more knowledge. Let us be satisfied with positive knowledge, so far as it has been vouchsafed to us, and leave negations to the self-sufficing and the omniscient. We can deny the self-contradictory and the absurd, but in the unknown and the mysterious, denials have no legitimate place; our business is carefully and cautiously to ascertain what is. We are surrounded by infinity, and the wealth of existence is such as to justify a faith in our highest conceptions, a hope in the possibilities which lie before us, and a charity which enables us to do our daily work and to love our fellow-men.



SIR OLIVER LODGE.

Official News and Views. GOSSIP ABOUT BROADCASTING.

Broadcasting Prince Henry.

THE Birmingham Station is helping the Royal National Lifeboat Institution to raise £10,000 in the Birmingham area for the purpose of equipping motor lifeboats. The speech of H.R.H. Prince Henry in the Town Hall at 2.30 on Tuesday, February 3rd, will be broadcast. Admiral Sir Doveton Starbuck's speech on Wednesday afternoon, and that of Princess Bibesco on Thursday, will also be broadcast.

A Special Sunday Service.

A special Wireless Sunday Evening Service will be conducted in the Birmingham Studio, on February 1st, by the Rev. A. E. Forrest. This is the first service of its kind to be broadcast in this country. The Music and Reading will be given by members of the Staff and the Station Repertory Company. Special Lessons will be read by Mr. Edgar, and the Hymns and Music will include Byrd's "Kyrie" from Mass for five voices and Bach's "Passion Chorale." The Rev. A. E. Forrest, who, through his close association with the Birmingham Station from its early days of Witton, has become known as the Station Chaplain, and who is Secretary of the Station's Religious Committee, will give the Address. After the service, a short organ recital by Mr. Christopher Edmunds, Mus. Bac., will be given.

Manchester's Request Nights.

Continual requests from listeners for their favourite pieces have led the Manchester Station to devote certain evenings entirely to request items. Such an evening will be held on Friday, February 13th, when the "2ZY" Orchestra will interpret listeners' wishes with items as varied as the Finale from Mendelssohn's "Italian Symphony," and the Overture to Ballo's *Bohemian Girl*. Miss Grace Ivell and Miss Vivian Worth, the entertainers, will take part in this programme.

A Magic Trip Round the World.

A musical tour round the world is being arranged by the London Station for February 9th. Much time will be spent moving from country to country in Europe before the greater leaps from Africa to Arabia, on to India, Tibet and China are taken. The return will be made at 10 p.m., via the Americas.

Miss Enma Dhali, a Scottish soprano who has studied folk songs of different nations, will give the French, Dutch, Swiss, Italian and Malayan songs. Miss Kari Forfang, a soprano well known in the Scandinavian concert world, will sing the Norwegian, Danish, Swedish, Finnish and German songs; and Mr. F. H. Etcheverria, a baritone of Spanish extraction, will sing Spanish, Portuguese and South American songs.

Broadcast Comic Opera.

The Comic Opera, *Les Cloches de Corneville* (Planquette), will be broadcast, with libretto, from Bournemouth on February 9th. Included in the cast are Mr. George Stone, Mr. Harold Stroud, Mr. Ernest Eady, Miss Marjorie Stone and Miss Gretta Don. The "GBM" Chorus and the Wireless Orchestra will also take part. The opera will be produced by Mr. W. R. Keene and Mr. George Stone, and will be conducted by Captain W. A. Featherstone.

An Irish Bagpipe Band.

Both an Irish and a Scottish Piper have appeared at the Belfast Station as soloists, but the Sir Henry Wilson Memorial Pipe Band, which won the All-Ireland Championship last year, will be the first bagpipe band to be broadcast in Ireland. They are to play on Saturday, February 14th, in a programme called "Novelty

Night," when the Station Orchestra will be heard only in music that has not hitherto been broadcast in Ireland.

A New Dickens Overture.

On Saturday, February 7th, the anniversary of the birth of Dickens, the Cardiff Station will provide a programme of music from Dickensian operas and songs of the period. A new overture, "Barnaby Rudge," composed by Mr. Warwick Braithwaite, the Cardiff Station Musical Director, will be performed for the first time. The Catterall Quartet is also giving a performance at the Cardiff Station on the same evening.

An effort is to be made to raise sufficient money to endow No. 48, Doughty Street, London, the house in which Dickens completed "Pickwick" and wrote "Oliver Twist" and "Nicholas Nickleby." The house was bought two years ago, and is now being put in order as a Dickens Museum, picture gallery, and a meeting-place for Dickensians.

The fund is being organized by the Dickens Fellowship, and the sum of £10,000 is required.

Birthday Celebrations at Cardiff.

Birthday celebrations will be the principal feature of the Cardiff Station programme on Friday, February 13th. Everyone connected with the station will be present in full force to make a jolly musical evening. Mr. J. C. W. Reith will broadcast a message at 8.30 p.m.

Later Broadcasting.

During the period covered by this issue the following stations will be broadcasting until 11 p.m.: Manchester, January 30th; Newcastle, February 2nd; Glasgow, February 6th.

"Stars" at Chelmsford.

A "Star-Ballad" Concert will be given by "5XX" on Tuesday, February 10th. This programme will include the names of Miss Carmen Hill, the popular mezzo-soprano; the lyric tenor, Mr. Sydney Coltham; Mr. Angus Morrison, pianist, and John Henry. The Salisbury Singers will open and close the programme.

Philharmonic Society's Concert.

The Liverpool Station is again relaying the first part of the Philharmonic Society's concert on February 10th. Mr. Eugene Goossens will be the conductor, and the orchestral items to be relayed are, Overture, "Froissart," Elgar, and "Military Symphony," Haydn.

The latter part of the programme will include tenor songs and pianoforte solos, and the evening will end with an hour's dance music by the "St. Louis Dance Band."

Cardiff's Symphony Concert.

On Saturday, February 14th, a Light Symphony Concert at the Cardiff Station will be simultaneously broadcast from the High-Power Station, "5XX." The music will include Beethoven's "Pastoral" Symphony, two entr'actes from *Carmen*, and the ever popular overture to the *Merry Wives of Windsor*. One of Elgar's compositions, the "Crown of India" Suite, will also be performed on this occasion. The vocalists will be Miss Astra Desmond and Mr. William Heseltine.

The Bells of St. Cuthbert's.

A complete religious service will be relayed from St. Cuthbert's Parish Church on the evening of Sunday, February 8th, when the preacher will be the Rev. James Black, D.D., of St. George's United Free Church, Edinburgh. Dr. Black is the successor to the Rev. Dr. John Kelman, the well-known divine who recently returned to London from the U.S.A. The service will be preceded by the bells of St.

Cuthbert's, and for this purpose a microphone will be installed in the tower.

Radio Education at Stoke.

Transmissions to schools are being started by the Stoke-on-Trent Station on Friday, February 13th. The first will be given by Mr. F. J. Stone, entitled "A Talk on Music to the Young Folk." This will be illustrated by the violin and pianoforte.

The Educational Advisory Committee, under the chairmanship of Mr. R. P. G. Williamson, is rendering valuable assistance to the station. It is hoped before long that most of the schools in the district will be in a position to take advantage of these weekly talks.

Holst's "The Planets."

The S.B. programme on Tuesday, February 10th, will consist mainly of band music played by the augmented "2LO" Military Band, conducted by Mr. Dan Godfrey. The most interesting of these items will be "Mars" and "Jupiter," from Holst's Symphonic Suite, "The Planets," and the Suite "Esquisses Caucasiennes" (Ippolitov-Ivanov), which has been broadcast before by the "2LO" Military Band.

Dr. Kendrick Pyne's Organ Recital.

The Organ Recital, from Manchester, by Dr. Kendrick Pyne, promised for Saturday, December 6th, which had to be cancelled owing to the Town Hall being required by the Civic Authorities, has now been fixed for Saturday, February 14th. Dr. Kendrick Pyne is giving the programme he originally chose, and in which is included Bach's Prelude and Fugue in A Minor, and Widor's Organ Symphony in F Minor.

A B.B.C. Rugby Team.

Mainly through the energies of Mr. Dan Godfrey, Junr., Conductor of the "2LO" Wireless Orchestra, the B.B.C. Headquarters and London Station Staffs have formed a Rugby Football XV. Mr. Dan Godfrey is an old Hull and East Riding and Richmond player. The first match will take place at Lower Sydenham to-morrow, Saturday, January 31st, at 2.30 p.m., when the team will play Britannic House "A." The B.B.C. Team will consist of: Back, P. Florence; Threequarter Backs: R. F. Palmer, A. G. Hibberd, R. B. S. Munn, C. A. Lewis; Half Backs: D. Hamilton, R. Blackwell; Forwards: D. Godfrey (Capt.), C. C. J. Frost, G. V. Rice, H. Bishop, J. G. Broadbent, A. G. D. West, W. J. Newson, A. G. Dryland.

The ground is in Kangley Bridge Road, opposite Lower Sydenham Station, a convenient train from Cannon Street leaves at 1.40 p.m.

Wanted: A Sport's Ground.

The Sports Club of the Headquarters and London Station Staffs of the B.B.C. is experiencing much difficulty in securing a suitable Sports Ground, particularly with regard to Tennis Courts. Four to six courts are required, if possible, within a radius of three miles from Charing Cross, to be available for use every evening and week-ends. Information regarding possible grounds will be greatly welcomed by the B.B.C., 2, Savoy Hill, London, W.C.2.

A Distinguished Dutch Composer.

There will be a recital of Chamber Music broadcast from the Edinburgh Station on Friday, February 6th. Among the works to be played will be a pianoforte trio by Alex Voormolen, the distinguished Dutch composer. Mr. Voormolen, whose compositions are much influenced by the modern French School, was a pupil of Ravel. This is the first performance of the work in Scotland.

Wireless For The Blind.

Radio's Service to the Sightless. By Captain Ian Fraser, C.B.E., M.P.

[Captain Ian Fraser is well known in connection with his work for St. Dunstan's, and in the following article he describes the great benefits of wireless to those who have been unfortunate enough to lose their sight.]

NO inventor has unconsciously done more for blind people than Senatore Marconi. Indeed, with but one qualification, no inventor has done so much. The qualification is Louis Braille, who, so far as those blind from infancy are concerned, must come first, for by the system of reading which he invented, he made it possible for good education to be enjoyed by children deprived of the use of ordinary books. As a hobby, as a recreation, and, indeed, as a means of education, wireless, in my opinion, beats even Braille, for the adult, and more especially for the adult whose sight was taken away from him after his school life had come to an end.

An Unnatural Way of Reading.

With few exceptions, those upon whom blindness has descended in adult life do not become really proficient at Braille reading. It is not the natural way of reading to them, and they are not so easily taught a new and, to them, strange method, as are young children. Most of the two thousand soldiers who were blinded in the War read Braille, but few well enough really to enjoy a book after a hard day's work. I do not mean to minimise the importance of Braille. It is essential, as essential as type is, and to many who read it naturally, it is, doubtless, a great boon. Rather do I point out its limitations to emphasise what the development of broadcasting has meant to those blind people who have the means to enjoy it.

There are two directions which really matter in which a blind man feels the limitations of his handicap. One is in the matter of getting about alone, the other is in his inability to fill in odd moments in an interesting way. Until you are blind, which I hope you will never be, you will not realise how many periods there are, even in the busiest life, when you have to, or do, in fact, fill up time for a few minutes, or half an hour or so. How often of an evening, for example, do you spend a few minutes while, say, waiting for your wife or friends to come in, or go out with you, or play bridge, by glancing at a paper?

Before Radio Came.

Before wireless brought in broadcasting there were, it is true, ways in which blind people would fill in these times, and many did so in a remarkable way. A Braille magazine could be picked up, a gramophone could be played, a few could sit down at the piano. The majority, however, sat still and waited, and smoked, perhaps, and were bored almost certainly. Now, all that is unnecessary. All the evening there is something doing on the wireless. I wonder how many readers of *The Radio Times* find that wireless is their main hobby, although they, with their sight, can draw upon a hundred other pastimes? A majority, I should think. How much more, then, must wireless be to those whose avenues for the profitable employment of time are so limited?

Making the Magic.

But broadcasting has done more for the blind even than this. To you who can see it is natural to do things for yourself, alone, without the necessary intervention of another person. To the blind man this is invariably difficult and sometimes impossible. The wise blind man will do all that he possibly can for himself; but he will generally find that for his amusements he requires, and must wait upon, the company of another. He could go to a play alone; but he would miss the information on the programme

as to the characters, scenes, etc. He could, and often does, go for a walk alone; but this must be regarded more as a sometimes necessary and always tiring method of getting from one place to another, and not as a pleasure. To listen is the one thing which in the very nature of things he can best do, and to tune-in presents no difficulties. I know scores of blinded soldiers, and some others, too, of an older generation, who not only tune-in themselves, but look after their apparatus, charge accumulators off the main, and, in fact, manage the whole thing themselves.

Psychologically, it is a great thing in a household where ordinarily the blind man is less capable of doing ordinary things than are the others, to have one line in which all are interested, in which he is pre-eminently the one who knows, and can make the magic.

Listening in the Theatre.

Now one word about wireless plays which those of us who cannot see can, probably, write about with special authority. Six years ago I was blinded in action in France. I went to plays when I left hospital, and enjoyed them. I still do. Very little explanation of the programme and scenery enables me to follow without difficulty. People always on the lookout for something which, being unusual, they could regard as wonderful, were surprised. They are not so surprised now, for thousands are learning that they can listen to, follow and enjoy a play without seeing anything.

The B.B.C. has one difficulty additional to that which I experienced at the theatre—namely, that all the voices they present to the listener come from the same place, relatively to his ears. It may be a loud speaker, or a headphone, but the voice is always in the same relative position with regard to the listener's ear, whereas, at the play, the stage is wide and deep, and it is possible to receive great assistance in following movement to utilise this direction-finding property of the human ears. I wish the B.B.C. all luck with their plays. If they apply imagination to the subject, and experiment enough, they will have great success, and will add enormously to the enjoyment of their listeners.

IN A GOOD CAUSE.

A CONCERT in aid of the Lord Mayor of Birmingham's Distress Fund will be given at the Town Hall, Birmingham, on Saturday, February 7th. The Birmingham Station is giving the whole of the programme for the special benefit of the Fund. The following artists will appear: Mdme. Emily Broughton, Mdme. Alice Vaughan, Mr. Geoffrey Damms, Mr. Percy Edgar (Station Director), Mr. James Howell, Mr. Nigel Dallaway, and Miss Marjorie Heyward. The Station Symphony Orchestra, conducted by Mr. Joseph Lewis, will take part in the programme, the whole of which will be relayed and broadcast from the Birmingham Station.

FRIDAY, February 6th, will be devoted at the Dundee Station to "The Drama." Mr. William Macready and Miss Edna Godfrey-Turner are giving three items, *David Garrick*, followed by a short interlude, *Married Life*.

GLASGOW Station will broadcast another "Clan" programme on Friday, February 13th. The Clan MacRae will be represented on this occasion. The programme centres round a short talk by Lt.-Col. MacRae-Gilstrap on the origin of the clan, and typical music will be provided by the Clan MacRae Society Pipe Band, interpolated with songs by Miss Phemie Marquis and Mr. Kenneth MacRae.

A Great Adventure.

The Voyage of the "Santa Maria."

On Tuesday, February 3rd, "Christopher Columbus," a play by Richard Hughes, dealing with an episode in the famous voyage of the "Santa Maria," will be broadcast from the High-Power Station. The following article describes the difficulties of Columbus's great adventure.

NEVER, probably, was an enterprise launched with such difficulty as that which began on August 3rd, 1492, when Christopher Columbus set out to discover Eastern-most Asia by sailing Westward. When exactly the idea of the voyage came to the Genoese sea-captain we do not know; but we do know that it was not a sudden flight of fancy; it was the solid outcome of work and dreams at sea, of porings over old family papers of his wife's, and of cool discussions with scientific geographers.

A Youthful Traveller.

When his idea became precise, he was still quite a young man, but he had voyaged from his boyhood, not only in the Mediterranean and in that part of the Ocean between the Azores and Africa where steady weather conditions prevail, but in the wild and fickle northern seas, possibly even to Iceland. The theory that he formed rested on "incorrect," but well-grounded notions which, marshalled, made up one of those "working hypotheses" by which our Western science has always advanced from one grand discovery to the next.

It was one thing to develop the theory with all its backing of speculation, calculation, and evidences, and it was quite another to get official or financial support, even in this period of the great discoveries. By 1480 the scheme was mature; a two years' voyage delayed its presentation to the King of Portugal till 1482; two years later, again, with his scheme rejected, Columbus had to flee. It was almost chance that led to his making the next offer to the Sovereigns of Spain, and it was at an unpropitious moment, for the Granada War was in full swing, and Ferdinand and Isabella were too pre-occupied to take up distant schemes.

His Royal Reward.

It was not until Granada was disposed of (in January, 1492) that negotiations with Ferdinand and Isabella came to a head, and not until mid-April that the Sovereigns conceded the reward that he asked for his enterprise—vicerealty of what he should discover and admiralship over the new seas.

The scheme in definite form, and supported by exhaustive reasoning, had been before the courts of Portugal and Spain for ten years, and, after all (according to Robertson), "the sum employed on fitting out the squadron did not exceed £4,000." The "squadron" consisted of the little *Santa Maria*, of 100 tons, and two still smaller vessels, *Pinta* and *Niña*, commanded respectively by Columbus as Admiral and the brothers Pinzon (Martin Alonso and Vicente Yanez), merchant captains of Palos. With them were eighty-five men, some adventurers, some steady men, but a large proportion of ne'er-do-weels.

Two Months of Drama.

It was on August 3rd that they set sail from Palos, and on October 12th that they made the historic landing at what is now called Watling Island in the Bahamas—two months of drama crowning ten years of work.

The main dimensions of the three historic vessels may be of interest.

| | <i>S. Maria.</i> | <i>Niña.</i> | <i>Pinta.</i> |
|-------------------------------|------------------|--------------|---------------|
| Length between perpendiculars | 75ft. 5in. | 65ft. 9in. | 57ft. |
| Maximum beam | 22ft. | 23ft. 10in. | 18ft. 5in. |
| Mean draught on service | 9ft. 6in. | 9ft. 4in. | (?) |

But it is not so much the smallness of the ships that strikes us nowadays—it is the greatness of the Man.

Listeners' Letters.

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

Broadcasting Helps Theatre-Going.

DEAR SIR.—In view of the present situation with regard to the broadcasting of plays, or parts of plays, from theatres, and the attitude of the provincial managers towards such broadcasting, I should like to mention that, when in London recently I met a friend from Newcastle, who was in town ostensibly on business, but who seemed to regard a visit to *Patricia* as of equal, if not greater importance, he having heard and enjoyed that play when it was recently broadcast.

Personally, I had not heard the wireless programme that particular evening, and I tried to induce my friend to accompany me to another "show," but in vain. He was determined to see *Patricia*.

Yours, etc.,
Cardiff. N. B.

[We have received a number of letters similar to the above.]

Don't Blame the B.B.C.!

DEAR SIR.—There has been a great amount of controversy in regard to the effect of wireless on the state of the weather, and many declare openly that the very wet weather that has prevailed lately is actually the outcome of the general use of wireless. I feel prompted to write and ask you your candid opinion on this matter, as I think a great many more people would go in for a set if they did not believe that by so doing they would add to the discomfort of the public generally by encouraging broadcasting. I therefore suggest that you publicly declare the fallacy of such an idea.

Yours, etc.,
Swansea. G. O. E.

[This matter is settled definitely by considering how much energy is required to move a depression in the atmosphere even such a short distance as, say, fifty or one hundred miles.

To cause such a movement would take more thousands of times the amount of energy needed to propagate electric waves continuously from all the stations, high-powered, low-powered, broadcasting and amateur in this country.

As regards the possibility of any trigger action, that is to say, wireless waves upsetting an atmosphere tending to be unstable, this is quite impossible, as the atmosphere itself must remain in a more or less stable condition. It is an excellent suggestion that publicity should be given to this, as many people are inclined to blame broadcasting for all our weather troubles.]

"Pulling the Cat's Leg."

DEAR SIR.—Mr. Ronald Gourley recently gave a whistling number, "Birdie Hops." During that item my cat woke up and, climbing on to a chair and putting his feet on the table, poked his head as far as possible down the loud-speaker. At the conclusion he whined so much that he had to be let out of doors. What an unsolicited compliment from an animal to an artist's imitation. I regret that I couldn't get a photo.

Yours, etc.,
Norwich. I. C. W.

"There Shall Be No More Sea."

DEAR SIR.—The article by Mr. Walter Wood in your issue of January 2nd is headed "There Shall Be No More Sea." A beautiful poem on this subject appeared many years ago, and if it happens to be in the possession of any of your readers, I would feel obliged if I could have a copy. It is one of the loveliest poems I have ever read.

Yours, etc.,
Enniskillen, Ulster. W. C. T.

(Continued overleaf in column 3.)

London's Wireless Orchestra.

By Rex F. Palmer. London Station Director.

"PLAYED by the London Wireless Orchestra" is, perhaps, the most frequent and familiar announcement to listeners everywhere. In this respect it comes second only to the Weather Forecast, and helps to dispel the "deep depressions" we so often hear about in the latter.

If those who are familiar with London orchestral music were to visit the studio when the orchestra is playing, they would recognize many old friends, for it should go without saying that the individual members of our orchestra are the best that can be procured in their own line.

It is not surprising that only the best men are good enough for the London Wireless Orchestra. Looking through any week's programmes, you will observe that the orchestra is called upon to play anything from a symphony to the latest fox-trot, and to accompany operatic arias or music-hall ditties, and these very often at sight. We certainly have rehearsals, and particularly for all big programmes, when the orchestra is augmented; but it is obviously impracticable to rehearse more than a small proportion of the musical programmes. Those who appreciate our symphony concerts must, therefore, bear in mind that the standard of performance has to be equally good when carrying out the less highly musical, but equally popular, part of our programmes.

A Large and Varied Programme.

This means first class musicianship in every department of the orchestra, and the necessity for able musicians with all-round ability was foreseen at the outset. From a trio to an octet the orchestra has developed through various stages to its present size and constitution. Our permanent orchestra of twenty-two players is adequate for most of our work, and forms a useful nucleus on which to build as occasion requires. With such a large and varied repertoire, we could certainly do with no less, and even now it is frequently necessary to add to this number to give adequate performances of the works included in our programmes.

Our principal players have been heard individually on "orchestral solo nights," and at other times.

Of our genial and versatile conductor, Mr. Dan Godfrey, Jun., I need only say that he has proved himself equal to all demands made upon him.

Mr. S. Kneale Kelley (Leader and Sub-Conductor), is one of the best-known orchestral players in London, and has done a great deal

of work for the B.B.C. since his appointment nearly two years ago. He is a member of the London Symphony and Royal Philharmonic Orchestras, and has played and conducted for the King and Queen on numerous occasions.

Of the remaining violinists Messrs. Rutledge, Tas, Sammons, Brunet and Wyatt, are also members of one or more of the big London orchestras, in addition to their other musical activities. Messrs. Quaife and Blakemore (Violas), and Messrs. Robinson and Nifosi (Cellos), are also well known in their respective spheres.

A Brilliant Young Player.

Mr. Almgill (Flute) has been associated with operatic work in London for the last twenty years. Mr. Field (Oboe and Cor-Anglais) has toured with Sir Thomas Beecham in the London Symphony Orchestra.

Mr. Thurston (Principal Clarinet) is a brilliant young player of this instrument, for whom there should be a great future in store. Mr. Charles Draper (Second Clarinet), is known to musicians as one of the finest solo players of his time.

Mr. Hinchcliff (Bassoon) is an old scholar and Associate of the Royal College of Music, and an original member of the London Symphony Orchestra. Mr. Dickie (Contra Bassoon) is one of the few exponents of this unique and difficult instrument, which we find more suitable for its purpose than the usual string double bass.

Mr. Probyn (Principal Horn) is also an Associate of the Royal College of Music, where he is now a Professor, and Mr. Hamilton (Second Horn), is an experienced and capable player.

Mr. Leggett (Trumpet) is widely known as one of the finest cornet and trumpet players that we have. Who has not heard some of the powerful solos by "Sergeant Leggett" on the gramophone? He is also a Professor of the Royal Military School of Music, Kneller Hall.

Mr. Taylor (Trombone) holds a similar appointment at Kneller Hall, and was for many years a member of the Scottish Orchestra.

Mr. Rushforth (Percussion) is one of the well-known players in this department and has had many years' experience of gramophone work. He is a Professor at the Guildhall School of Music.

Mr. Hook (Piano), who also plays the celesta parts which transmit so well, is orchestral librarian. He handles so many hundreds of musical parts in a week that he is said even to think in music.



The London Wireless Orchestra.

Pieces in the Programmes.

A Weekly Feature Conducted by Percy A. Scholes.

ELGAR'S "THE DREAM OF GERONTIUS."
(CHELMSFORD, THURSDAY.)

IN 1865 Cardinal Newman wrote this poem, inspired by his thoughts as he sat by the death-bed of a friend. It pictures the dream of a dying man, as he anticipates what lies beyond. Elgar, himself of the same faith as Newman, long afterwards set this poem to music, and his setting had its first performance in 1900, at the Birmingham Festival.

The best preparation for a first hearing of *Gerontius* is a reading of the poem itself. This is published by Messrs. Longmans, Green and Co. (39, Paternoster Row, E.C.4), in various editions, the cheapest costing one shilling.

In the First Part of the work we hear GERONTIUS (*Tenor*), THE PRIEST (*Bass*), and ASSISTANTS (*Chorus*).

The music opens with a very beautiful Prelude, and then follows these solo and chorus passages:—

GERONTIUS: *Jesu, Maria—I am near to death.*

ASSISTANTS: *Kyrie Eleison.*

GERONTIUS: *Rouse thee, my fainting soul.*

ASSISTANTS: *Be merciful, be gracious; spare him, Lord.*

GERONTIUS: *Sanctus fortis, Sanctus Deus.*

GERONTIUS: *I can no more.*

ASSISTANTS: *Rescue him, O Lord, in this his evil hour.*

GERONTIUS: *Novissima hora est.*

THE PRIEST: *Proficiscere, anima Christiana.*

ASSISTANTS: *Go, in the name of Angels and Archangels.*

In the Second Part we hear THE SOUL OF GERONTIUS (*Tenor*), GUARDIAN ANGEL (*Mezzo-Soprano*), THE ANGEL OF THE AGONY (*Bass*), and DEMONS, ANGELICALS, and SOULS (*Chorus*). It opens with a brief Introduction, and then follow:—

SOUL OF GERONTIUS: *I went to sleep; and now I am refreshed.*

ANGEL: *My work is done, My task is o'er.*

Dialogue, ANGEL AND SOUL: *All hail, my child and brother, hail!*

DEMONS: *Lowborn clods of brute earth.*

ANGEL: *It is the restless panting of their being.*

DEMONS: *The mind bold and independent.*

Dialogue, SOUL AND ANGEL: *I see not those false spirits.*

ANGELICALS: *Praise to the Holiest in the height.*

SOUL: *The sound is like the rushing of the wind.*

ANGELICALS: *Glory to Him.*

ANGEL: *They sing of thy approaching agony.*

SOUL: *But hark! a grand mysterious harmony!*

ANGEL: *And now the threshold, as we traverse it.*

ANGELICALS: *Praise to the Holiest in the height.*

Dialogue, ANGEL AND SOUL: *Thy judgment now is near.*

ANGEL OF THE AGONY: *Jesu! by that shuddering dread which fell on Thee.*

VOICES ON EARTH: *Be merciful, be gracious, spare him, Lord.*

ANGEL: *Praise to His Name.*

SOUL: *Take me away.*

SOULS IN PURGATORY: *Lord, Thou hast been our refuge.*

ANGEL: *Softly and gently, dearly ransomed soul.*

SOULS: *Lord, Thou hast been our refuge.*

ANGELICALS: *Praise to the Holiest.*

It must not be understood that these Solos and Choruses are cut off from one another in the way usual in the older oratorios. Each

of the two parts in the work is continuous, and is bound into a whole by the use of *leading motifs*.

PURCELL'S "KING ARTHUR."

(ABERDEEN, FRIDAY.)

PURCELL'S *King Arthur*, though called "An Opera," is hardly such in the general present-day sense of the word. It is a play, with much incidental music.

The Libretto of *King Arthur* is by Dryden. The main theme is the struggle between the British under King Arthur, and the Saxon invaders, headed by King Oswald.

ACT I.

In the Saxon camp, voluntary human sacrifices are being offered to the Saxon gods. THREE PRIESTS (*Bass, Tenor, Alto*) are supported by a CHORUS.

A Battle follows (behind the scenes) a "Military Symphony" being played meanwhile, after which Britons, being victorious, sing a SONG OF TRIUMPH (*Tenor and Chorus*).

ACT II.

SCENE I.—The Saxon magician Osmond plots to lead the Britons into pitfalls. After a brief INTRODUCTION, and an AIR, played while Merlin (British enchanter) "descends in a chariot drawn by dragons," there follows a long scene in which PHILIDEL, an Airy Spirit (*Soprano*), who has revolted from Osmond to Merlin, leads the Britons to safety, despite the efforts of GRIMBALD (*Bass*), an Earthy Spirit.

SCENE II.—Emmeline, the betrothed of King Arthur, is carried off by King Oswald, while entranced by the songs of Shepherds (*Tenor, Two Sopranos and Chorus*).

ACT III.

Osmond, in his turn, makes love to Emmeline. He shuts King Oswald in a dungeon, and tries to demonstrate to Emmeline the power of love, by an allegory—

CUPID (*Soprano*) summons a COLD GENIUS (*Bass*), who in turn summons his attendant spirits (CHORUS). Even the Spirits of Frost melt at Cupid's call! (The Cold Genius and the Chorus are both called upon to "shiver" with their voices when they first appear—a case of the rare legitimate use of excessive Vibrato!)

ACT IV.

King Arthur is cutting down Osmond's enchanted grove. All sorts of people try to hinder him. TWO SHEENS (*Sopranos*) sing; then there are a Soprano Solo, a Soprano and Bass Duet, a Trio for Nymphs (1st and 2nd *Sopranos and Altos*), and another for Sylvans (*Altos, Tenors and Basses*), all interspersed with Dances and Choruses.

ACT V.

King Arthur defeats King Oswald in single combat. Emmeline is rescued, and Osmond imprisoned. Merlin then foreshows Britain's greatness in a sort of Grand Finale.

First, AEOLUS (*Bass*), in a fine Solo, disperses the Winds. ("Symphony—the Winds fly off"; "Symphony—Britannia rises.")

Second, NEREID (*Soprano*) and PAN (*Bass*) sing a Duet, answered by CHORUS OF FISHERMEN (some of whom have *Soprano and Alto* voices.)

After a "Song of Three Parts" (*Alto, Tenor and Bass*), VENUS (*Soprano*) sings the well-known and beautiful song, *Fairest Isle*.

Then comes a long Dialogue between a NYMPH (*Soprano*) and a SHEPHERD (*Bass*).

A TRUMPET TUNE leads to a Song of St. George, sung by HOKOUR (*Soprano*).

After an answering, massive CHORUS, a GRAND DANCE concludes.

Listeners' Letters.

(Continued from the previous page.)

Wireless and "Nerves."

DEAR SIR,—In Mr. Walter Wood's article in your paper entitled "There Shall Be No More Sea" he states that: "Wireless broadcasting has brought entertainment and enjoyment to many thousands, but, perhaps, to none is it a greater blessing than to the men who 'go down to the sea in ships.'" I note the word "perhaps" or should have ventured to have contradicted the statement, for I feel sure there is another section of the community which has benefited by radio more than any body of men in the world, viz.: the "nervous breakdowns," of which body I unfortunately belong. I am glad to say, however, that after having fourteen months of this terrible affliction, I am nearly well again.

Since the installation of my wireless, the whole of my evenings with very few exceptions have been spent in listening and this, I am absolutely certain, has done more for my recovery than anything else.

In my opinion, wireless is a greater blessing to the "nervous breakdowns" than to any other living souls and I only wish I could convey to all such unfortunate sufferers an idea of the benefit I have derived from it.

Yours, etc.,

H. S.

A Plea for High-brow Music.

DEAR SIR,—May I suggest that you might, as an experiment, have an occasional "high-brow" evening—described as such—at which really outstanding works should be given, i.e., works of the calibre of the Op. 130 Quartet of Beethoven and repeated the same evening after an interval for something of a lighter nature. To one like myself, as yet only in the neophyte stage as regards music, it would give a unique opportunity of really coming to grips with works which cannot be appreciated to the full at a first hearing.

During the last few years I have drifted into a pretty keen love of music. I started with an absolutely blank ignorance on the subject and have hammered things out for myself, chiefly with the aid of a pianola.

Yours, etc.,

Ealing.

P. S.

He Had Had Some!

DEAR SIR,—I was travelling on a Liverpool tram the other day, and exactly opposite to me sat a man and his wife. As the tram drew up at a stopping place, the couple apparently recognised a woman who was boarding the car, for the man turned to his wife, and with a bored expression on his face said: "In one minute you will receive the Local News."

The remark only became humorous to me when the woman who had just entered sat next to the couple, and began to gossip audibly.

Yours, etc.,

Liverpool.

P. C.

A SELDOM-HEARD MUSICAL INSTRUMENT.

TWO solos on the Viole d'Amour were given from the Leeds-Bradford Station by Mr. Percy Frostick on January 12th in the course of a programme by the Station Trio, of which he is a member. This is probably the first occasion on which music played on this instrument has been broadcast. The Viole d'Amour is an instrument which dates back to the early eighteenth century, and is rarely seen or heard nowadays. It is contemporary with the harpsichord and spinet, and therefore carries the mind back to the time of Gay, *The Beggar's Opera*, the minuet, and the gavotte. It was the forerunner of the violin, and is in fact very similar.

To Save St. Paul's!

A Plea for the Threatened Dome.

A PENNY ahead from the whole population would keep St. Paul's safe as the pride of the nation.

A shilling from all the more prosperous homes would firmly support the most noble of domes. A pound from each person with so much to spare

Would hold up for ever Wren's cross in the air. A five, or tenner, or larger donations represent quite a number of minor oblations. But everyone's help, great or small, is requested. "Give quickly, give twice," is the motto suggested.

The above lines, penned by one who is helping to save St. Paul's from destruction, express the urgent needs of Britain's most famous cathedral.

The sum urgently required for immediate repairs is £200,000, and it is gratifying that the broadcast appeals for subscriptions have materially assisted the *Times* fund.

It is not generally realized that the St. Paul's which we see to-day is the third cathedral which has been built upon the present site. The first cathedral, of which we have authentic record, says the Rev. Lewis Gilbertson, M.A., in his "St. Paul's Cathedral," was erected by Ethelbert, King of Kent, with the sanction of Sebert, King of the East Angles, whose territory London then was. This took place early in the seventh century, about the year 607 A.D.

Consumed by the Great Fire.

In the building of the second cathedral—now known as Old St. Paul's—a very great advance in magnificence was made. The Norman Conquerors had introduced into this country a knowledge of architecture along with other arts, and the cathedral was designed to stand within spacious precincts enclosed by walls.

Old St. Paul's fell into a ruinous condition and a lot of patching had to be done in order to keep it safe. Inigo Jones did much restoring during the time of Charles I., when the cathedral was re-faced both inside and out.

It was not until the time of Charles II. that progress could be resumed. Then Christopher Wren was appointed Assistant Surveyor-General to the Merry Monarch, and was entrusted with the work of repairing the cathedral. He developed a thorough scheme of restoration which the Great Fire of London prevented from being carried out, for among the buildings consumed by the flames was Old St. Paul's.

The Laying of the First Stone.

Soon after the fire, Wren produced his plan not for restoring the cathedral, but for rebuilding it, and the first stone of the present cathedral was laid by Christopher Wren himself on June 21st, 1675. It was on December 2nd, 1697, some twenty-two years after the laying of the first stone, that the choir of St. Paul's was open for Divine Service, and from that time forward the services have gone on without interruption.

From that time the majesty of Wren's greatest work, with its magnificent dome, has thrilled the hearts of millions of his countrymen. It is unthinkable that the St. Paul's he created can be allowed to remain a dangerous building, and it must be saved by those who care anything for the glory of one of the greatest glories of Christendom. H. P.

In connection with the recent celebration of the bi-centenary of Sir Christopher Wren, the Royal Institute of British Architects, 9, Conduit Street, W.1, have published a memorial volume on Wren and his work (including St. Paul's Cathedral) written by contributors who are intimately acquainted with the subjects with which they deal. The profits of the sale are to be devoted to the St. Paul's Preservation Fund.

PEOPLE IN THE PROGRAMMES.

London's Latest Manager.



Mr. HARRY WELCHMAN.

For Mr. Welchman is not only London's latest manager. He is London's most go-ahead manager.

He has arranged for the broadcasting of *Love's Prisoner* at the Adelphi on its very first night—February 3rd.

A real pioneer, like so many Devonshire men. For Harry is not a Welshman. He was born in Barnstaple.

Apart from his work on the ordinary stage, Mr. Welchman has done a lot of acting for the films, and he believes that cinema acting is excellent training for the young actor.

A Charming Young Actress.



Miss HELEN GILLILAND.

THE leading lady in *Love's Prisoner* is Miss Helen Gilliland, who is one of the most charming and promising of our younger actresses. Originally with the Gilbert and Sullivan operas, Miss Gilliland has also appeared successfully in *Stop Flirting*, *Katinka*, and *A Cousin from Nowhere*.

When not engaged at the theatre, she likes nothing better than a game of golf, and, in fact, to use her own words, she is "fond of all sports."

Art Under Difficulties.

THERE should be a special welcome for Mr. Edward Isaacs, one of our finest pianists, to whom we have often had occasion to refer in these columns before.

Mr. Isaacs has been absent from public work for a year, owing to a serious affection of the eyes.

Although his vision is still, unfortunately, very dim and weak, he is being allowed by the specialists to appear on the public platform for a strictly limited number of performances.

You should therefore make the most of your chance of hearing him interpret Beethoven on February 6th.

Her Royle Highness.



Miss NANCY ROYLE.

THE heading to this paragraph is not a printer's error. It refers to Miss Nancy Royle, the young mezzo-soprano who is to take part in the operetta, *Katouna*, or *An Arabian Morn*, when it is broadcast from London on February 2nd.

She is, by the way, the only daughter of the celebrated artist, the late William Strang, R.A., and studied under Madame Liza Lehmann at the Guildhall School of Music.

An All-Rounder.

THE libretto of *Katouna* has been written by Mr. Kingsley Lark, who will aurally be very much in evidence in a few days, for he is taking part in the Dickens Anniversary Programme at Cardiff on February 7th.

Born in Sydney, where the cricketers come from. Educated in England. Stockbroker. Musical comedy. Grand opera. Beerbohm Tree's company. Music hall. Pantos. Poet. Author. Translator. Oarsman. Cricketer. Footballer. Golfer. That's Kingsley Lark.



Mr. KINGSLEY LARK.

Wood Instruments.



Mr. ARTHUR WOOD.

THE composer of the operette *Katouna* is Mr. Arthur Wood, who cooms fra' Yorkshire and has used many of the local tunes of his native county in his compositions.

Well known as the musical director of Daly's Theatre, he has conducted musical comedy for over twenty years in London—including *My Lady Molly*, *Veronique*, *The Arcadians*, *The Gipsy Princess*, *The Lady of the Rose*, and *Madame Pompadour*.

People often talk of the monotony of acting the same part for a year on end, but this is nothing compared with conducting the same music for the same period.

Yet Mr. Wood's zeal never flags. Even on the 500th night, the "Wood" instrumentalists are kept as strictly up to scratch as on the first.

A Famous British Conductor.

DR. ADRIAN C. BOULT, Conductor of the Birmingham City Orchestra, who will be speaking to school children on Musical Appreciation from the Birmingham Studio on February 3rd, is one of the most famous of British conductors.

He has done fine work, particularly for the younger English school of composers, and has behind him a long record of musical achievements. After leaving Christ Church, Oxford, where he studied music under Sir Hugh Allen, he spent some time in Germany, where he studied the methods of Nikisch.

He has conducted the London Symphony, Queen's Hall, and Albert Hall Orchestras, and during 1919 conducted a season of Russian Ballet at the Empire Theatre.

Through his work in concerts abroad, he is as well known in Vienna, Munich, and Barcelona, as he is to his admirers here.

Authorities.

LORD HAMPTON, giving a talk on February 5th. Lieut. Rifle Brigade, Major Worcestershire Yeomanry, and was born to command.

The Rt. Hon. Francis Dyke Acland, P.C., M.P., talking on February 6th. Ex-Cabinet Minister and expert on education, finance, foreign affairs, agriculture, forestry, and even fishing. "OYEZ."

EXPERIMENTS in the reception of radio signals underground, for use in mine rescue work, have been successfully carried out at Pittsburg, U.S.A. A Government station in a cellar was used, and several British stations were received at loud-speaker strength.

WIRELESS PROGRAMME—SUNDAY (Feb. 1st.)

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

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 (Continued).
 10.30.—"The Silent Fellowship."
 10.45.—Close down.

2ZY MANCHESTER. 375 M.

3.0-5.0. Chamber Music and Songs.
 THE ETHEL MIDGLEY TRIO:
 ETHEL MIDGLEY (Piano);
 JOHN BRIDGE (Violin);
 WALTER HATTON (Violoncello);
 WILFRED HINDLE (Tenor).
 Trio.
 Trio in C Minor *Brahms*
 Allegro con energico; Presto non assai;
 Andante grazioso; Allegro molto.
 Wilfred Hindle.
 "Thanks to My Brethren"
 "How Vain is Man" } *Handel*
 "Sound An Alarm" }
 Trio.
 Trio in E Major *Mozart*
 Wilfred Hindle.
 "Adelaide" *Beethoven*
 "Deeper and Deeper Still" } *Handel*
 "Waft Her, Angels" }
 Trio.
 Trio in A Minor *Tchaikovsky*
 Pezzo Elegiaco; Moderato Assai; Tema
 con Variazioni; Andante con moto.
 5.0-5.30.—CHILDREN'S CORNER. *S.B. from*
Birmingham.
 8.0.—S. G. HONEY: Talk to Young People.
 8.25.—Hymn, "Jesu, Lover of My Soul" (Eng-
 lish Hymnal No. 414).
 Religious Address by the Rev. CANON
 SINKER, Vicar of Blackburn.
 Hymn, "He Who Would Valiant Be"
 (English Hymnal No. 402).
 Hymn, "Evensong is Hushed in Silence"
 (English Hymnal No. 569).
 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
 (Continued).
 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*
Birmingham.
 7.30-9.30. Philharmonic Concert.
 Relayed from the Palace Theatre.
 Concerto Grosso in B Minor (Op. 6, No. 12)
Handel
 (Solo Violins,
 ALFRED M. WALL and JAMES MARK.)
 (Solo Cello, WILFRED ELLIS.)
 "Prague" Symphony, No. 38, in D Major
Mozart
 Symphonic Poem, "Heroide Funèbre"
Liszt
 Andante Spianato and Grande Polonaise
 Brillante for Pianoforte and Orchestra
 (Op. 22) *Chopin*
 VINCENT CAYGILL.
 Three Orchestral Pieces *Edgar L. Bainton*
 "The Beautiful Blue Danube" Waltzes
Strauss
 9.30. DUDLEY MALE VOICE QUARTET.
 Hymn, "God of Our Fathers, Known of
 Old" (*Blanchard*) (No. 269, Primitive
 Methodist Supplement).
 The Rev. H. RIDEHALGH-JONES, M.A.,
 Westmorland Road Presbyterian Church
 of England: Religious Address.
 Hymn, "Hark! Hark, My Soul" (*Smart*)
 (No. 1032, Primitive Methodist Hymnal).
 10.0.—WEATHER FORECAST and NEWS.
S.B. from London. Local News.

10.15. Quartet.
 "O Peaceful Night" *German* (11)
 "Feasting—I Watch" *Elgar* (11)
 "Holy Father, Cheer Our Way" ... *Jude*
 10.25.—Close down.

2BD ABERDEEN. 495 M.

Bach Afternoon.
 3.0. HAROLD SAMUEL (Solo Pianoforte).
 Fantasia in C Minor.
 Choral Prelude, "Sleepers, Wake!" ... (2)
 Prelude and Fugue in G, D Minor, and A
 Flat.
 3.30. M. WRIGHT, G. HARKINS and
 MARIE SUTHERLAND.
 Sonata in G Major for Flute, Violin and
 Piano.
 G. Harkins and Marie Sutherland.
 Concerto in A Minor for Violin and Piano.
 M. Wright, G. Harkins and Marie
 Sutherland.
 Sonata in C Minor for Flute, Violin and
 Piano.
 M. Wright and Marie Sutherland.
 Sonata for Flute and Piano.
 4.30. Harold Samuel.
 Italian Concerto.
 5.0-5.30.—CHILDREN'S CORNER. *S.B. from*
Birmingham.
 8.0. High U.F. Church Choir.
 Selected Hymns.
 The Rev. JOHN BAIN, F.S.A. (Scot.)
 High U.F. Church: Address.
 Choir, Hymns.
 9.0. THE WIRELESS SEPTET.
 Selected Hymns.
 9.15. Sacred Cantata,
 "The Rolling Seasons."
 (Singer).
 Rendered by
 CULTS PARISH CHURCH CHOIR:
 Conductor: FRANCIS G. GRAY.
 9.45. Selected Hymns.
 10.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Local News.
 10.15. Septet.
 Selected Hymns.
 10.20.—Close down.

5SC GLASGOW. 420 M.

3.0-5.0.—Programme *S.B. from London.*
 5.0-5.30.—CHILDREN'S CORNER. *S.B. from*
Birmingham.
 6.30-7.45. Service.
 Relayed from
 The Barony Parish Church.
 Recital by
 9.0-10.0. The Bach Choir.
 Instrumentalists:
 BESSIE SPENCE (Violin).
 ANNIE HAMILTON (Violin).
 S. G. ASKHAM (Piano).
 Conductor, J. MICHAEL DIACK.
 Chorale, "Hallelujah" (34)
 Chorale, "Beside the Flood of Baby-
 lon" (34)
 Two Movements from Sonata in C Major
 for Two Violins and Piano.
 Largo; Presto.
 Soprano Solo, "O Light of Life" (34)
 Chorale, "Wake! The Welcome Day Ap-
 peareth" (34)
 Chorale, "Jesus Lives!" (34)
 Violin Solo
 Soprano Aria, "My Heart Ever Faithful"
 (11)
 Chorale, "From All That Dwell Below the
 Skies" (34)
 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 255.

High-Power Station Programme.

5XX. 1600 M.

SUNDAY, February 1st.

3.0-5.0.—Programme *S.B. from London.*
 5.0-5.30.—CHILDREN'S CORNER. *S.B. from*
Birmingham.
 8.20-10.30.—Programme *S.B. from London.*
 MONDAY, February 2nd.
 5.30-6.15.—CHILDREN'S CORNER. *S.B.*
from London.
 7.0-10.30.—Programme *S.B. from London.*

TUESDAY, February 3rd.

5.30-6.15.—CHILDREN'S CORNER. *S.B.*
from London.
 7.0-7.30.—Programme *S.B. from London.*
 Plays and Chamber Music.
 THE VIRTUOSO QUARTET:
 (MARJORIE HAYWARD, EDWIN
 VIRGO, RAYMOND JEREMY, CED-
 RIC SHARPE.)
 TWO NEW RADIO PLAYS:
 Produced by R. E. JEFFREY.

7.30. The Quartet.
 Variations and Minuet from "The Emperor
 Quartet" *Haydn*
 7.45. "CHRISTOPHER COLUMBUS"
 (Richard Hughes).

An Episode in the Voyage of the Santa Maria
 The Quartet.

8.5. Quartet in D *Tchaikovsky*
 Moderato e semplice; Andante cantabile;
 Scherzo-Allegro non tanto e con fuoco;
 Allegro giusto.

8.35. "CHECKMATE"
 (P. L. Kim).

A Modern Cave-Man Comedy.

8.55. The Quartet.

"Molly on the Shore" *Grainger*

The First Night

of

The Musical Play,

"LOVE'S PRISONER."

Relayed from The Adelphi Theatre, London.

As far as it is possible to gauge the length

of a First Night, the times of the

numbers to be broadcast will be:—

9.0-9.10.—Opening of Act II.

9.40-9.50.—Finale of Act II.

10.0-10.40.—Act III.

The rest of the programme will be as

follows:—

9.25.—Sir OLIVER LODGE. *S.B. from London.*

9.50 (following Act II).—WEATHER FORE-
 CAST and NEWS.

10.40 (approx.).—THE SAVOY BANDS. *S.B.*
from London.

12.0.—Close down.

WEDNESDAY, February 4th.

5.30-6.15.—CHILDREN'S CORNER. *S.B.*
from London.

7.0-10.30.—Programme *S.B. from London.*

THURSDAY, February 5th.

5.30-6.15.—CHILDREN'S CORNER. *S.B.*
from London.

7.0-7.30.—Programme *S.B. from London.*

7.30-9.30.—"THE DREAM OF GERONTIUS"
 (Elgar).

Gerontius JOHN COATES

The Angel IVY PHILLIPS

The Priest JOSEPH FARRINGTON

THE HALL ORCHESTRA:

THE HALL CHORUS:

Conductor, HAMILTON HARTY.

Relayed from

The Free Trade Hall, Manchester.

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

Capt. P. P. ECKERSLEY. *S.B. from London.*

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

11.0.—Close down.

FRIDAY, February 6th.

5.30-6.15.—CHILDREN'S CORNER. *S.B.*
from London.

7.0-10.30.—Programme *S.B. from London.*

SATURDAY, February 7th.

5.30-6.15.—CHILDREN'S CORNER. *S.B.*
from London.

7.0-7.30.—Programme *S.B. from London.*

7.30-9.30.—"THE GOLDEN LEGEND"
 (Sullivan). *S.B. from Bournemouth.*

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

WIRELESS PROGRAMME—MONDAY (Feb. 2nd.)

The letters "S.B." printed in italics in these programmes signify a Simultaneous Broadcast from the stations 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 Cokaigue. Music performed during Afternoon Tea at the Trocadéro. "The Romance of Paper Making," by Arnot Robertson.

5.30-6.15.—CHILDREN'S CORNER: Music by Auntie Sophie. "Animals I Have Met—(1) The Beaver," by Capt. Mansfield.

6.40-6.55.—Mr. F. LE BRETON MARTIN, "Rustic Humour."

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

Talk by the Radio Association. *S.B. to all Stations.*

Prof. J. E. G. DE MONTMORENCY, "Criminal Law." *S.B. to all Stations.* Local News.

Comic Opera Programme.

NANCY ROYLE (Soprano).
SYBIL MADEN (Contralto).
WALTER HYDE (Tenor).
KINGSLEY LARK (Bass).
NELSON JACKSON (Entertainer).
HAMILTON HURST (Entertainer).
THE WIRELESS ORCHESTRA:

Conductors:

ARTHUR WOOD and DAN GODFREY, Junr.

7.35. The Orchestra.
Selection, "A Princess of Kensington" *German*

Nancy Royle.

Valse Song ("The Maid of the Mountains") *Fraser-Simson*

"I Love You Sometimes When I'm Far Away" ("Carminetta") *Lassailly and Dorewski*

The Orchestra.

Waltz, "The Chocolate Soldier" *Straus (6)*

Kingsley Lark.

"Freedom" ("The Greek Slave") *Sidney Jones*

"I Love a Maid" ("Young England") *Clubsam*

Nelson Jackson

Gets Busy at the Piano.

The Orchestra.

Selection, "The Little Michus" *Messenger*

Walter Hyde.

"So Fare Thee Well" ("Doris") *Cellier*

"There's a Little Maid I Know" ("My Lady Molly") *Jones (31)*

The Orchestra.

Four Dances, "The Rebel Maid" *Montague Phillips*

9.0. First Performance of

The Operetta,

"KATOUMA,"

or

"AN ARABIAN MORN."

The Libretto by Kingsley Lark.

The Music by Arthur Wood.

Scene: Courtyard of an Arabian Merchant's House.

Cast:

Katouma, an Arabian Girl NANCY ROYLE

Menissah, Her Attendant SYBIL MADEN

The Caliph (first disguised as a Minstrel), Her Lover WALTER HYDE

Ben-el-Aarid (a Merchant), Her Father KINGSLEY LARK

9.30.—TIME SIGNAL FROM GREENWICH.

WEATHER FORECAST and 2ND GENERAL NEWS BULLETIN. *S.B. to all Stations.*

Topical Talk. Local News.

The Orchestra.

10.0. Barcarolle, "The Tales of Hoffmann" *Offenbach*

Hamilton Hurst.
Pianologues.
The Orchestra.
Selection, "Florodora" *Leslie Stuart*
10.30.—Close down.

5IT BIRMINGHAM. 475 M.

3.30-4.30.—The Station Wind Quartet. Doris Gambell (Soprano).

5.0-5.30.—WOMEN'S CORNER: Sidney Rogers, F.R.H.S. Norah Tarrant (Contralto).

5.30-6.30.—CHILDREN'S CORNER.

6.30-6.45.—Teens' Corner: Norman E. L. Guest, B.A., History Talk, No. 5, "An English Village in the 12th Century."

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

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

Popular Programme.

THE PACK OF CARDS CONCERT PARTY:

Directed by J. HORACE POTTER.

At the Piano, F. R. JUKES.

LEONARD GOWINGS (Tenor).

ORD FOX (Humorous Reading).

7.35. Concert Party.

"Our Wireless Opening Chorus"

Potter and Jukes

"We've a Deal to Do To-Day" *arr. Potter*

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

The Joker tells "The Miner's Story" *Grey (13)*

"Love As It Was" (Love Duets by the Queen and the Ace of Spades) *Henty (13)*

The Ace of Clubs "Begs to be Excused,"

"The Adventure of a Little Mouse" *Gallally (16)*

The Ace of Spades sings "Just a Little One."

"The Pack of Cards at School" *Potter and Jukes*

The Queen sings of "Mayblossom" *Potter and Jukes*

"Three Italianos" *Potter and Jukes*

The Ace of Diamonds will play "Two Studies" *F. R. Jukes*

A Vocal Duet, "The Three Nuns" *Potter and Jukes*

"Yell Shocks" (Without Danger) (13) *Leonard Gowings.*

8.30. "So Fair a Flower" *H. Lehr*

"The Road That Leads to You" .. *Geehl*

"Down Vauxhall Way" *H. Oliver (8)*

"Maire, My Girl" *Aitken*

8.45. Concert Party.

"THE NIGHT WATCHMAN" *Frank Leo, arr. Potter.*

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

Topical Talk. Local News.

10.0. Ord Fox.

A Humorous Idea of "Sport" .. *Ord Fox*

Leonard Gowings.

"The Garden of Your Heart" .. *F. Dorel (1)*

"At Dawning" *Cadman (1)*

"Wonderful World of Romance" *Haydn Wood*

"Dolorosa" *M. Phillips*

10.30.—Close down.

6BM BOURNEMOUTH. 385 M.

3.45-5.0.—Talk to Women by R. Hart-Symnot, Bursar of St. John's College, Oxford. Bacon and Bricknell's Metrognomes Dance Orchestra. Edith Powell (Soprano).

5.0-6.0.—CHILDREN'S CORNER.

6.0-6.30.—Scholars' Half-Hour: "Puritan England," by F. W. Lawrence, A.C.P.

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

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

Other Nations (No. 6). Bournemouth Calling Italy. THE WIRELESS AUGMENTED ORCHESTRA.

Conductor.

Capt. W. A. FEATHERSTONE.
GERTRUDE JOHNSON (Soprano).
HARRY BRINDLE (Bass).
HERBERT THORPE (Tenor).

7.35. Orchestra.
"Marcis Reale" (Italian National Anthem).
Talk by the Italian Consul, Southampton.

7.40. Orchestra.
"Dance of the Hours" ("La Gioconda") *Ponchielli*

7.55. Gertrude Johnson.
"I Am Called Mimi" *Puccini*
"Ah! fors è lui" *Verdi*

8.5. Harry Brindle.
"O Isis and Osiris" ("The Magic Flute") *Mozart*
"Here Me, Ye Winds and Waves" ("Scipio") *Handel (1)*
"Garment Antique and Rusty" ("La Bolème") *Puccini*

8.15. Orchestra.
Ballet Music, "William Tell" *Rossini*

8.30. Herbert Thorpe.
"Finiculi, Finicula" *Denza*
"Torna a Surriento" *de Curtis*
"Merie! Ah! Marie" *arr. G. Thorpe*

8.40. Orchestra.
"Ballet Egyptien" *Luigini*

8.55. Operatic Scenes.
"THE DAUGHTER OF THE REGIMENT." *(Donizetti) (1).*

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

Topical Talk. Local News.

10.0. Orchestra.

Excerpts from "Aida" *Verdi*

10.10. Gertrude Johnson and Herbert Thorpe.

Duet, "Miserere" ("Il Trovatore") *Verdi*

10.15. Harry Brindle.

Prologue, "Pagliacci" *Leoncavallo*

10.20. Orchestra.

Selection of Italian Folk Songs... *arr. Langey*

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.

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

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

Radio Association Talk. *S.B. from London.*

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

Music, Song, and Story.

ANNE THURSFIELD (Contralto).

THE GLANHOWY CONCERT PARTY.

THE STATION ORCHESTRA.

Conductor, WARWICK BRAITHWAITE.

7.35. Orchestra.

Overture, "Romeo and Juliet" *Bellini*

"Serenade" *Jensen*

"An Angel's Dream" *Rubinstein*

Concert Party.

"Invictus" *Protheroe (2)*

"The Frog" *Newton (11)*

"Mopsa" *O. Lee Williams (11)*

Anne Thursfield.

Selected.

? ? ?

"THIRTY SECONDS."

An Incomplete Play

by Donald Davies.

At the most intense moment in this thrilling Drama the action stops.

CAN YOU FINISH IT ?

? ? ?

Orchestra.

Selection, "Aida" *Verdi-Tavan*

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 255.

WIRELESS PROGRAMME—MONDAY (Feb. 2nd.)

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

Concert Party.
 "The Wanderer" *Elgar* (11)
 "Y Delyn Aur" *D. Pughe-Evans*
 Anne Thursfield.
 Selected.
 Orchestra.
 "Petite Suite d'Orchestre" *Bizet*
 Military March *Schubert*
 9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Topical Talk. Local News.
 10.0.—Dance Music.
 10.30.—Close down.

2ZY MANCHESTER. 375 M.

3.0-3.30. } Music relayed from the Oxford
 4.0-4.30. } Picture Theatre. (Conductor, S.
 Spurgin.)
 3.30-4.0.—Broadcast for Secondary Schools
 (Seniors): "Travel."
 4.30-5.0.—WOMEN'S HALF-HOUR: Minnie
 Thornley (Soprano).
 5.0-6.0.—CHILDREN'S CORNER.
 6.30.—J. F. Russell on "Musical Appreciation."
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London. Local News.
 Radio Association Talk. *S.B. from London.*
 Prof. J. E. G. DE MONTMORENCY. *S.B.*
from London.

Light Symphony Concert.

ENID CRUIKSHANK (Contralto).
 ADELINA LEON (Solo Violoncello).
 THE "2ZY" AUGMENTED
 ORCHESTRA:
 Conductor, T. H. MORRISON.
 7.35.
 Overture, "The King of Ys" *Lalo*
 Suite No. I, "L'Arlésienne" *Bizet*
 Enid Cruikshank.
 "Fair Spring Is
 Returning" } ("Samson and } *Saint-*
 "O Love, From } Delilah") } *Saens*
 Thy Power" }
 Adelina Leon.
 "Air" *Tenaglia*
 "Poem" *Fibich*
 "Allegretto" *Wolstenholme* (11)
 Orchestra.
 Symphony No. 8 in B Flat Minor...*Haydn*
 Enid Cruikshank.
 "Sea Wrack" *Harty* (1)
 "After a Dream" *Favre*
 "The Heart Worships" *Holst* (4)
 Adelina Leon.
 "Swedish Melody" ... *arr. Percy Grainger*
 "Orientale" *Cesar Cui*
 "Cherry Ripe" *Cyril Scott*
 "Spanish Serenade" *Glazounov*
 Orchestra.
 "Ballet Divertissement" ... *Blattermann*
 9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Topical Talk. Local News.
 10.0. JAMES WORSLEY
 (Lancashire Dialect Entertainer).
 10.30.—Close down.

5NO NEWCASTLE. 400 M.

3.45-5.15.—Dorothy Purvis (Contralto). Jack
 Boddie (Solo Euphonium). James
 Griffiths (Solo Violoncello). Weekly News
 Letter. Joyce Robson, B.Sc., "Modern
 Egyptian Women."
 5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.30.—Scholars' Half-Hour: Mr. T. W.
 Moles, B.A., B.Sc., "The Rise of the
 English Drama—Christopher Marlowe."
 6.35-6.50.—Farmers' Corner: Mr. H. C. Paw-
 son: "Farming, Past and Present."
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Radio Association Talk. *S.B. from London.*
 Prof. J. E. G. DE MONTMORENCY.
S.B. from London. Local News.

Variety Night.

BEATRICE MIRANDA (Soprano).
 GRACE IVELL and VIVIAN WORTH
 (Entertainers).
 JEROME MURPHY (Irish Song and
 Humour).
 GEORGE WADE (Solo Banjo).
 CATCHESIDE WARRINGTON (Tyneside
 Entertainer).
 THE PRUDHOE GLEEMEN.
 THE STATION ORCHESTRA:
 Conductor, EDWARD CLARK.
 7.35.
 Overture, "Light Cavalry" *Suppé*
 7.45
 Jerome Murphy.
 "Tatters and Tucks" *F. Norton*
 "Nora Carew" (New Song) *H. Jenner*
 "Tramping Down to Sligo" ... *T. Brayton*
 "An Irish Proposal" *L. Kane*
 7.55.
 Beatrice Miranda.
 "Dream o' Day Jill" ("Tom Jones")
E. German
 8.5.
 Prudhoe Gleemen.
 North Country Air, "John Peel"
arr. Fletcher (2)
 "Newquay Fishermen's Song"
Mackenzie (2)
 "Ca Hawkie" *arr. Whittaker* (14)
 8.20.
 Grace Ivell and Vivian Worth.
 "Calling Thro' the Shadows" ... *Fornander*
 "Mary Had a Little Lamb" ... *M. C. Day*
 "Don't Mind the Rain" ... *Miller and Cohn*
 Orchestra.
 8.30.
 Scarf Dance and Variation...*Chaminade* (5)
 8.40.
 Jerome Murphy.
 "The Next Market Day" *Hughes* (1)
 "A Ballynure Ballad" *Hughes* (1)
 Monologue.
 "Michael Patrick Doolin"
 "Paddy's Perplexity" } *J. M. Kenney*
 8.50.
 Beatrice Miranda.
 "Cherry Ripe" *C. Scott* (4)
 "The Happy Journey" ... *E. Austin* (8)
 9.0.
 Grace Ivell and Vivian Worth.
 "My Sunshine Girl" ... *Geoffrey Stanton* (9)
 "The Ogo-Pogo" *Mark Strong* (26)
 "Chili Bom-Bom" *Donaldson* (7)
 9.10.
 Prudhoe Gleemen.
 Part Song, "Full Fathom Five" *Dunhill*
 Folk Song, "Bobby Shaftoe"
arr. Whittaker (14)
 Negro Melody, "Poor Old Joe"
arr. Fletcher (2)
 9.20.
 Orchestra.
 Flower Waltz *Tchaikovsky*
 9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Topical Talk. Local News.
 George Wade.
 "The Mosquitos' Parade"
Witney, arr. Essex (6)
 "The Teddy Bears' Picnic"
Bralton, arr. Essex (6)
 "The Crofters' Polka" *Nickolds*
 10.10.
 Catcheside Warrington.
 "The Neibors Doon Belaa"
arr. Warrington
 Story, "The Fishwife and the Census Man"
Gascoigne
 10.20.
 Prudhoe Gleemen.
 Part Song, "I Loved a Lass" ... *Byson* (2)
 Medley of Old English Songs *Bales* (2)
 African Idyl, "Tumbuctoo" ... *Geibel* (2)
 Part Song, "Reveillé" *Elgar* (11)
 10.30.
 Catcheside Warrington.
 Song, "Wor Nanny's a Mazar"
arr. Warrington
 Song, "Last Neet" *arr. Warrington*
 George Wade.
 10.40.
 "Fun on the Wabash" *Parke Hunter*
 "Night Club Parade" } *Grimshaw*
 "Lancashire Clogs" }
 10.50.
 Prudhoe Gleemen.
 Part Song, "The Song of the Jolly Roger"
Chudleigh Candish (2)
 North Country Ballad, "Border Ballad"
Maunder (11)
 Part Song, "When Evening's Twilight"
Hatton (11)
 11.0.—Close down.

2BD ABERDEEN. 495 M.

3.30-5.0.—The Wireless Dance Orchestra.
 5.30-6.0.—CHILDREN'S CORNER.
 6.30-6.35.—Girl Guides' Bulletin.
 6.40-6.55.—Boy Scouts' Bulletin.
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Radio Association Talk. *S.B. from London.*
 Prof. J. E. G. DE MONTMORENCY.
S.B. from London. Local News.
 7.35-9.30.—Programme *S.B. from Glasgow.*
 9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Mr. GEORGE MACDONALD. *S.B. from*
Edinburgh. Local News.
 10.0.—Programme *S.B. from Glasgow.*
 10.30.—Close down.

5SC GLASGOW. 420 M.

3.30-4.50.—The Wireless Quartet. Isobel
 Semple (Contralto). Afternoon Topics.
 5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.5.—Weather Forecast for Farmers.
 6.40-6.55.—B. Buckeridge: Topical Talk.
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Radio Association Talk. *S.B. from London.*
 Prof. J. E. G. DE MONTMORENCY.
S.B. from London. Local News.
A Varied Programme.
S.B. to Aberdeen and Dundee.
 JOHN HUNTINGTON (Baritone).
 AUGUSTUS BEDDIE (Story Recital).
 Mr. and Mrs. FRANK MERTON
 (Hawaiian Guitar Players).
 THE STATION ORCHESTRA:
 Conducted by
 HERBERT A. CARRUTHERS.
 7.35.
 Orchestra.
 Overture, "The Yeomen of the Guard"
Sullivan &
 Selection, "The Girl Behind the Counter"
Talbot
 7.55.
 John Huntington.
 Prologue, "I Pagliacci" ... *Leoncavallo*
 "The Fishermen
 of England" } ("The Rebel
 "Unavailing } Maid") } *M. Phillips*
 Little Lady" }
 8.5.
 Mr. and Mrs. Frank Merton.
 "Aloha Oe."
 "Moonlight in Dixie."
 "Come and Dance With Me."
 Hawaiian Guitar and Ukulele, "Kahola
 March."
 8.15.
 Orchestra.
 Romantic Suite *Stanley*
 8.25.
 Augustus Boddie.
 "A SPRIG OF APPLERINGIE."
 (Joseph Laing Waugh.)
 9.0.
 John Huntington.
 "The Tramp" *Y. Sawyer*
 "West Country Lad" ("Tom Jones")
E. German
 "Marching Along" *M. V. White*
 9.10.
 Mr. and Mrs. Frank Merton.
 "Hawaiian Melody."
 "Kilama Waltz."
 Hawaiian Guitar and Ukulele, "Say It
 With a Ukulele" *Feldman* (6)
 Banjo (Andante and Waltz) ... *Cammeyer*
 Duets ("Torchlight Parade" ... *Mortley*
 Orchestra.
 9.22.
 Concert Valse, "My Dream" ... *Waldteufel*
 9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
 Mr. GEORGE MACDONALD. *S.B. from*
Edinburgh. Local News.
 10.0.
 John Huntington.
 "Little Grey Home in the West." *H. Lohr*
 "King Charles" *M. F. White* (1)
 10.10.
 Orchestra.
 "Tangled Tunes" *Ketelbey*
 March, "Old Comrades" *Teike*
 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 255.

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.
HIPPEL TOWER (PI)—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, 3.33, 4.30 * p.m., Stock Exch. (exc. Sun. and Mon.); 6 p.m., Con., News; 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.).
RAIRO-PARIS (SFR)—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.
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., *Surtout* 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 PI 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, 345m.
 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)—330 m. From Hamburg.
NUMMERSBERG (Relay Station)—340 m. From Munich.
HAMBURG—395 m.
 Sundays: 7.55 a.m., Time Sig., Weather, News, Lec.; 10.0, Sacred Con., Lec.; 12.0, Con.; 1 p.m., Chess, Lec.; 3 p.m., Children (Wed.); 4 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, Spanish Lesson; 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.); 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 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.).
BRUNSLAU—418 m.
 10.15 a.m., Stock Exch., Weather; 11.0, Factory Con. (weekdays); Classical 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.); 5 p.m., Shorthand (Sat.); Mah., Jongg (Wed.); 6.15, Esperanto (Mon.), English (Tue.), Shorthand (Wed.), Lec. (other days); 7.30 p.m., Con., Weather, Time Sig.; 8.30 p.m., Dance (Sun.).
BERLIN (II)—500 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.).
STUTTGART—443 m.
 10.30 a.m., Con. (Sun.), other days irreg.; 3 p.m., Time Sig., Orch. (Sun.); 4.45 p.m., Time Sig., Weather, Orch.; Children (Wed. and Sat.); 6.30, Lec.; English Humour (Fri.); 7 p.m., News, Con. or Opera; 8.15 p.m., Time Sig., Late Con.; 9.15 p.m., News, etc.
LEIPZIG—454 m.
 8 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., relay of Opera

(irreg.), 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 (Tue.); 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.); 6.30, 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.).
KOENIGSWESTERHAUSEN (LP)—Near Berlin.
 2,450 m. 6.30 a.m. to 7.40 p.m., Wolf's Press News, 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.; 12.30, 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.

BELGIUM.
BRUSSELS (SBR)—285 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.
HAEREN (BAV)—1,100 m.
 Weekdays: 1 p.m., 2 p.m., 4.50 and 6.50 p.m., Weather.

CZECHO-SLOVAKIA.
KBELY (OKP)—1,100 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.).

DENMARK.
COPENHAGEN (Kjobenhavns Radiofonistation)—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 (OXE)—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)—2,125 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.).
AMSTERDAM (PX9)—1,070 m.
 8.40 p.m., Con. (Mon.).
AMSTERDAM (PA5)—1,050 m.
 7.40 p.m., Con. (Wed.).
HILVERSUM (HDO)—1,050 m.
 6.55 p.m., Children (Mon.); 8.40 p.m., Lec. and Con. (Fri.); 7.40 p.m., Con. (Sun.).

B.B.C. STATION ADDRESSES.

| MAIN. | |
|----------------|---|
| Addresses. | Telephone No. |
| ABERDEEN | 7, Belmont Street ... 2295 |
| BELFAST | 31, Linenhall Street, Belfast. |
| BIRMINGHAM | 105, New Street ... 209 |
| BOURNEMOUTH | 72, Holdenhurst Road ... 3450 |
| CARDIFF | 39, Park Place ... 2514-5 |
| GLASGOW | 21, Blythswood Square Douglas 1192 |
| LONDON | 2, Savoy Hill, W.C.2. Regent 6730 |
| MANCHESTER | Orme Buildings, The Paragon City 9546 |
| NEWCASTLE | 24, Eldon Square. Centra. 5665 |
| 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, Waeel, Corporation Street. Central 4020 |
| LEEDS-BRADFORD | Cabinet Chambers, Basinghall Street, Leeds ... 28131 |
| STOKE-ON-TRENT | Majestic Buildings, Stoke-on-Trent. Hanley 1973 |
| NOTTINGHAM | 4, Bridlesmith Gate, Nottingham 6944 and 6945 |
| DUNDEE | 1, Leche, Road. Dundee 6209 |
| SWANSEA | Oxford Buildings Oxford Street ... Swansea 3107 |

YMUDDEN (PCMM)—1,050 m.
 7.40 p.m., Con. (Sat).
VOSSEWAT (E6)—1,050 m.
 12.30 and 7.40, Weather.
SOESTERBERG—1,050 m.
 7.26 p.m., Weather.
 * Except Mon. and Sat. (10.10-11.10 a.m.).

HUNGARY.
BUDA-PESTH (MT4)—980 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.; 2.30 p.m., Stock Exch.; 7 p.m., Con.
CENTOCELLE (ICD)—1,800 m.
 3 and 7.30 p.m., News.

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

NORWAY.
CHRISTIANIA (OSLO)—440-500 m. (wave length not definitely fixed).
 About 7.30 p.m., almost daily Tests.

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

RUSSIA.
MOSCOW—3,200 m.
 1.30 p.m., Lec. (irreg.). Broadcasting service in course of organization.

SPAIN.
MADRID (EAJ2)—Radio-España—335 m.
 Daily: 6 p.m., Con.
MADRID (RI)—302 m.
 Daily: 9 p.m., Weather, Stock Exch., Time Sig., Con., News. Sundays: 4.30 p.m., Con.
BARCELONA (EAJ1)—325 m.
 Daily: 5 and 9 p.m., Con.
SEVILLE (RAJ5)—350 m.
 6.30 p.m., Con.; 6.55, Weather; 7 p.m., Time Sig.; 7.5, Lec. (irreg.); 7.30, Con., News; 7.45, Con.

SWEDEN.
STOCKHOLM (SASA)—427 m.
 6.45 p.m., News, Con. (daily).
 Sundays: 10 a.m., Relay of Relig. Serv. from St. James' Church.
BODEN—2,500 m. Tests only. Reg. trans. expected to begin in February.
GOTHENBURG (SASB)—230 m. New station will open about end January. Times not yet fixed, but probably 6.45 p.m., News; 8 p.m., Con. (daily).
MALMOE (SASG)—270 m. To open shortly. Times as Gothenburg.
 Sundays: 10 a.m.
 Service relayed from St. Peter's Cathedral.
SUNDSVALL—680 m. Will open in March next.

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—2RL, 350 m.
 2FC, 1,100 m.
PERTH—6WF, 1,250 m.
MELBOURNE—3LO, 1,720 m.
 Following stations are in course of erection and will be shortly working:—
ADELAIDE—5AB, 340 m. and 5MA, 850 m.
MELBOURNE—3JO, 400 m. and/or 3RA, 480 m.
SYDNEY—2FL, 770 m.

AFRICAN STATIONS.
CAPE TOWN—WAMG, 375 m. (from 16.30 G.M.T.).
JOHANNESBURG—JB, 450 m. (from 16.30 G.M.T.).
DURBAN—600 m.
WALFISCH BAY—600 m.
SLANG KOP—630 m.

PRINCIPAL U.S.A. AND CANADIAN BROADCAST STATIONS.
KGO—312 m. Oakland, Cal.
KDKA—325 m. East Pittsburgh, Pa.
WBZ—337 m. Springfield, Mass.
WGY—380 m. Schenectady, N.Y.
WJY—405 m. New York City.
CKAC—425 m. Montreal, Ca.
CFAC—430 m. Calgary, Ca.
WJZ—455 m. New York City.
WEAF—492 m.

WIRELESS PROGRAMME—TUESDAY (Feb. 3rd.)

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 Cornelia de Lay (Contralto).
- 3.15-3.45.—Transmission to Schools: "The Country Side—Horses," by Patricia Johnson.
- 4.0-5.0.—Time Signal from Greenwich. "Books to Read," by Ann Spice. "Historical Pictures—(6) Purcell, the English Musician," by Alice Cunninghame. Organ and Orchestral Music, relayed from Shepherd's Bush Pavilion.
- 5.30-6.15.—CHILDREN'S CORNER: "The Three Acorns," by Norah Turner. Songs by Mavis Bennett (Soprano).
- 6.40-6.55.—An Appeal on behalf of the Caldecott Community, by the Hon. Mrs. Alfred Lyttleton, D.B.E.
- 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.

Ballad Concert.

S.B. to all Stations.

- CARRIE TUBB (Soprano).
- LEONARD GOWINGS (Tenor).
- MICHAEL HEAD (Baritone).
- MARK AMBIENT (Recitals).
- A. E. NICKOLDS and ALBERT H. HOWE (Entertainers).
- THE "2LO" QUARTET.

- 7.30. The Quartet.
 - "Serenata" *Moszkowski*
 - "Miserere" ("Il Trovatore")... *Verdi*
Leonard Gowings.
 - "Now Sleeps the Crimson Petal"
Quilter (1)
 - "Amour d'Automne" ("Autumn Love")
Chaminade (5)
 - "The Shepherd's Song" *Elgar*
Mark Ambient.
 - "Kissing Cup's Race," by an Old Jockey
C. Rae Brown
 - "If I Darest"—by a Small Boy
Eugene Field
Carrie Tubb.
 - "Alleluia" (by request)
arr. O'Connor Morris (1)
 - "Ocean, Thou Mighty Monster"
("Freischütz") *Weber*
Michael Head.
 - "A Farmer's Son So Sweet"
arr. S. Baring-Gould
 - "The Hare's on the Mountain"
arr. Cecil Sharp
 - "Down by the Riverside"
arr. Vaughan-Williams (11)
 - "The Lass of Richmond Hill"
Traditional
The Quartet.
 - "Ritournelle" *Chaminade* (5)
 - "Valse-Bluette" *Drigo*
- 8.30 (approx.). A. E. Nickolds and Albert H. Howe.
Vocal, Instrumental, and Humorous Harmony.
The Quartet.
 - "A Prairie Lullaby" *Stanford Robinson*
 - "Serenade" *Drigo*
Leonard Gowings.
 - "The Devon Maid" *Frank Bridge*
 - "Murmuring Breezes" *Jenson*
 - "The Maiden Blush" *R. Quilter*
Carrie Tubb.
 - "The House of Clouds"
L. Stanton Jefferies
 - "Drawing" (First Performance)
L. Stanton Jefferies
 - "Ecstasy" *Rummel*
 - "Song of the Palanquin Bearers"
Martin Shaw (2)

"From My Window," by PHILEMON.
Michael Head.

"A Piper" }
"Summer Idyll" ... } .. *Michael Head* (1)
"A Love Rhapsodie" }
The Quartet.
Favourite Airs by Puccini.

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

9.25.—Sir OLIVER LODGE, F.R.S., "Electric Behaviour of Ether. What a Charge is Like, and How It Acts a Long Way Off." *S.B. to all Stations.*

Local News.

10.0 (approx.). **The First Night** of the Musical Play, "**LOVE'S PRISONER.**" Act III. Relayed from The Adelphi Theatre, London. *S.B. to all Stations.*

10.40 (approx.).—THE SAVOY ORPHEANS, AND SAVOY HAVANA BAND, AND SELMA FOUR, relayed from the Savoy Hotel, London. *S.B. to all Stations.*

12.0.—Close down.

We ask the indulgence of our Listeners if the approximate timings given above are not adhered to. It is difficult to estimate the exact length of a first performance.

5IT BIRMINGHAM. 475 M.

- 3.30-4.0.—Lozells Picture House Orchestra.
- 4.0-4.30.—School Transmission: Dr. ADRIAN C. BOULT (Conductor of the City of Birmingham Orchestra): "Musical Appreciation."
- 5.0-5.30.—WOMEN'S CORNER: Jessie Bayliss Elliott, D.Sc. "The Perfume of Flowers." Edith Paddock (Soprano).
- 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."
- 7.0-12.0.—*Programme S.B. from London.*

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 prepared 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.

6BM BOURNEMOUTH. 385 M.

- 3.45-5.0.—Talk to Women: London Papers, read by Anne Farnell-Watson. The "6BM" Trio: Reginald S. Mount (Violin), Thomas E. Hingworth (Cello), Arthur Marston (Piano). Jack Hastings (Entertainer).
- 5.0-6.0.—CHILDREN'S CORNER.
- 6.0-6.30.—Scholars' Half-Hour: "Commercial Art," by Mrs. Dorothy Baker.
- 6.30-6.45.—Farmers' Talk: "Varieties of Potatoes," by Mr. C. J. Glead, F.R.H.S.
- 7.0-12.0.—*Programme S.B. from London.*

5WA CARDIFF. 351 M.

- 3.0-3.30.—Transmission to Schools.
- 3.30-4.0.—The Station Trio.
- 4.45-5.15.—"5WA'S" "FIVE O'CLOCKS." Mr. Isaac J. Williams, Keeper of Art, the National Museum of Wales: "Modern British Painters."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.40-6.55.—The Rev. A. J. Pearse: "Robert Louis Stevenson."
- 7.0-12.0.—*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 for Schools: Mr. E. Sims Hilditch on "Musical Appreciation" (5).
- 4.30-5.0.—WOMEN'S HALF-HOUR.
- 5.0-6.0.—CHILDREN'S CORNER.
- 6.30-6.55.—Local Radio Society Talk.
- 7.0-12.0.—*Programme S.B. from London.*

5NO NEWCASTLE. 400 M.

- 11.30-12.30.—Kitty Robinson (Soprano). Orchestra relayed from Tilley's Restaurant.
- 3.45-5.15.—Anne F. Whittaker (Soprano). Andrew Bevan (Solo Violin). Harold Earnshaw (Baritone). Florence Mather: "Home Nursing" (3).
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.40-6.55.—Mr. J. L. Gibson: French Talk.
- 7.0-12.0.—*Programme S.B. from London.*

2BD ABERDEEN. 495 M.

- 3.30-5.0.—The Wireless Sextet. Stephen Cosh (Bass). Dorothy Bannoche (Soprano). Feminine Topics.
- 5.15-6.0.—CHILDREN'S CORNER: St. Margaret's Episcopal School Junior Choir.
- 6.40-6.55.—The Rev. Walter A. Mursell on "Some Victorian Novelists: Thomas Hardy."
- 7.0-12.0.—*Programme S.B. from London.*

5SC GLASGOW. 420 M.

- 3.30-4.50.—The Wireless Quartet. Carmen Ladder (Light Soprano). Afternoon Topics.
- 5.15-6.0.—CHILDREN'S CORNER: Our Weekly Forty-five Minutes with the Smaller Children.
- 6.0-6.5.—Weather Forecast for Farmers.
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
JOHN STRACHEY. *S.B. from London.*
Local News.
- 7.30-8.0.—*Programme S.B. from London.*
- 8.0-8.20. THE SCOTTISH ORCHESTRA AND CHOIR.
Conducted by WILFRED SENIOR.
S.B. to Edinburgh and Dundee.
"Sea-Drift" *Delius*
- 8.20-12.0.—*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 255.

WIRELESS PROGRAMME—WEDNESDAY (Feb. 4th.)

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.—Talk to Schools: "The Elements of Wireless. Practical Application of Subject Matter of Talks 2 and 3," by Mr. H. J. HINKS (Radio Association).
4.0-5.0.—Time Signal from Greenwich. Concert: The "2LO" Trio and Cyrus Gar-side (Baritone). "My Part of the Country," by A. Bonnet Laird. "Great Grandmother as Lady Bountiful," by Kathia Herrick.
5.30-6.15.—CHILDREN'S CORNER: Dale Smith singing songs from "When We Were Very Young," words by A. A. Milne; music by H. Fraser Simson. The Cloud Lady at the Piano. "The Brave Princess Eleanor," from "My Book of Best Stories from History," by Hazel Phillips Hanshew.
6.40-6.55.—Mr. ERNEST G. BLAKE, M.R.S.I., "Following the Hunt."
7.0.—TIME SIGNAL FROM BIG BEN. WEATHER FORECAST and 1ST GENERAL NEWS BULLETIN. *S.B. to all Stations.*
Mr. H. G. WAYLING, M.Sc., "Alchemy." *S.B. to all Stations.*
Local News.

Popular Night.

CHARLES TRUE (Baritone).
ARTHUR SPENCER (Solo Pianoforte).
HARRY EAST (Entertainer).
PHYLLIS SCOTT (Songs at the Piano).
MOYRA O'KEEFE (Violin).
In Comedy Duets.
THE WIRELESS ORCHESTRA:
Conducted by DAN GODFREY, Junr.
7.30. Orchestra.
March, "Viviana" *Cliff Jewells* (1)
Overture, "Poet and Peasant" ... *Suppé*
Charles True.
"The Wayfarer's Night Song" *Martin* (5)
"West Country Lad" *German*
Arthur Spencer.
"Hungarian Rhapsody," No. II ... *Liszt*
The Orchestra.
Waltz, "My Pearl" ... *Sydney Burnstead*
Morceau, "Joy Bells" *Sydney Burnstead*
(These two items will be conducted by the
Composer.)
Harry East.
"Suspicions" (13)
The Orchestra.
Selection, "Decameron Nights" ... *Finck*
Moyra O'Keefe and Phyllis Scott.
"Rock-a-bye Baby" (23)
"Hum a Little Tune" (7)
"Can't You Spare a Little Love?" (7)
"Ma Dusky Maid."
The Orchestra.
Intermezzo, "In a Kentish Garden"
Dawkinson
Patrol, "The Wee Macgregor" ... *Ancers*
Charles True.
"The Sun God" *James*
"Myself When Young" *Lekmann*
Arthur Spencer.
Valse in E *Moszkowski*
Harry East (with Orchestra).
"My Poultry Farm."
The Orchestra.
Selection, "Battling Butler" *Braham*
9.30.—TIME SIGNAL FROM GREENWICH.
WEATHER FORECAST AND 2ND
GENERAL NEWS BULLETIN. *S.B.*
to all Stations.
British Drama League Lecture Recital.
"Shakespeare and His Theatre."
S.B. to all Stations.
The Week's Work in the Garden, by the
Royal Horticultural Society. *S.B. to*
other Stations.
Local News.
10.20. The Orchestra.
Overture, "The Pirates of Penzance"
Sullivan
10.30.—Close down.

5IT BIRMINGHAM. 475 M.

3.30-4.30.—The Station Pianoforte Quintet.
5.0-5.30.—WOMEN'S CORNER: Mabel France,
"Everyday Difficulties."
5.30-6.30.—CHILDREN'S CORNER.
6.30-6.45.—Teens' Corner: Mr. R. F. Fuller
(Birmingham Natural History and Philo-
sophical Society) on "Chile."
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
Mr. H. G. WAYLING. *S.B. from London.*
Local News.

Chamber Music.

THE EDNA WILLOUGHBY PIANO-
FORTE TRIO:
GWENDA EATON (Violin).
AUDREY EVANS (Violoncello).
EDNA WILLOUGHBY (Pianoforte).
ANNE THURSFIELD (Contralto).
LEONARD GORDON (Baritone).

7.30. Leonard Gordon.
"How Deep the Slumber of the Floods"
Loewe
"Elegy" *Massenet*
"Love Song" *Brahms*
"My Sweet Repose" *Schubert*
Anne Thursfield.
Selected Songs.
Pianoforte Trio.
8.0. Trio in A Major *Haydn*
Allegro Moderato; Andante; Allegro.
Keltic Prelude, "Land of Heart's Desire"
Rutland Boughton
Edna Willoughby.
Scherzo in B Flat Minor *Chopin*
Pianoforte Trio.
Two Old English Tunes *Roger Quilter*
"Drink to Me Only"; "Three, Poor
Mariners."
8.45. Anne Thursfield.
Selected Songs.
Pianoforte Trio.
9.0. Trio in G Major, Op. 20, No. 1
William Fenney
Moderato, ma brillante; Andantino,
sempre con moto express; Allegro con
moto.
Finale from Trio in D Minor, Op. 25
F. E. Bache
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.
10.20. Leonard Gordon.
"Had a Horse" *Korbay*
"Shepherd, See Thy Horse's Foaming
Mane" *Korbay*
"Trottin' to the Fair" *Stanford* (1)
10.30.—Close down.

6BM BOURNEMOUTH. 385 M.

3.0-3.20.—Service for the Sick: Winifred Ascott
(Soprano). Address by the Rev. Father
Percival Triggs.
3.45-5.0.—Talk to Women by Miss Doulton-
Edwards. Charles Crayford and Roma
Howard (Entertainers). Thomas E. Il-
lingworth (Cello Solos).
5.0-6.0.—CHILDREN'S CORNER.
6.0-6.30.—Scholars' Half-Hour: "Decorating
the Home—Other Trimmings," by Alma
Faulkner.
6.30-6.35.—Station Talk by Bertram Fryer
(Station Director).
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
Mr. H. G. WAYLING. *S.B. from London.*
Local News.
7.30-8.0.—Interval.

Winter Gardens Night.

THE MUNICIPAL ORCHESTRA:
Conductor, Sir DAN GODFREY.
ROBERT CHIGNELL (Vocalist).
Relayed from the Winter Gardens.
Orchestra.
8.0. March, "Admirals All" *Hubert Bath*
"A Military Overture" *John Ansell*
"Waltz on Irish Airs" *Bucalossi*

Robert Chignell.

"Vulcan's Song" *Gounod* (1)
W. W. BENNETT (Solo Xylophone).
"Polacca" }
"Picaroon" } *Green*
Orchestra.
Selection of Welsh Airs, "The Leek"
Myddleton
BERTRAM LEWIS (Solo Violin).
"Gypsy Melodies" *Sarasate*
Orchestra.
"Cockney Suite" *A. W. Ketelbey*
Pizzicato, "Mandoline Serenade" *Discormes*
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.
10.20-10.30.—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.—Mr. R. Boutflour, B.Sc., Agricul-
tural Organiser for Wiltshire: "The
Management of Rations for Dairy Cows."
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
Mr. H. G. WAYLING. *S.B. from London.*
Local News.

Operatic Evening.

ENID CRUICKSHANK (Contralto).
LEONARD GOWINGS (Tenor).
THE STATION ORCHESTRA:
Conductor, WARWICK BRAITHWAITE.
Orchestra.
7.30. Selection, "Manon Lescaut" *Puccini-Taras*
Leonard Gowings.
"The Post's Song" ("La Bohème")
Puccini
"Spirit So Fair" ("La Favorita")
Danizetti
Enid Cruickshank.
"Fair Spring is Returning" ("Samson and
Delilah") *Saint-Saens*
"The Flower Song" ("Faust") *Gounod*
"Lia's Song" ("The Prodigal Son")
Debussy
Orchestra.
Selection, "La Traviata" *Verdi*
Talk: "Stories from the Operas."
Leonard Gowings.
"Heaven and Ocean" ("La Gioconda")
Ponchielli
"The Flower Song" ("Carmen") *Bizet*
Enid Cruickshank.
"Habanera" } ("Carmen") *Bizet*
"Seguidilla" }
"Fierce Flames Were Raging" ("Il Troy-
atore") *Verdi*
Orchestra.
"Dreams" *Wagner*
Prelude and Closing Scene ("Tristan and
Isolde") *Wagner*
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.
10.20. Orchestra.
"The Ride of the Valkyries" *Wagner*
10.30.—"MAX CHAPPELL'S LONDON
CHOREANS IN BAGHDAD" (Oriental
Dance Music), relayed from the Bute
Rooms, Cox's Café.
11.30.—Close down.

2ZY MANCHESTER. 375 M.

3.0-3.30. { Music relayed from the Piccadilly
4.0-4.30. { Picture Theatre. (Conductor,
Stanley E. Mills.)
3.30-4.0.—Broadcast for Primary Schools: Mr.
H. B. Brennan, B.A., "King John."

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 255.

WIRELESS PROGRAMME—WEDNESDAY (Feb. 4th.)

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

4.30-5.0.—WOMEN'S HALF-HOUR. George Bond (Baritone).
 5.0-6.0.—CHILDREN'S CORNER.
 6.30-6.55.—Walter Emsley: Reading from his own Poems in the Lancashire Dialect.
 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Mr. H. G. WAYLING. *S.B. from London.*
 Local News.

Orchestra, Violin, and Humour.

MARJORIE HAYWARD (Solo Violin).
 VICTOR SMYTHE IN AN "ALGY" SKETCH.
 THE "ZZY" ORCHESTRA.

7.30. Orchestra.
 Overture, "The Wanderer's Goal" *Suppe*
 Intermezzo, "Moontime" *Collins*
 "Selection of Harry Lauder's Songs"
arr. Warwick Williams (7)

7.55. Marjorie Hayward.
 "Air" *Parcell-Lambert*
 "Largo" from "Berenice"
Handel, arr. W. Davies

"Bourrée" (Old English) *arr. Moffatt*
 "Admiral's Galliard" *arr. Moffatt*
 Orchestra.

Suite, "Yankiam" *Thurhan (1)*
 String Piece, "Far From the Ball" *Gillet*
 Selection, "Baby's Opera" *Byng*

8.37. Victor Smythe.
 An "Algy" Sketch *R. Guy Reeve*
 Orchestra.
 Selection, "La Gran Via"
Valverde, arr. Finck

9.5. Marjorie Hayward.
 "Song of Meditation" *Cottent*
 "The Dove" (Old Welsh Air)
arr. Somerville
 "Canzonetta" *d'Ambrosio*
 "Irish Reel" *Stanford (1)*
 Orchestra.

Selection, "San Toy" *S. Jones*
 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.

10.20. Marjorie Hayward.
 Rondo *Chabran-Yachez*
 Rondo in G *Mozart-Kreisler*
 10.30.—Close down.

5NO NEWCASTLE. 400 M.

3.45-5.15.—May Osborne (Mezzo-Soprano). The Station Septet. Katherine Maclellan, "The Fisher Folk of Sir Walter Scott's Novels." Isobel Spence (Soprano)—Scottish Songs.

5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.20.—Scholars' Half-Hour: Mrs. W. M. Rixham, "Types of Swiss Life."
 6.35-6.50.—Farmers' Corner: Prof. Gilchrist, Seasonable Notes.

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Mr. H. G. WAYLING. *S.B. from London.*
 Local News.

Operatic Selections.

CONSTANCE HAY (Contralto).
 THE STATION ORCHESTRA;
 Conductor, EDWARD CLARK.

7.30. Orchestra.
 Overture, "Rienzi" *Wagner*
 7.45. Constance Hay.
 Voce di Donna ("La Gioconda")
Ponchielli
 O Don Fatéle ("Don Carlo") *Verdi*

7.55. Orchestra.
 Selection, "A Life for the Czar" *Glinka*
 8.0. Constance Hay.
 "Softly Awakes My Heart" ("Samson and Delilah") *Saint-Saens*
 "Ah! I Have Sighed to Rest Me" ("Il Trovatore") *Verdi*

8.15. Orchestra.
 Selection, "Hérodiade" *Massenet*

8.25.—Speeches by Brevet-Col. ERNEST ROBINSON, O.B.E., T.D., D.L., Officer Commanding Tyne Electrical Engineers, and Lieut.-General Sir HUGH S. JEUDWINE, K.C.B., K.B.E., Director-General of the Territorial Army, on the occasion of the Annual Distribution of Prizes, Tyne Electrical Engineers, R.E. Relayed from the Empress Ball Room, Whitley Bay.

9.0. Orchestra.
 Ballet Music, "William Tell" *Rossini*
 Overture, "The Poacher" *Lortzing*
 9.30-10.30.—Programme *S.B. from London.*

2BD ABERDEEN. 495 M.

3.30-4.45.—The Wireless Sextet. Winifred McLeod (Contralto). Feminine Topics.
 5.15-5.45.—CHILDREN'S CORNER: Auntie Alice makes merry at the Piano.

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Mr. H. G. WAYLING. *S.B. from London.*
 Local News.

Popular Night.

JOHN HUNTINGTON (Baritone).
 JEROME MURPHY (Entertainer).
 THE WIRELESS ORCHESTRA.

7.30. Orchestra.
 Overture, "Humours of Donnybrook" *Volti (36)*

7.40. John Huntington.
 "The Fishermen of England" *Phillips*
 "Unavailing Little Lady" *Phillips*

7.50. Jerome Murphy.
 "The Next Market Day" *arr. Hughes*
 "A Ballynure Ballad" *(1)*
 "A Good Roaring Fire" *(1)*

8.0. Orchestra.
 Selection, "The Grand Duchess" *Offenbach*
 8.15.—VERSE SPEAKING ASSOCIATION. *S.B. from Glasgow.*

8.45. John Huntington.
 "Day Dreams" *Saucy*
 "One Perfect Hour With You" *Saucy*

KEY LIST OF MUSIC PUBLISHERS.

- Boosey and Co.
- Curwen, J., and Sons, Ltd.
- Herman Darewski Music Publishing Co.
- Elkin and Co., Ltd.
- Enoch and Sons.
- Feldman, B., and Co.
- Francis, Day and Hunter.
- Larway, J. H.
- Lawrence Wright Music Co.
- Cecil Lennox and Co.
- Novello and Co., Ltd.
- Phillips and Page.
- Reynolds and Co.
- Stainer and Bell, Ltd.
- Williams, Joseph, Ltd.
- Cavendish Music Co.
- The Anglo-French Music Company, Ltd.
- Beal, Stuttard and Co., Ltd.
- Dix, Ltd.
- W. Paxton and Co., Ltd.
- Warren and Phillips.
- Reeder and Walsh.
- West's, Ltd.
- Forsyth Bros., Ltd.
- Bayley and Ferguson.
- Laraine and Co., Ltd.
- Duff, Stewart and Co., Ltd.
- Wilford, Ltd.
- Dolart and Co.
- John Blackburn, Ltd.
- Keith Prowse and Co., Ltd.
- Worton David, Ltd.
- A. J. Stamey Music Co., Ltd.
- Paterson, Sons and Co., Ltd.
- Reid Bros., Ltd.
- James S. Kerr.

On page 107 of our issue dated January 9th, we gave the incorrect indication number of the publishers of "GRACEFUL DANCE," from "HENRY VIII," Sullivan. This item is published by Metzler & Co. (1920), Ltd., 142, Charing Cross Road, London, W.C.2.

8.55. Jerome Murphy.
 "Nora Carew" *Jenner*
 Recitation, "The Old Bog Road" *Brayton*
 "The Sailor Man" (Songs of the Glens of Antrim) *Stanford (1)*

9.5. John Huntington.
 "West Country Lad" *German*
 "If Love's Content" *German*
 "Little Grey Home in the West" *Lohs*
 Orchestra.

9.20. Orchestra.
 Overture, "The Merry-makers" *Coates*
 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.

10.20. Jerome Murphy.
 "The Foggy Dew" *Fox (25)*
 "The Dark-Haired Girl" *arr. Hughes (1)*
 "Beautiful City of Sligo" *Stanford (1)*
 10.30.—Close down.

5SC GLASGOW. 420 M.

3.30-4.0.—Broadcast to Schools.
 4.0-5.10.—The Wireless Quartet: Betty Wilson (Soprano). Afternoon Topics.

5.15-6.0.—CHILDREN'S CORNER.
 6.0-6.5.—Weather Forecast for Farmers.
 6.40-6.55.—Allan Mainds, "Painting."

7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
 Mr. H. G. WAYLING. *S.B. from London.*
 Local News.

Request Night.

CARMEN HILL (Soprano).
 MARJORY GULLAN'S VERSE
 SPEAKING CHOIR.
 THE STATION ORCHESTRA.
 Conducted by ISAAC LOSOWSKY.

7.30. Orchestra.
 Selection, "San Toy" *Jones*
 Suite, "The Merchant of Venice" *Rosce*
 Prelude; Intermezzo, "Portia"; Oriental March; Prelude; Doge's March.

Waltz, "The Merry Widow" *Lehar*
 8.15. SCOTTISH ASSOCIATION FOR THE SPEAKING OF VERSE. *S.B. to Aberdeen.*

Miss GULLAN will speak on "How to Listen to Poetry" (With Illustrations).
 Illustrations.

"My Love" *Burns*
 "She Dwelt" and part of "The Ode of Intimations" *Wordsworth*

Part of "The Cloud" *Shelley*
 Part of "Rabbi Ben Ezra" *Browning*
 First few verses, "Super Flumina Baby-lonis" and "Baby" *Spenser*

The Bible, "Isaiah," Chap. 55.
 Scottish Version of Psalm 23.
 Prose, A Passage from "The Pilgrim's Progress."

8.45. Orchestra.
 Potpourri, "Melodious Memories" *Finck*

9.0. Carmen Hill.
 Recital of Roger Quilter Songs (1).
 "Now Sleeps the Grimson Petal."
 "A Land of Silence."
 "A Song of the Blackbird."
 "Weep, You, No More."
 "Mistress Mine."
 "To Daisies."
 "Love's Philosophy."

9.20. Orchestra.
 Entr'acte, "Sanctuary of the Heart" *Ketelbey*

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.

10.20. Orchestra.
 Waltz, "Whirl of the Waltz" *Lincke*
 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 this page.

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

Insects That Disguise Themselves.

HULLO, children! Did you know that some insects play games of make-believe? Here is an interesting talk by M. Catherine Wiens that tells you about some of them.

One day, as I was sitting on a bit of common land, with purple clumps of heather all about me, I noticed two tiny grey spots on my shoe. At first, I thought they were small pieces of lichen that had broken off from the heather stalks as they brushed against my foot. Then there seemed to be something rather queer about them, for one of them began to move. I looked hard and, sure enough, it *was* lichen, and although I knew what a curious little plant it was, nobody had ever seen it walk before. So I determined to examine this mystery more closely.

A Useful Pair of Pincers.

There was a tiny insect underneath the lichen! It was a long narrow little creature, almost transparent, and rather the colour of a shrimp before it is cooked. It had the usual six legs, which took it along quite fast, especially as its tail seemed to give some assistance too, when the ground over which it walked was difficult or rough. But the surprising part was the pincers in front of its face, sticking out below the feelers. I soon found why it had these, because I took a pin and tried to lift some of the grey lichen off its back. Some came off easily, but it got rather angry and would not let me take it all away. However, I had seen enough, for it seemed that the insect had quite long spiky hairs on its back, which held the lichen on.

Well, I left some of the lichen on the pin and placed it near the insect. It caught sight of its lost garments in a moment and at once set to work to put them on again, bit by bit, with the aid of those useful pincers. It lost no time over it either; perhaps it felt cold. Looking very closely, I could just see a sticky thread

hanging from the bits of lichen it was lifting on to its back. So, you see, it was not running any risks; it made gluey threads to stick it on, as well as having long hairs on its back. I wish I could show you how deftly it caught hold of the lichen and how it bent the front part of its body right back over itself in order to place it on the right spot. And as it doubled back, its



No Cause for Alarm.

tail went up in sympathy; or, probably, it would be more correct to say that that was how it kept its balance.

Now I have told you all this in detail to show you one of the ways in which creatures protect themselves, by pretending they are something else. It is called "Protective Mimicry" and is one of the most fascinating of Nature's tricks.

And this reminds me of the cunning ways of the grubs of our beautiful Lacewing Flies. These are exquisite insects, like tiny fairies, with golden eyes, very slender bodies and the most delicate of green wings. Perhaps you have seen their tiny eggs, hanging by fine threads from the underside of the rose leaves. Isn't this a funny place to find eggs?

Enemies of the Greenfly.

When they are hatched, they eat up the egg-shell, which is very nice and tidy of them. Then they look about to see if they can find any little brothers and sisters not yet hatched and they gobble them up too; and this is not at all nice of them. We should call them cannibals, I fear. But after that they turn their attention to other game and you can guess what that is, since their home is on a rose-bush—Greenfly, one of the garden's worst enemies.

As the grubs move along the leaves, waging horrible war on the armies of Greenfly, they pile the empty skins of their victims on to their backs, and actually pretend they are just tiny rubbish heaps of skins! And, of course, that is an excellent scheme, because otherwise, no doubt, the birds would soon see the tempting fat grubs with their sharp eyes and make short work of them.

Then there are the Ladybirds, too, who are terrible enemies of the poor Greenfly.

When the tiny grubs hatch out, they lose no time, but start taking their meals off the Greenfly right away. They are horribly greedy, like the Lacewings, and like these, they also pile the skins on their little backs, so that the birds shall not catch sight of them and swoop down and gobble them up. The Ladybird grub is very careful altogether, for it does not rely entirely on the protection from its coat of skins; its own skin is so tinted as to imitate the colour of a twig and it is covered with spots.

So that is how three of our insects have learnt to protect themselves from harm, by playing the game of pretending.

CATCHING THE CALIPH.

By LANGFORD REED.



They fell on their knees in terror.

the Wonderful Lamp," and "The Forty Thieves," more than once.

There was another Caliph of Bagdad who was, also, fond of stories. His name was Mustapha Ben Nana, and he was an ugly little fat man.

But Mustapha had no Scheherazade to make them up for him, and no "wireless" to

THERE must be few children who are unacquainted with the "Arabian Nights" stories, which were told, night after night, for a thousand nights, by the beautiful Scheherazade to the illustrious Caliph of Bagdad, Haroun Al Raschid. I expect you have seen the pantomime versions of two of the stories, "Aladdin and

"Aladdin and the Wonderful Lamp," and "The Forty Thieves," more than once.

There was another Caliph of Bagdad who was, also, fond of stories. His name was Mustapha Ben Nana, and he was an ugly little fat man.

But Mustapha had no Scheherazade to make them up for him, and no "wireless" to

help him, such as a modern Caliph might rely upon. In despair, he sought the advice of Grindbad, his vizier, or chief officer of State, who reminded him that several good stories were obtained by the Caliph Haroun as he walked with his vizier through the city in disguise.

"That's a good idea, Grindbad," remarked the Caliph, amiably.

Accordingly, after dinner, the pair, disguised as merchants, set out upon their adventure and, at a street corner, came upon two men quarrelling.

"I tell you, Hassan, it's very simple," cried one, "and that's the only way to describe it."

"You're a donkey, Selim," retorted the other, "anyone who has ever seen it must agree that it is simply awful!"

"I must know the reason for those remarks, Grindbad," said the Caliph, "I feel sure there's a story behind them. Bring those fellows before me to-night, after supper, and we will hear it."

But when the two men were brought before Mustapha, they fell on their knees in terror.

"Forgive us, O Great One!" they cried, "We meant no harm."

"I shall be able to judge of that when I have heard your story," said the Caliph, sternly.

The wretched men groaned, and Hassan began as follows:—

"When Your Sublimity encountered his unworthy slaves this evening we were—we—were—er—discussing Your Highness and—and—"

"Proceed, my good fellow," said the Caliph,

not displeased, for in his conceit he foresaw a compliment, "what said you about me?"

"I—I am e-coming to it, O Excellence," continued the trembling Hassan; "well, this stupid Selim got excited and—"

"Believe him not, O Magnificence," interrupted Selim, "if he had not lost his head—"

"You'll both lose your heads if we have any more interruptions," broke in the Caliph, grimly. "Continue, Hassan."

"It was your august countenance, O Great One, that your slaves so far forgot themselves as to discuss. This donkey, Selim, would have it that it did not show the boundless wisdom of your mind and that it was awfully simple. I disagreed. I—I—said that it was—er—er—"

"This stupid fellow said it was simply awful, Your Magnificence," exclaimed Selim, "and that was the whole cause of the dispute."

The Caliph turned purple with rage.

"Of all the stupid stories!" he cried, "It is fortunate for you I have sworn not to harm you, or you should both die by the Torture of the Thousand and One Tickles. Go away and never let me see your silly faces again."

The two men made haste to depart, and the Caliph, turning to Grindbad, exclaimed:—

"This is your fault for advising that stupid adventure. See to it that a story-teller is in attendance to-morrow night, with something interesting to tell, or your own life shall pay the penalty."

How Grindbad carried out these instructions I will relate upon a future occasion.

WIRELESS PROGRAMME—THURSDAY (Feb. 5th.)

2LO LONDON. 365 M.

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

- 1.0-2.0.—Time Signal from Greenwich. The Week's Concert of New Gramophone Records.
- 3.15-3.45.—Transmission to Schools: "Children in Dickens—Morleena Kenwigs," by Mr. J. C. STOBART and Mr. R. E. JEFFREY.
- 4.0-5.0.—Time Signal from Greenwich. "A Trip Along the Mississippi," by Elizabeth Keith Morris. Music performed during Afternoon Tea at the Trocadero. "The Art of the Fancy Box," by Elise I. Spratt.
- 5.30-6.15.—CHILDREN'S CORNER: Miss Nobody Special. E. Kendal Taylor (Pianoforte Solos). L. G. M. of the *Daily Mail*.
- 6.40-6.55.—"The Boy Scout Movement," by The Rt. Hon. Lord HAMPTON. *S.B. from Birmingham.*
- 7.0.—TIME SIGNAL FROM BIG BEN. WEATHER FORECAST and 1ST GENERAL NEWS BULLETIN. *S.B. to all Stations.*
Mr. ALLEN S. WALKER: "Architecture: The Cathedrals of Canterbury, Oxford and Lincoln." *S.B. to all Stations.*
Talk by the Radio Society of Great Britain. *S.B. to all Stations.*
Local News.

Military Band Programme.

- FREDERIC LAKE (Tenor).
- MARCIA BOURN and LENA COPPING (Comedy Duets).
- LOIS BARKER and PERCY TARLING ("The Grumblers").
- THE "2LO" MILITARY BAND. Conducted by DAN GODFREY, Junr.
- 7.35. The Orchestra.
Overture, "Maximilian Robespierre" *Litolff*
Frederic Lake.
"The Mountain Lovers" *Squire* (1)
"Vale" *Russell*
The Orchestra.
Selection, "La Bohème" *Puccini*
Marcia Bourn and Lena Copping.
"Oh! Eva" *Warren* (31)
"When She's in Red" *Tubbush* (10)
"Why Did I Kiss That Girl?" *King* (31)
The Orchestra.
Suite, "Mascarade" ("Merchant of Venice")
Sullivan
Lois Barker and Percy Tarling
in
An Original Dual Entertainment.
Frederic Lake.
"O Mistress Mine" *Roger Quilter* (1)
"Nirvana" *Adams* (1)
The Orchestra.
Persian Dance, "Khovantschina"
Moussorgsky
Marcia Bourn and Lena Copping.
"All Alone" *Berlin* (7)
"Down On the Farm" *Dale* (31)
"Sure As You're Born" *Little* (9)
The Orchestra.
Selection, "Reminiscences of Ireland"
F. Godfrey

- 8.30.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and 2ND GENERAL NEWS BULLETIN. *S.B. to all Stations.*
Capt. P. P. ECKERSLEY: Technical Topics. *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.

- 3.30-4.30.—The Station Pianoforte Quintet. Enid Cruickshank (Soprano).
- 5.0-5.30.—WOMEN'S CORNER: Dentistry Talk No. 2. "Teeth, Health and Money." Ethel Williams (Contralto).

- 5.30-6.30.—CHILDREN'S CORNER: Mildred Forster. "Things We Don't Learn at School."
- 6.30-6.40.—"Teens' Corner: J. Ernest Jones, "Peeps Into the Past."
- 6.40-6.55.—"The Boy Scout Movement," by The Rt. Hon. Lord HAMPTON (Commissioner for Birmingham). *S.B. to other Stations.*
- 7.0-11.0.—Programme *S.B. from London.*

6BM BOURNEMOUTH. 385 M.

- 3.45-5.0.—Talk to Women: "Photography," by Miss Penrice. The "6BM" Quintet: Reginald S. Mout (Violin), Thomas E. Hlingworth (Cello), Charles Leeson (Piano), H. L. Gibson (Flute), R. G. Somers (Oboe).
- 5.0-5.55.—CHILDREN'S CORNER.
- 5.55-6.0.—Boy Scouts' and Girl Guides' Bulletins.
- 6.0-6.30.—Scholars' Half-Hour: "Some Treasures of the Earth," by W. J. Woodhouse, A.C.P.
- 6.30-6.39.—Farmers' Talk: "Seed Oats," by Mr. H. Hammond Dunn, F.L.S.
- 6.40-6.55.—"The Boy Scout Movement," by the Rt. Hon. Lord HAMPTON. *S.B. from Birmingham.*
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
Mr. ALLEN S. WALKER. *S.B. from London.*
Radio Society Talk. *S.B. from London.*
Local News.

THE WIRELESS ORCHESTRA:

- Conducted by
Capt. W. A. FEATHERSTONE,
PITT and MARKS (Entertainers).
H. J. SHERRING (Solo Banjo).
DOREEN MCCORMACK (Cockney Dialogues).
HERBERT SMITH (Baritone).
Orchestra.
7.35. "In a Persian Garden" ... *Liza Lehmann*
Pitt and Marks.
7.45. "Long Notes and Short Stories."
"Duets Up-to-Date."
8.0. H. J. Sherring.
"Jollity Fox-trot"
"Georgia Medley" } *Joe Morley*
Doreen McCormack.
8.5. "Christmas Bells" *Leslie Harris*
"Castles in the Air" *M. Broughton*
Orchestra.
8.15. "The Bing Boys on Broadway" *Ayer* (6)
Herbert Smith.
8.30. "The Skipper of the Mary Jane"
David Richard (1)
"A Sergeant of the Line"
W. H. Squire (1)
8.40. H. J. Sherring.
"Two Country Dances" *Cammeyer*
"The Gay Gossoon" *Vess Oesman*
Pitt and Marks.
8.45. "Long Notes and Short Stories."
"Duets Up-to-Date."
9.0. Orchestra.
Selection, "Toni" *Hirsch and Jones*
Doreen McCormack.
9.10. "Mrs. Greylock on the Play" } *R. C.*
"Praying for Papa" } *Buchanan*
Orchestra.
9.20. "A Lightning Switch" *Alford*
9.30-11.0.—Programme *S.B. from London.*

5WA CARDIFF. 351 M.

- 3.0-4.0.—Concert of Gramophone Records.
- 4.45-5.15.—"5WA'S" "FIVE O'CLOCKS."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.40-6.55.—Mr. Arthur Short, Deputy Camp Chief, will talk to Boy Scouts.
- 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.

- 6.40-6.55.—"The Boy Scout Movement," by The Rt. Hon. Lord HAMPTON. *S.B. from Birmingham.*
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
Mr. ALLEN S. WALKER. *S.B. from London.*
Radio Society Talk. *S.B. from London.*
Local News.

Vocal and Instrumental Hour.

- ANNE THURSFIELD (Contralto).
- GRANVILLE HILL (Solo Piano).
- 7.35. Anne Thursfield.
Selected.
- 7.45. Granville Hill.
Impromptu in A Flat *Schubert*
"Lento" ("Pierrot Pieces," No. 1) *Scott* (1)
"Gardens in the Rain" *Debussy*
- 8.0. Anne Thursfield.
Selected.
- 8.15. Granville Hill.
"Fantaisie-Impromptu" *Chopin*
"On Wings of Song" .. *Mendelssohn-Liszt*
"Caprice" *Paderewski*
- 8.30-9.30. HALLÉ CONCERT.
"THE DREAM OF GERONTIUS."
(*Elgar.*)
Relayed from the Free Trade Hall.
Conductor HAMILTON HARTY.
Gerontius JOHN COATES
The Angel IVY PHILLIPS
The Priest .. JOSEPH FARRINGTON
- 9.30-11.0.—Programme *S.B. from London.*

5NO NEWCASTLE. 400 M.

- 11.30-12.30.—Stella Rutherford (Soprano). Tilley's Restaurant Orchestra.
- 3.45-5.15.—Gertrude Pugh (Solo Pianoforte). Mary Barnes (Elocutionist). Mary Knyvett and Company in "Love Scenes from Shakespeare."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.30-6.40.—Boy Scouts' and Girl Guides' Bulletins.
- 6.40-6.55.—"The Boy Scout Movement," by The Rt. Hon. Lord HAMPTON. *S.B. from Birmingham.*
- 7.0.—WEATHER FORECAST and NEWS. *S.B. from London.*
Mr. ALLEN S. WALKER. *S.B. from London.*
Radio Society Talk. *S.B. from London.*
Local News.
WILLIAM MACREADY
assisted by
EDNA GODFREY-TURNER.
In his Recital
"SHAKESPEARE, SCENE AND STORY."
Incidental Music by
THE STATION ORCHESTRA.
Conductor, EDWARD CLARK.
- 7.35.—"HAMLET"—Hamlet and The Queen.
"MACBETH"—The Dagger and Sleep-walking Scenes.
"KING LEAR"—Lear, Goneril and Regan
"THE MERCHANT OF VENICE"—The "Bargain" Scene. Shylock and Tubal.
"HENRY V."—The Battle of Agincourt.
9.0. JOHN HUNTINGTON (Baritone).
"The Fishermen"
of England } ("The Rebel" } *Montague*
"Unavailing" } Maid" } *Phillips*
Little Lady"
"Day Dreams" *Sawyer*
Orchestra.
9.10. "Pique Dame" *Suppe*
John Huntington.
9.20. "If I Were" *Richards* (1)
"If Love's Content" ("Tom Jones")
German
"Little Grey Home in the West" .. *Lohs*
- 9.30-11.0.—Programme *S.B. from London.*
(Continued in col. 3, page 259.)

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 255.

WIRELESS PROGRAMME—FRIDAY (Feb. 6th.)

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

10.5. Leonard Gowings.
"To Daisies" *H. Quilter* (1)
"O Lovely Night" *London Ronald* (5)
10.15. A Short Entertainment by "US."
10.30.—Close down.

5NO NEWCASTLE. 400 M.

3.45-5.15.—Jack Mackintosh (Solo Cornet).
Martin Henderson (Solo Concertina).
James Mark (Solo Violin).
5.15-6.0.—CHILDREN'S CORNER.
6.0-6.30.—Scholars' Half-Hour: L. Orange,
B.Sc., F.I.C., M.B.E., "Poisons—Their
Use and Abuse."
6.40-6.55.—Ministry of Agriculture Bulletin.
S.B. from London.
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
PERCY SCHOLES. *S.B. from London.*
Local News.

By the Glowing Embers.

CARMEN HILL (Mezzo-Soprano).
ADELINA LEON (Solo Violoncello).
THE STATION ORCHESTRA.
Conductor, EDWARD CLARK.
7.30. Orchestra.
March, "Messengers' Love" ... *Borel-Clerc*
Selection, "A Country Girl" ... *Monckton*
7.50. Carmen Hill.
"Four by the Clock"
"To an Isle in the Water" *Mollinson*
"Loveliest of Trees" *Graham Peel*
"Soldier, I Wish You Well"
8.0. Adelina Leon.
Arioso *Bach*
Orientale *Cui*
Poem *Fibich*
Tarantelle *Popper*
8.10. Orchestra.
Suite from "Lakmé" *Delibes*
Terana; Rektah; Persian; Coda.
8.20. Carmen Hill.
Negro Spirituals *arr. Burleigh*
"Deep River"; "De Gospel Train";
"Swing Low, Sweet Chariot."
8.30. Adelina Leon.
Londonderry Air *arr. Morris*
Serenade *Hubert*
Dance *Squire*
8.45. Orchestra.
"Invitation to the Dance" *Weber*
9.0. TILLEY'S DANCE ORCHESTRA.
(ARTS BALL.)
Relayed from
The Grand Assembly Rooms, Barras Bridge.
9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
The Rt. Hon. F. D. ACLAND. *S.B. from*
London.
Local News.
Station Director's announcements of next
week's chief events.
10.0. Tilley's Dance Orchestra.
10.30.—Close down.

2BD ABERDEEN. 495 M.

3.30-5.0.—School Transmission: Mr. Harry
Townsend, M.A., on "Art." Mr. William
Swainson, "What Music Is and How to
Understand It." Mr. F. Mordaunt,
"Everyday Life in Athens." The Wire-
less Sextet. Feminine Topics.
5.15-6.0.—CHILDREN'S CORNER: Play,
"The Goose Girl," arranged by Flora
Cameron.
6.0-6.15.—Football Corner, conducted by Peter
Craigmyle.
6.20-6.30.—Advisory Corner, under the aus-
pices of the North of Scotland Agricul-
tural College, conducted by Don G.
Munro, B.Sc.
6.30-6.40.—Agricultural Notes.
6.40-6.55.—Mr. George Jarvis, F.B.E.A., Presi-
dent of the Aberdeen Esperanto Society,
on "Esperanto."
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
PERCY SCHOLES. *S.B. from London.*
Local News.

An Evening with the Composer, Purcell.
THE "2BD" OPERATIC CHOIR.
THE WIRELESS ORCHESTRA:
Conductor, ARTHUR COLLINGWOOD.
7.30. Orchestra.
Incidental Music to "Dido and Aeneas" (14)
8.0. Choir.
"KING ARTHUR."
Orchestra.
"King Richard the Second" (14)
9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
The Rt. Hon. F. D. ACLAND. *S.B. from*
London.
Local News.
10.0. Orchestra.
Selection, "The Naughty Princess"
Cuvillier
Selection, "The Kiss Call" *Caryl*
March, "Triumph of Right" ... *Lovell* (1)
10.30.—Close down.

5SC GLASGOW. 420 M.

3.30-4.0.—Broadcast to Schools.
4.0-5.10.—The Wireless Quartet. Elsie Roberts
(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 Bulletin.
S.B. from London.
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
PERCY SCHOLES. *S.B. from London.*
Local News.
7.30-8.20. Pianoforte Lecture Recital by
PROFESSOR TOVEY,
of Edinburgh University.
Fantasia and Fugue in C Major
Variations on "Our Silly Towns-
folk" *Mozart*
Fantasia in C Minor
Sonata in C Minor

Old Favourites.

THE STATION ORCHESTRA.
Conducted by
HERBERT A. CARRUTHERS.
SAM HEMPSALL (Tenor).
8.20. Orchestra.
Overture, "The Mikado" *Sullivan*
Symphony in G Major ("The Military")
Haydn
8.45. Sam Hempsall.
"My Dreams" *Tosti*
"Mary" *T. Richardson* (34)
"Eileen Alannah" *Old Irish*
8.57. Orchestra.
Suite, "The Miracle" *Humperdinck*
Prelude; Procession and Children's
Dance; Banquet Scene and Nuns'
Dance; March of the Army and Death
Melody; Christmas Scene and Finale,
Act I.
"La Cinquantaine" *Gabriel-Marie*
9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
The Rt. Hon. F. D. ACLAND. *S.B. from*
London.
Local News.
10.0. Sam Hempsall.
"Come into the Garden, Maud" ... *Bolfe*
"The Trumpeter" *J. Airlie Dix* (1)
"Nirvana" *Stephen Adams* (1)
10.12. Orchestra.
Overture, "Stradella" *Flotow*
Caucasian Sketches *Ippolitov-Ivanov*
"In the Mountains"; "In the Village";
"In the Mosque"; "Procession of the
Sirdar."
"Dancing Doll" *Poldini*
Selection, "The Street Singer"
Fraser-Simson
Three Dances, "Nell Gwyn" *German*
Country Dance; Pastoral Dance; Merry-
makers' Dance.
March, "Rustic Revels" *Lincke*
11.C.—Close down.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 255.

Thursday's Programme.

(Continued from page 257.)

2BD ABERDEEN. 495 M.

3.30-5.0.—The Wireless Sextet. Barrie Watt
(Soprano). Feminine Topics.
5.30-6.0.—CHILDREN'S CORNER.
6.15-6.30.—Boys' Brigade Bulletin: Col
Edward W. Watt, Battalion Vice-Presi-
dent, on "How the B.B. Helps the Boy."
6.40-6.55.—Mr. Charles Davidson, M.A., Topical
Talk. *S.B. to other Stations.*
7.0-7.30.—Programme *S.B. from London.*

Scottish Night.

CARMEN HILL (Soprano).
THE "2BD" REPERTORY
PLAYERS.
THE WIRELESS ORCHESTRA.
Orchestra.
7.35. Selection, "The Thistle" *Myddleton*
Carmen Hill.
7.45. "Robin Adair"
"The Bonnie Banks o' Loch Lomond" *Traditional*
"Jock o' Hazeldean" (25)
7.55. "JOHN McPHAIL."
A Play in Scots by Arthur Black.
Scene, A Modern Sitting Room.
Time, Present Day.
8.30. Orchestra.
March, "London Scottish" *Haines*
March, "The Bonnie Blue Bonnets" *de Ville*
Waltz, "Queen of the North" *Bucalossi*
8.50. Carmen Hill.
"The Auld Hoose"
"Annie Laurie" *Traditional* (25)
"Comin' Thro' the Rye"
9.0. Orchestra.
"Scottish Dances" *arr. Cole* (36)
9.15. Carmen Hill.
"The Four Maries"
"John Anderson, My Jo" *Traditional* (25)
9.30-11.0.—Programme *S.B. from London.*

5SC GLASGOW. 420 M.

3.30-4.50.—The Wireless Quartet. Reginald
Talbot (Baritone). Afternoon Topics.
5.15-6.0.—CHILDREN'S CORNER.
6.0-6.5.—Weather Forecast for Farmers.
6.40-6.55.—Mr. Charles Davidson. *S.B. from*
Aberdeen.
7.0-7.30.—Programme *S.B. from London.*
Programme S.B. to Edinburgh and Dundee.
7.35-8.0. ADELINA LEON (Violoncello
Recital).
Sonata *Henry Eccles—1670-1742*
Grave; Courante; Adagio; Allegro.
Air *Pergolesi*
Minuet *Becker*
"Auld Robin Gray" *Traditional*
Tarantelle *Squire*
Londonderry Air *O'Connor Morris*
Spanish Dance *Popper*

Entr'actes and Humour.

JEROME MURPHY (Entertainer).
THE STATION ORCHESTRA:
Conducted by
HERBERT A. CARRUTHERS.
8.0. Orchestra.
"Silver Fingers" *Mallory* (1)
"Tiny Tot"
Entr'actes *Fisher and Lotter*
"Golden Sand" *Finch*
"Valley of Roses" *Ancliffe*
8.20. Jerome Murphy.
Music and Humour.
8.35. Orchestra.
"Crushed Petals"
Marsden (8)
Entr'actes "An Evening Song"
Haydn Wood
"Mecca" *Howgill*
"Reconciliation" *Fletcher*
8.55. Jerome Murphy.
In Songs and Humour.
9.10. Orchestra.
"Dreaming" *Haydn Wood*
"Wedgwood Blue" *Ketchbey*
Entr'actes "Gallantry" *Ketchbey*
"The B'Hoys of Tipperary"
Ameri
9.30-11.0.—Programme *S.B. from London.*

WIRELESS PROGRAMME—SATURDAY (Feb. 7th.)

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

MABEL WARRENDER.
 "The Eldest Miss Larkins" ("David Copperfield")
 Harry Hopewell.
 "Ralph's Ramble to London"
arr. Lane Wilson
 "The Lass of Richmond Hill".....Hook
 "The Violet Seller".....Byrno
 "Turn Again, Dick Whittington"
J. EWART TOMLIN.
 "David Copperfield and the Waiter"
 ("David Copperfield")
 "SAIREY GAMP and BETSY PRIG."
 ("Martin Chuzzlewit")
 Sairey Gamp.....MABEL WARRENDER
 Betsy Prig.....KATE BROOKES
 HARRY HOPEWELL (Baritone).
 "Wapping Old Stairs".....J. Percy
 "Bailiff's Daughter of Islington"
Traditional
 "The Jolly Young Waterman".....Dibdin
 9.30-12.0.—Programme S.B. from London.

5NO NEWCASTLE. 400 M
 3.45-5.15.—Norah Allison (Soprano). The Station Septet. Norah Balls. Monologue, "The Gentle Art of Shopping," by Ernest Denny.
 5.15-6.0.—CHILDREN'S CORNER.
 6.50-6.55.—Poultry Notes.
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Mr. JOHN KENMIR, "Football."
 Local News.

A Winter Night's Cheer.
 KATHLYN BIRCH (Soprano).
 ST. HILDA COLLIERY BAND:
 Conductor, JAMES OLIVER.
 ANDREW MAGNAY (Tyneside Entertainer).
 F. KEMP JORDAN (Baritone).
 Band.
 7.30. Overture, "Martha".....Flotow
 Romance, "Pierrot and Pierrette" Rimmer
 Andrew Magnay.
 7.45. "Oor Geordie, in Song and Story"
Joe Wilson
 8.0. F. Kemp Jordan.
 "The Tinker's Song".....Wilson (1)
 "Old Barty".....Grant (1)
 8.10. Band.
 Cornet Solo, "The Nightingale".....Moss
 (Master ALWYN TEASDALE.)
 Trombone Solo, "The Winning Spurt"
Clough
 (HAROLD LAYCOCK.)
 Waltz, "What's Become of Sally?"
Milton Ager (9)

8.20. Kathlyn Birch.
 "Dream Daddy"
Louis Herscher and G. Keeser (9)
 "Sabara" (Fox-trot) Horatio Nicholls (9)
 Andrew Magnay.
 8.35. "Jackie Robison Talks".....W. J. Robson
 Band.
 8.45. Three Dances from "Henry VIII" German
 Fox-trot, "Sure As You're Born"
Little, Gillespie, and Shay (9)
 Kathlyn Birch.
 9.0. "Like the Last Rose of Summer"
Gilbert and Lynton (9)
 "Nightingale".....Brockman (9)
 "Dear Old Songs".....Elvoin Hedges
 F. Kemp Jordan.
 9.10. "A Sergeant of the Line".....Squire (1)
 "A Song of the North Wind".....Head
 "Bonnie George Campbell".....Keel
 Band.
 9.20. The Unfinished Symphony (1st Movement)
Schubert
 9.30-12.0.—Programme S.B. from London.

2BD ABERDEEN. 495 M.
 3.30-5.0.—The Wireless Sextet. Molly Richardson (Soprano). Feminine Topics.
 5.30-6.0.—CHILDREN'S CORNER: Songs by the Uncles.
 6.15-6.30.—This Week's Interesting Anniversary: "The Russo-Japanese War,"

February 7th, 1904." (Prepared by John Sparke Kirkland.)
 6.40-6.55.—Royal Horticultural Society of Aberdeen: James Duncan on "The Magnio Moth and Its Effects on the Black Currant, Red Currant, and Gooseberry Bushes."
 7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
 Capt. H. G. MANSFIELD. *S.B. from London.* Local News.

Everybody's Programme.
 ADELINA LEON (Solo Violoncello).
 WINIFRED ANDERSON (Solo Pianoforte).
 ALICE THOMSON (Contralto).
 THE WIRELESS ORCHESTRA.
 Orchestra.
 7.30. Overture, "Athalia".....Mendelssohn
 Alice Thomson.
 7.40. "A Little Love, A Little Kiss"....Silesu
 "Until".....Sanderson (1)
 7.50. Adelina Leon.
 "Scotch Airs".....Moffat
 "Allegretto".....Wolstenholme (11)
 "Valse Triste".....Sibelius
 "Serenade".....Herbert
 8.5. Winifred Anderson.
 Polacca in E.....Weber
 "Invitation to the Dance"
 Orchestra.
 8.20. Strathspeys and Reels.....Kerr (36)
 Alice Thomson.
 8.35. Four Indian Love Lyrics
Woodforde-Finden (1)
 8.45. Adelina Leon.
 "Drink to Me Only"
 "Country Dance".....Squire

"The Little Red Lark".....Hahn
 Tarantella.....Popper
 9.0. Winifred Anderson.
 Study on Black Keys.....Palmgren
 Symphony.....Somervell
 9.15. Alice Thomson.
 "Good-Bye"
 "Parted".....Tosti
 9.30-12.0.—Programme S.B. from London.

55C GLASGOW. 420 M
 3.30-4.50.—The Wireless Quartet. William Gilchrist (Tenor). Afternoon Topics.
 5.15-6.0.—CHILDREN'S CORNER: Miss Clarke will tell you some Stories.
 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.
Dance Night.
S.B. to Dundee.
OLD AND NEW FAVOURITES.
 THE STATION ORCHESTRA:
 Conducted by ISAAC LOSOWSKY.
 DANIEL SEYMOUR (Tenor)
 will sing the Choruses and Vocal Numbers.
 Orchestra.
 7.30. Dance Music.
 8.25.—Something New! (Our Weekly Cartoon by "Blob.")
 Orchestra.
 8.30. Dance Music.
 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 255.

EVENTS OF THE WEEK.

SUNDAY, February 1st.

LONDON and "5XX," 3.0.—The Band of H.M. Royal Air Force.
 LONDON and "5XX," 9.0.—De Groot and the Piccadilly Orchestra, relayed from the Piccadilly Hotel. S.B. to other Stations.
 BIRMINGHAM, 8.30.—First Special Radio Service—An Act of Worship.
 MANCHESTER, 3.0.—Chamber Music and Song.
 NEWCASTLE, 7.30.—Philharmonic Concert, relayed from the Palace Theatre.
 GLASGOW, 9.0.—Recital by the Bach Choir.
 ABERDEEN, 3.0.—Bach Afternoon—HAROLD SAMUEL (Solo Pianoforte).

MONDAY, February 2nd.

LONDON and "5XX," 7.35.—Comic Opera Programme.
 BOURNEMOUTH, 7.35.—"Bournemouth Calling Italy."
 MANCHESTER, 7.35.—Light Symphony Concert.
 NEWCASTLE, 7.35.—Variety Night.
 BELFAST, 7.35.—Welsh Night.

TUESDAY, February 3rd.

"5XX," 7.30.—Plays and Chamber Music.
 LONDON, 7.30.—Ballad Concert—Carrie Tubb. S.B. to all Stations.

The First Night of the Musical Play, "Love's Prisoner," relayed from the Adelphi Theatre, London. S.B. to all Stations (10.0-10.40.).

GLASGOW, 8.0.—The Scottish Orchestra and Choir. S.B. to Edinburgh and Dundee.

WEDNESDAY, February 4th.

BIRMINGHAM, 7.30.—Chamber Music.
 BOURNEMOUTH, 8.0.—Winter Gardens Night.
 CARDIFF, 7.30.—Operatic Evening.
 BELFAST, 7.30.—Symphony Concert.

THURSDAY, February 5th.

"5XX," 7.30. "The Dream of Gerontius," relayed from the Free Trade Hall, Manchester. Conductor, HAMILTON HARTY.
 LONDON, 7.35.—Military band Programme. S.B. to other Stations.
 NEWCASTLE, 7.35.—"Shakespeare, Scene and Story."
 ABERDEEN, 7.35.—Scottish Night.

FRIDAY, February 6th.

LONDON and "5XX," 7.30.—Popular Classics.
 NEWCASTLE, 7.30.—"By the Glowing Embers."
 ABERDEEN, 7.30.—An Evening with the Composer Purcell.
 GLASGOW, 8.20.—Old Favourites.
 BELFAST, 7.30.—Belfast Philharmonic Society Concert, relayed from the Ulster Hall.
 NOTTINGHAM, 7.30.—"An Elizabethan Evening."

SATURDAY, February 7th.

BOURNEMOUTH and "5XX," 7.30.—"The Golden Legend."
 BIRMINGHAM, 7.30.—The Lord Mayor's Distress Fund Concert, relayed from the Town Hall.
 CARDIFF, 7.30.—"The Spirit of Dickens."
 MANCHESTER, 7.30.—Dickens Birthday Programme.

This remarkable reception of the U.S. Station at Cambridge (MASS.) in Coventry is further proof of



super-efficiency

Although "conditions were not good"—
He heard "perfectly at loud speaker strength" on his

A.J.S. 4-VALVE RECEIVER

C Mr. S. Edward Bacon, Steward of the Coventry and County Club, received word by cable that his brother, a vocalist, would broadcast from the American Station W.B.Z. (Cambridge, Mass.) on December 29th. Mr. Bacon, using a 4-valve A.J.S. Receiver, promptly got in touch from Coventry, and "heard both songs perfectly at loud-speaker strength."

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 10 0).

A.J.S. LOUD SPEAKERS.

Accurately proportioned non-resonant horn, giving correct acoustic properties. True reproduction and extreme sensitivity without distortion. With Metal horn and plated fittings, £4 15 0. With Oak or Mahogany horn and plated fittings, £5 to 0.

Ask the nearest A.J.S. dealer about these and other A.J.S. Instruments, including the 2, 3, and 4-valve "Desk type" Receivers, the "Unit System" 4-valve Cabinet, and the A.J.S. 4-valve Pedestal Cabinet. Illustrated List free on request

RADIO SECRET REVEALED.

Story of an Impromptu Concert From U.S.

VOCALIST'S DESIRE.

To Sing to Brother at Coventry.

From a Gazette Correspondent.

COVENTRY, Thursday. To hear his brother's voice coming to him in song across the wide space of the Atlantic has been the unique experience of Mr. S. Edward Bacon, steward of the Coventry and County Club, Coventry.

Listeners who were successful in getting into touch on Monday night with the American wireless station W.B.Z. at Cambridge (Mass.), were interested to hear the announcement that a short concert would be given for the benefit of one of the artist's relatives who lives in Coventry, England.

THE EXPLANATION.

The explanation is that one of the singers was Mr. Henry G. Bacon, a student of the Massachusetts Institute of Technology, and in his desire that his brother should hear him sing, he had cabled to him at Coventry the time the concert would begin.

Mr. Henry Bacon sang two songs, "John Peel" and "Lore, I am lonely," both of which Mr. Edward Bacon heard perfectly.

THURSDAY, JANUARY 29
VOICE ACROSS THE SEA.

Coventry Man in America

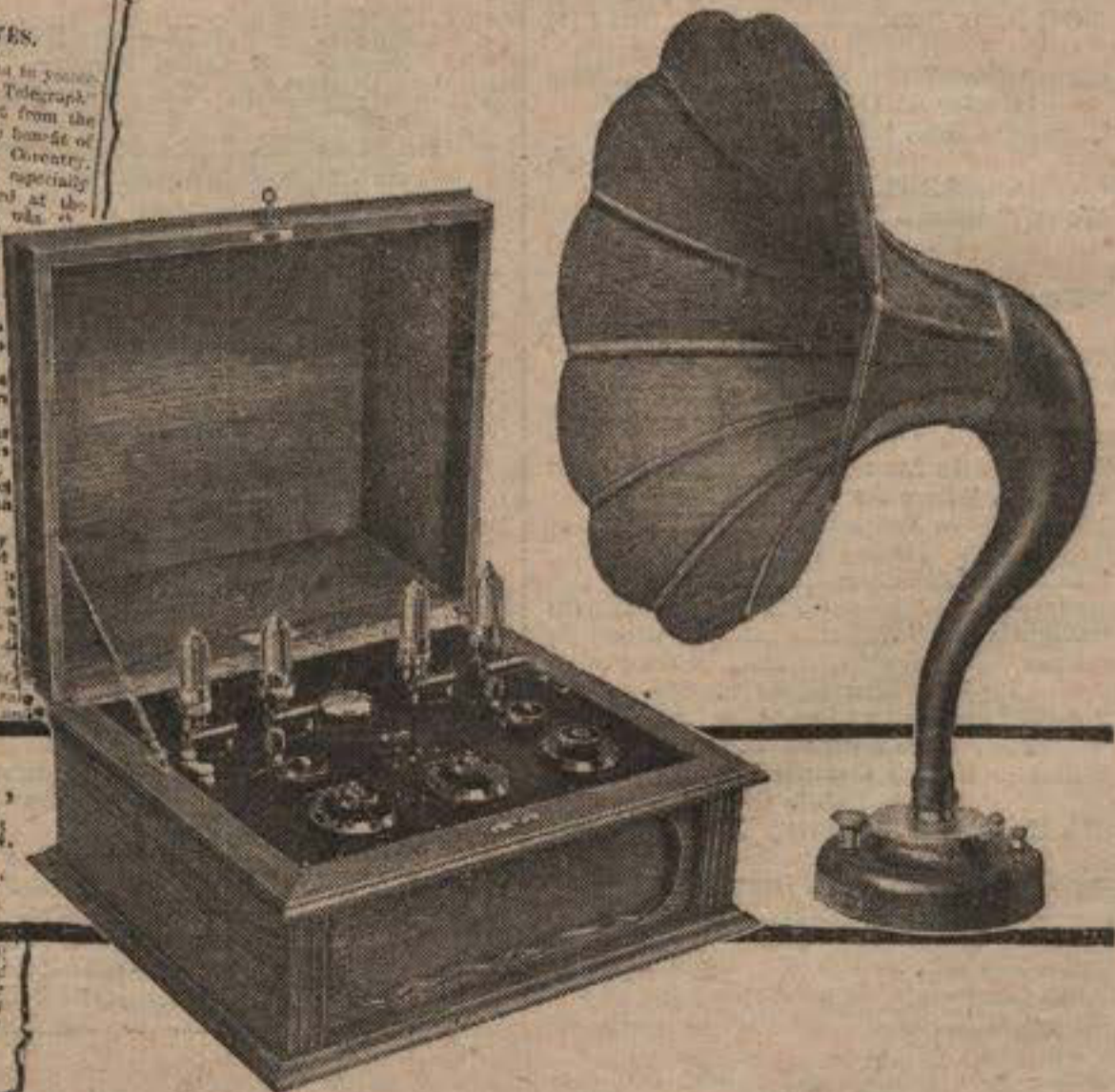
SINGS TO RELATIVES.

The statement by a correspondent in yesterday's issue of the "Midland Daily Telegraph" that he had heard a concert broadcast from the American station W.B.Z. for the benefit of one of their artist's relatives in Coventry, was read with interest, especially by Mr. S. Edward Bacon, steward of the Coventry and County Club, who was referred to.

I noticed in last evening's "Telegraph" in the Coventry column, a letter from a correspondent to a concert he had heard from the American Wireless Station at Cambridge, Massachusetts, on Monday night, January 27, to "one of the artist's relatives in Coventry, England." My brother, Mr. S. Edward Bacon, steward of the Coventry and County Club, Coventry, U.S.A., was the artist referred to. He is a student of the Massachusetts Institute of Technology, and in his desire that his brother should hear him sing, he had cabled to him at Coventry the time the concert would begin.

A. J. STEVENS & CO. (1914) LTD., WIRELESS BRANCH, WOLVERHAMPTON.

Phone: 1550; Wireless Call Sign: 5RI; Grams: "Reception, Wolverhampton."



...down for a minute, and that they were...
...switch through to a hockey...
...match which was to be played at eight...
...o'clock between the Hamilton players and...
...a team selected from the Canadian...
...National Hockey League.
...I picked up my tin, and heard the...
...at once that Mr.

Do You Understand Bach?

How to Appreciate His Music. By J. D. H. Dickson.*



J. S. BACH.

I HAVE never been able to understand why a public that can assimilate strong doses of Mozart, Beethoven, Brahms, César Franck, Wagner, Strauss, not to mention the more modern composers, should be afraid of Bach, the old Leipzig Cantor. But I think it is undeniable that there are still people to whom Bach is a bugbear and who would cordially agree with the old Scotsman that "Anything by ordinary ugly is sure to be Bach." I shall endeavour to explain what I think may be the reasons for this popular fallacy, and why I hope that broadcasting may be a means of exploding it.

Let me briefly review the position of matters at Bach's death in 1750. J. S. Bach came of an enormous family of Bachs, most of whom were musicians, and in him were concentrated all the highest qualities of his race. More than that, he was the culmination of his period, just as, in the drama, Shakespeare was the culmination of the Elizabethan age. Though his works contain the germs of all music since his time—though as Schumann said: "To him music owes almost as great a debt as a religion owes to its founder," though his claim to be the first of the Romanticists is admitted—he was, as it were, the final summing up of the great period of polyphonic music.

Masterpieces That Were Never Written.

Even during his lifetime, art had received an impetus in a new direction, and though it is a mistake to think that music or any other art can be neatly pigeon-holed under periods, Bach's death, broadly speaking, may be said to mark the final break away from the older style. Men no longer called for music woven of many parts or strands like Gothic traceries, which is polyphonic music, but for the single line of melody relieved against a background of harmony.

This important fact mainly accounts for the almost complete oblivion which overtook Bach's works on his death. No doubt, a contributory cause was, that in Bach's day, musicians were held in little esteem unless the works they performed were of their own composition. Organists generally improvised their own fugues and fantasias, and Bach's greatest organ works are said never to have been written down. Moreover, as Schweitzer points out, the rationalism of the eighteenth century was curiously lacking in the historical sense.

A Great Performer.

The art of the past was considered antiquated, or, at all events, required re-stating in terms of the present. I do not wish to suggest that a sturdy belief in the present is not a sign of health and vigour in any generation. Indeed, I am not sure that the appalling accumulation of historical facts since history emerged from the region of romance into the domain of science, is not one of the blights of the present day. But, unfortunately, in Bach's time, there were no real facilities for printing music, no gramophone records of performance, and the self-confidence of the generation which succeeded him might quite well have resulted in the loss to posterity of the greater part of his works. As it was, he was remembered merely as a

* In a Talk from Edinburgh.

great performer, and Burney, the English Historian of Music, records that when he was in Hamburg, C. P. E. Bach, who was a son of John Sebastian and with whom Burney spent most of his time, never played so much as one note of his father's music during his visit.

Time's Revenge.

Thus, for more than half a century, Bach's works—mostly in manuscript—a few only engraved—lay forgotten. But slowly the whirligig of time brought in its revenge. In 1802, Forkel published his monograph on Bach and therein, for the first time, Bach was hailed as one of the divinities.

In 1829, exactly 100 years after the first performance in Leipzig, a performance of the St. Matthew Passion, under the young Mendelssohn, finally woke up the world to the supreme greatness of Bach's work.

But the long neglect of nearly a century now began to tell. Bach's MSS—which he had bequeathed equally to his sons, Carl Philipp Emanuel and William Friedemann—had been, to some extent, dispersed, the language of Bach—perfectly intelligible to the plain man of his day—had fallen out of the common currency; many of the instruments in everyday use at his death had become obsolete, and the traditions and technique of performance had been forgotten.

A Jungle of Jargon.

The amazing resurrection of Bach's music in the early decades of the nineteenth century is not to be explained by the mere complexity of the works then revived, nor by the astonishing things the critics and commentators have discovered in them. If that had been all, the whole thing would have been a mere flash in the pan. What carried all who heard them by storm was the profoundly moving human quality of the music.

But, somehow, we cannot clear our way through the jungle of critical jargon that seems to bar us from the music. So often before the wretched amateur can be allowed to hear it, he must listen to a lecture on this, and the other thing, all calculated, I fear, to bewilder him rather than illuminate the matter in hand! No wonder Bach becomes a bugbear!

The Way of Understanding.

My point is that the audience has as much to do with all the critical work that is essential to the making of a satisfactory performance of Bach as a sick man has to do with the details of the Pharmacopœia. The knowledge necessary for performance may be conveniently left to the conductor or artists involved.

Understanding of Bach's language will come by familiarity with it. To talk about his idiom for five minutes before you proceed to inflict a performance on your audience is about as useful as to discuss the declension of Greek nouns for five minutes before a performance of *Medea* in the original. One has to saturate oneself in Bach's works, as the would-be writer of heroic verse used to be told at school to saturate himself in Virgil—not with a notebook jotting down Virgilian tags, but so that the process of assimilation is sub-conscious. Thus, one will come to know Bach's language as one knows one's native tongue, to be able to think and feel in it without any knowledge of its syntax or grammar.

The best way to achieve this intimacy is to play or sing the works yourself, to get on to the platform instead of sitting in the audience. The next best way is to hear his works as often as possible.

(On Sunday, February 1st, Aberdeen and Glasgow are having programmes specially devoted to Bach's music.)

Miner Musicians.

Brass Band Romances.

TO most listeners, probably the best-known colliery band is the St. Hilda, which will broadcast from Newcastle on Saturday, February 7th. Composed of members of the St. Hilda Lodge of the Durham Miners' Association, the band was started in 1903 by four musicians from another Durham colliery. Since then it has won no fewer than four times the thousand-guineas trophy annually competed for at the Crystal Palace, as well as a long list of minor events in the brass band calendar.

Perhaps the best compliment ever paid this remarkable band was that uttered by a high official of the War Office when, after a festival at Newcastle, he exclaimed to the bandmaster: "You are a brass band with the brass taken out!"

Bedstead as Music Stand.

Music played by the St. Hilda band undoubtedly has a quality that is peculiarly its own. And the secret? Keeness. The St. Hilda bandmen are intensely enthusiastic; no musicians in the world, excepting possibly a few "star" pianists, devote more hours a day to the perfection of their art.

But if the St. Hilda Band holds the coveted blue riband of the brass band world, there are other bands that may one day equal, if not eclipse, its achievement. Irwell Springs Band, composed of cotton operatives from Bacup, has already lifted the trophy on three occasions. This band was established in a back bedroom by a small group of enthusiasts who were content at first with a bedstead for their music stand! So poorly were they supported that for several years they could not command the wherewithal to pay their conductor's modest charges. But money came in fast when, after many heart-breaking experiences, they won the championship.

Lean Days!

The famous Black Dyke Band, which for a number of years divided honours with the even more widely known Besses o' th' Barn Band, is composed of woollen mill workers hailing from the district of Queensbury, near Bradford. They, too, had their lean days, and there were moments in the history of both when it seemed that they must inevitably "go under." But that catastrophe has befallen very few of these workers' bands, in spite of the inauspicious beginnings of most of them. The fact goes to show that in the North a love of music is woven into the very fibre of the people.

Another noted name in the annals of these bands is Wingates Temperance, whose members belong to the district between Bolton and Wigan. It consists almost entirely of men who work in the mine. When it originated, away back in the 'eighties, the band had a hard struggle for existence, until some bright spirit conceived the idea of getting up a bazaar "in aid." As a sort of thank-offering, the band beat the Besses o' th' Barn, and, in doing so, jumped in a day from obscurity to fame. Their leading cornet-player at one championship contest, which they won, was a lad of only fifteen!

Taking No Risks.

The name of Kingston Mills, too, cannot be left out of any record of brass band achievements. This band was set on a firm footing after some years of hardship by a local enthusiast who encouraged its members to meet for practice at his house, at great inconvenience to himself. Of one of the best-known of its conductors, John Gladney, it is said that he was never known to take a risk. At the Belle Vue band competition, in Manchester, he warded off temptation by shutting his performers in a room near the contest hall and keeping them supplied with coffee, until the time came for them to appear on the platform.

R. P.

A Father Lectures the "Uncles." 99

Helpful Hints for the Children's Hour. By S. R. LITTLEWOOD.

IMMENSE admiration for the wonderful spirit and skill and insight with which our "uncles" and "aunts" manage to create every afternoon an entertainment that thousands upon thousands of children of every class and condition can enjoy and look forward to—this is, of course, the first feeling one wants to express. The way they manage to turn up something fresh every afternoon, and to "put it over" as cheerily and gaily as they do, amazes and delights all of us (and we are not all by any means children) who gather in the "Children's Corner."

It seems only right, however, that I should try to think of a few things which might help to make the children's hour even jollier than it is already. It is not so much I myself who make the suggestions. The really guilty people are various small members of a large family, all of whom are keen listeners, and view matters with the ripe experience of ages ranging from nine to fourteen, or thereabouts.

The "Little Dear" Attitude.

Speaking, then, as a father, I hope I shall not be misunderstood if I say that the kiddies' first criticism is—in spite of the admiration I have mentioned—that there is just a wee bit too much "uncle" and "aunt." It is all very well to have an "uncle" coming in once in a way—above all, if he tells us where to find those nice presents. But we do not want everybody to be an "uncle" or "aunt." We want a whole family the other end of the 'phone—father, mother, and, above all, brothers and sisters and cousins who are children themselves.

This last plea I find almost universal. As things are, apart from a very occasional tea-party, the entertainment is practically altogether by grown-ups as grown-ups. Moreover, it is by grown-ups who have not got their child-audience in front of them. It is inevitable that under these circumstances a sort of conventional "little-dears" attitude comes into being. To me, it is astonishing that our "uncles" and "aunts" of the moment have not got more of it. But even with them just a hint is there.

"Back-chat" that Boro.

Take the "back-chat," for instance. Being, as they are, delightful people anxious to please each other and everybody, they are always complimentary. "How interesting!" "Oh, I am so sorry that is over!" "Can't you do it again?" These are the sort of phrases we listen to. I have heard them bandied about on occasions when nothing but the most biting irony could have justified them.

I heard the other day a lecture—or, apparently, a reading—on the history of a certain product, with dates of discovery, methods of preparation and all, which an "aunt" said she thought "very interesting." I guessed—rightly

or wrongly—from the way she said it, that she felt nothing of the kind.

We who are fathers know perfectly well that these polite insincerities are not the children's way at all. "Absolutely rotten!" "Do shut up, Dad!" This is the real children's "back-chat." And this is what the people who have the best means of finding out on the spot what children like—I mean the comedians of the seaside concert party—always go in for. There is no getting away from it, old-fashioned "slapstick" is what children love and laugh over. If it cannot be got on to the wireless physically, it must be got there verbally.

What would amuse them, I fancy, just as things are, would be a really good quarrel—all in the best humour, but brisk and personal and vigorous—between "uncle" and "aunt." It would need dramatizing, of course; but, then, everything that is worth listening to has to be dramatized one way or another.

A Wireless Jackie Coogan.

As to the finding of children's voices, I can quite understand that it would be extremely difficult to get real children who could broadcast themselves to acceptable effect. The momentary young visitor to the studio is of little use. Children would have to be specially trained—just as they are for the stage or the screen. But they appear on both of these, and here and there have been discovered children of genius. It seems to me by no means beyond the limits of possibility that we might some day find a Jackie Coogan of the wireless.

While we are waiting for this, surely there would be some means of arranging at any rate a pretended tea-party, on far more intimate and picturesque lines than we have now. Imagination is needed. Not so much the imagination of the poet, as the imagination of the "quick comedian." In pantomime—which is not to be despised, for the children of more

than a century have loved it—grown-up men and women have managed to keep children screaming with delight hour after hour and day after day by just pretending to be children.

I know that all sorts of people would still be making out that the tradition which has lived on from Dan Leno and Herbert Campbell to Will Evans, Stanley Lupino, and Billy Merson, is a vulgar one. It has not seemed so to the children. We who are fathers know that there is something about the genuine clown—not necessarily one in harlequinade dress, which has ceased to have very much meaning; but any comedian who has to assume frank ignorance and unashamed simplicity—which appeals instantly to children.

He appeals to their sympathies more than any "uncle" could hope to do discussing with an "aunt," however cheerfully, what they shall "give the children." There is nothing, after all, that children like so much as something which makes them feel that a grown-up is actually enduring the distresses of childhood, and being, perhaps, occasionally rewarded by its joys. To amuse a child, one must become a child.

The Music Children Like.

So, too, with the music. There are some charming little minuets and mazurkas and pretty delicate snatches of all sorts that I hear tinkled on the piano from time to time, and, of course, the desire to give children a taste for classical rhythms at the earliest possible age is thoroughly to be commended. It is in noticeably direct contrast to the leanings of that large section of their grown-up brothers and sisters who are so intent upon hearing the very latest jazz tunes.

But I am sorry to say that my experience of children's taste is in music very much what it is in dialogue. They like a pretty, graceful little tune now and again. But jollity and sheer bravado have an astonishingly large juvenile public. Some of the very nicest children are by no means scornful of the popular music-hall songs of the moment—most of which are about as childish as anything specially intended for the cradle could be.

Too Many Fairy Stories?

It seems dreadfully Philistine to say so, but I am even in doubt whether we have not just a little too much of the fairies. An eternity of fairy-stories—all of them told in the same rather patronizing tone of voice, and all of them much on the same lines, and not all of them masterpieces—does tend to get a trifle pallid.

In short, what I feel our "children's-cornerists" might remember a little more than they do, is that children are not all little angels waiting for the light of knowledge to come to them; but that the vast majority are lively little rascals, full of fun, and many of them blessed with a double dose of original sin.

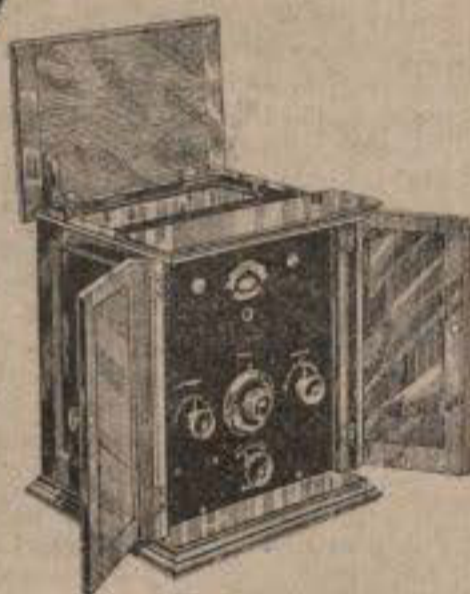


"What do you think of that, my boy—Aberdeen on a one-valve set!"
 "That's nothing! My brother gets New York on two."
 "You don't say so! Where does he live?"
 "New York."

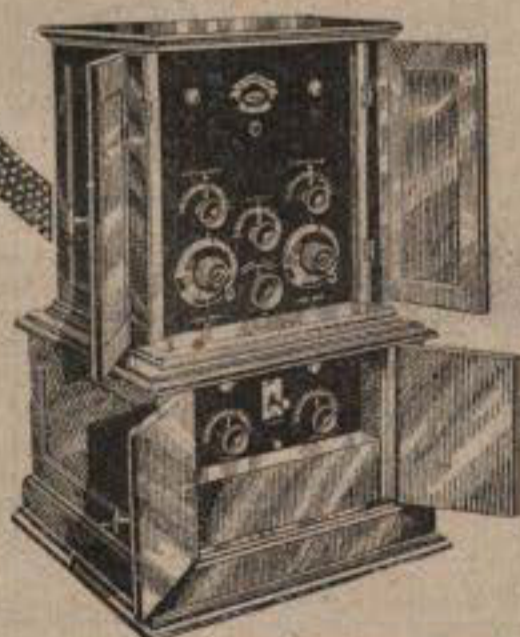
Sparta Radio Receivers

CABINET MODELS

SPARTA Sectional Cabinet Radio Receivers strike a new note in radio equipment. The requirements of the average operator—extreme simplicity of control and real accessibility—have been secured without sacrificing any of the features necessary for obtaining first-class results. The sections form complete units in themselves, and can be purchased separately or together, as desired. The three sections, Receiver, Amplifier and Pedestal, form a handsome cabinet, in mahogany piano finish, attractive in appearance and ranking amongst the highest grade of wireless equipment.



This shows the Sparta Model "A" Receiver with lid opened to give access to high-tension battery and plug-in coils.



This illustrates the Sparta Model "B" High-Frequency Receiver, standing on a Model "C" Amplifier.

SPARTA TWO-VALVE LOW-FREQUENCY RECEIVER. Model A.

Complete with two tuning coils and 66-volt high-tension Battery.

Price, 13 Guineas.

SPARTA TWO-VALVE HIGH-FREQUENCY RECEIVER. Model B.

Complete with three tuning coils and 66-volt high-tension Battery.

Price, 14 Guineas.

SPARTA TWO-VALVE POWER AMPLIFIER. Model C.

Complete with two grid bias batteries, and three 66-volt high-tension Batteries.

Price, 16 Guineas.

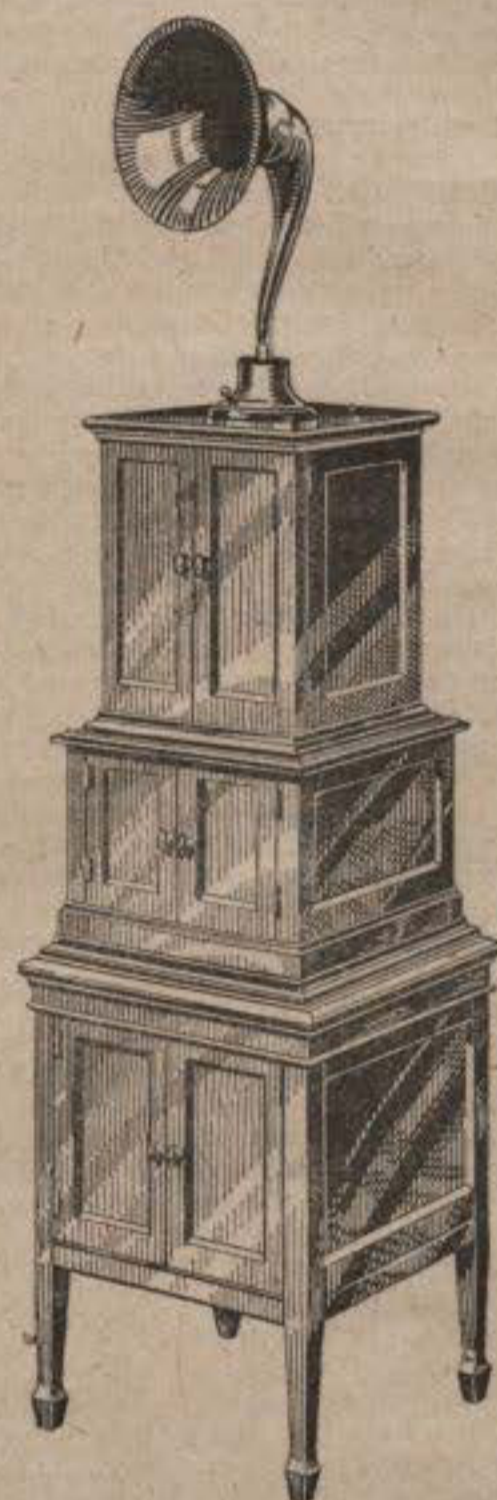
SPARTA ONE-VALVE LOW-FREQUENCY AMPLIFIER. Model D.

Price, £11 13s. 6d.

SPARTA BATTERY CABINET. Model E.

For accommodating low-tension batteries.

Price, £4 17s. 6d.



The above shows a Sparta Sectional Cabinet, consisting of Receiver, Amplifier and battery cabinet, their combined height is 4 ft.—a Little Sparta Loud Speaker, price 55/-, is shown on the receiver.

Simplicity—

You will be at home with the Sparta L.F. Receiver immediately. The extreme simplicity of the single tuning control and the ease with which any wave length can be received with suitable plug-in coils will appeal to you, as also the individual filament control which enables each valve to give you its best result. The High Frequency Set gives better reception from long-distance stations than the low-frequency set. A special stabiliser is provided to facilitate control. The Amplifier, as an addition to the receiver, will give a larger volume without distortion, and one or both valves can be used by a simple switch movement. The sections are inter-connected by cords and plugs at the back, fitting into marked sockets, which render manipulation easy.

FULLER'S UNITED ELECTRIC WORKS, LTD.

Makers of the famous Sparta Radio Apparatus.
CHADWELL HEATH, ESSEX.

Telephone: Ilford 1200.

Telegrams: "Fuller, Chadwell Heath."

London Depot: 58, High Street, W.C.2.

Dundee Programme.

2DE 331 M.

Week Beginning Sunday, February 1st.

SUNDAY, February 1st.

3.0-5.30.—Programme S.B. from London.
8.30-9.0.—Service, conducted by the Rev. GEORGE McWILLIAM, B.D., of Clepington Church, Dundee.

9.0-10.30.—Programme S.B. from London.

MONDAY, February 2nd.

2.30-3.30.—Kinnaird Hall Picture House Orchestra.

5.0-5.15.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
7.0-10.30.—Programme S.B. from Glasgow.

TUESDAY, February 3rd.

5.15-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Boy Scouts' Talk.
7.0-8.0.—Programme S.B. from London.
8.0-8.20.—Programme S.B. from Glasgow.
8.20-12.0.—Programme S.B. from London.

WEDNESDAY, February 4th.

3.30-4.30.—Kinnaird Hall Picture House Orchestra.

4.30-5.0.—Organ Recital.
5.0-5.15.—WOMEN'S TOPICS.
5.15-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Boys' Brigade Talk.
7.0-10.30.—Programme S.B. from Glasgow.

THURSDAY, February 5th.

4.30-5.0. } New Gramophone Records.
6.0-6.30. }
5.15-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Mr. Charles Davidson. S.B. from Aberdeen.
7.0-11.0.—Programme S.B. from Glasgow.

FRIDAY, February 6th.

3.30-4.30.—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 Bulletin. S.B. from London.
7.0.—WEATHER FORECAST and NEWS. S.B. from London.
PERCY SCHOLES. S.B. from London. Local News.

Dramatic Night.

WILLIAM MACKREADY.
EDNA GODFREY-TURNER.
P. P. BELL (Entertainer).

7.30-8.30. "DAVID GARRICK."
8.30-8.45. P. P. Bell.
"Kato Mackay" }
"Oor Wee Jack" } Bell
"The Cook" }
8.45-9.15. "MARRIED LIFE."
9.15-9.30. P. P. Bell.

"Inverness" }
"Ma Bonnie Hielin Laddie" } Bell
"Batchelor" }
9.30.—WEATHER FORECAST and NEWS. S.B. from London.

The Rt. Hon. F. D. ACLAND. S.B. from London.
Station Director's Talk.
Local News.

10.0-10.30. "THE GULF BETWEEN."
10.30.—Close down.

SATURDAY, February 7th.

5.15-6.0.—CHILDREN'S CORNER.
7.0-12.0.—Programme S.B. from Glasgow.

Hull Programme.

(Continued from column 3.)

10.20. David Milner.
"Sweet and Low" Barnby (11)
"Home, Sweet Home" arr. Ellis
"A Dance Medley" arr. Milner
10.30.—Close down.

SATURDAY, February 7th.

3.0-3.30. } Claude Duval's Dance Orchestra.
4.0-4.30. }
3.30-4.0.—WOMEN'S HALF-HOUR.
7.0.—WEATHER FORECAST and NEWS. S.B. from London.
Mr. W. PERCIVAL WESTELL, F.L.S.
"The Song of the Thrush."
Local News.
7.30-12.0.—Programme S.B. from London.

Edinburgh Programme.

2EH 328 M.

Week Beginning Sunday, February 1st.

SUNDAY, February 1st.

3.0-5.30.—Programme S.B. from London.
8.30-9.0.—Religious Service conducted by the Rev. Canon GEOFFREY GORDON, of St. John's Episcopal Church, with the assistance of the Choir under the Direction of RALPH T. LANGDON.

9.0-10.30.—Programme S.B. from London.

MONDAY, February 2nd.

3.0-4.0.—The Station Pianoforte Trio.
5.0-6.0.—CHILDREN'S CORNER.
7.0-9.40.—Programme S.B. from London.
9.40.—Mr. GEORGE MACDONALD, C.B., LL.D., F.B.A., on "Roman Britain—(5), Life in the Military Zone." S.B. to other Stations. Local News.
10.0-10.30.—Programme S.B. from London.

TUESDAY, February 3rd.

3.0-4.0.—The Station Pianoforte Trio.
5.0-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Prof. Charles Sarolea, Ph.D., LL.D., F.R.S.E., on "Paris as a World City."
7.0-8.0.—Programme S.B. from London.
8.0-8.20.—Programme S.B. from Glasgow.
8.20-12.0.—Programme S.B. from London.

WEDNESDAY, February 4th.

2.30-3.30.—The Station Pianoforte Trio.
3.30-4.0.—Talk to Schools: "Great Stories of the World," by Mr. J. C. SMITH, C.B.E.
5.0-6.0.—CHILDREN'S CORNER.
7.0-10.10.—Programme S.B. from London.
10.10.—Mr. J. S. CHISHOLM: Horticultural Talk. Local News.
10.20-10.30.—Programme S.B. from London.
10.30-11.30.—"THE ROMANY REVELLERS" from the Dumedin Palais.

THURSDAY, February 5th.

3.0-4.0.—The Station Pianoforte Trio.
5.0-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Mr. Charles Davidson. S.B. from Aberdeen.
7.0-11.0.—Programme S.B. from Glasgow.

FRIDAY, February 6th.

2.30-3.30.—The Station Pianoforte Trio.
3.30-4.0.—Talk to Schools: Sir LESLIE MACKENZIE, M.D., F.R.C.P.E., LL.D., F.R.S.E., etc., Medical Member of the Scottish Board of Health, on "Citizenship."
5.0-6.0.—CHILDREN'S CORNER.
6.40-6.55.—Ministry of Agriculture Bulletin. S.B. from London.
7.0.—WEATHER FORECAST and NEWS. S.B. from London.
PERCY SCHOLES. S.B. from London. Local News.

Vocal and Instrumental Evening.

WALDO CHANNON (Violin);
RAMSAY GEIKIE (Pianoforte);
CHESTER HENDERSON (Violoncello).
B. C. STEUART (Baritone).
7.30.—Mr. PHILIP SULLEY on "The Burning of the Clavie."
7.45. Waldo Channon, Ramsay Geikie and Chester Henderson.

Trio, "Dumky," Op. 90 Dvorak
Lento maestoso—Allegro; Andante;
Andante Moderato—Allegro; Lento
maestoso—Vivace.
8.20. B. C. Steuart.
"Eri tu" ("Ballo in Maschera") .. Verdi
"The Song of the Volga Boatmen"
Chaliapine-Koememann

8.30. Waldo Channon.
Romance from Concerto No. 2, Op. 22
Wieniawski
Hebrew Folk Song and Dance Brown
Fugue Tartini-Kreisler

8.46. Waldo Channon, Ramsay Geikie and Chester Henderson.
Trio (1918) Alex Voornoten
Lento piu anime; Pavane; Finale;
(First Performance in Scotland.)
(Continued in col. 1, page 279.)

Hull Programme.

6KH 335 M.

Week Beginning Sunday, February 1st.

SUNDAY, February 1st.

3.0-5.30. } Programmes S.B. from London.
8.20-10.30. }

MONDAY, February 2nd, and WEDNESDAY, February 4th.

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.
6.45-6.55.—Boy Scouts' Talk (Wednesday).
7.0-10.30.—Programme S.B. from London.

TUESDAY, February 3rd, and THURSDAY, February 5th.

3.0-3.30. } Claude Duval's Dance Orchestra.
4.0-4.30. }
3.30-4.0.—WOMEN'S HALF-HOUR.
5.15-6.15.—CHILDREN'S CORNER.
7.0 onwards.—Programme S.B. from London.

FRIDAY, February 6th.

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.

Popular Night.

HERBERT TINN (Tenor).
DAVID MILNER (Solo Banjo).
ADOLPHE KAGAN (Solo Violin).

MIRA JOHNSON (Humorous and
FERGUSON RAWLINGS } Dramatic
Sketches).
LOUIS GOULDEN (Synocopated Pianist).
7.30. Louis Goulden
Will play a few of the Dance Successes.
7.40. Herbert Tinn.
"I Hear a Thrush at Eve" } Codman
"At Dawning" } (1)
7.50. Dramatic Sketch.
"THE OPEN DOOR"
(Alfred Sutro).

Cast:

Lady Torminster.....MIRA JOHNSON
Sir Geoffrey Transom
FERGUSON RAWLINGS
8.10. Adolphe Kagan.
Larghetto Ries
Variations Tartini-Kreisler
8.20. Louis Goulden.
In further Dance Successes.
8.30. David Milner.
"Camptown Carnival" Morley
"Hungarian Rhapsody," No. 2
Liszt, arr. Hunter
"I'll Sing Thee Songs of Araby" .. Cloy
8.45. Humorous Sketch.
"HISTORY REPEATS ITSELF"
(Dawson Milward).

Cast:

General Sir Rupert Kenneth, K.C.B.
FERGUSON RAWLINGS
Aileen Kenneth (His Daughter)
MIRA JOHNSON

9.0. Herbert Tinn.
"Beneath Thy Window" Di Capua
"Passing By" Purcell
9.10. Adolphe Kagan.
"Ave Maria" Schubert-Wilhelm
"Obertass" (Polish Dance) .. Wieniawski
9.20. Louis Goulden.
Still More Syncopations.
9.30.—WEATHER FORECAST and NEWS. S.B. from London.
The Rt. Hon. F. D. ACLAND. S.B. from London.
Local News.

10.0. Herbert Tinn.
"Because" G. d'Hardelot
"Through the Sunrise" Nutting
10.10. Adolphe Kagan.
"Melody" Gluck-Kreisler
"The Canary" Poliak
(Continued in column 1.)



Brandes Superior
Matched Tone
Headphones.

25/-

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

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

Look at the illustration above. See how snugly the 'phones fit the head. A gentle pressure on the crown, a firm clasp to the ears, and the rest of the head-band is held well away from the hair. This means long-wearing comfort and the shutting out of extraneous sounds. Strength and firm beauty of line typifies their finished construction.

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

Brandes Superior Matched Tone Headphones are admirably versatile. It's hard to imagine them fitting snugly to the tenderest curly head and yet fulfilling their duty on the head of the expert who sits down to long hours of serious experiment. So comfortable and with a rugged strength of construction to protect their delicate adjustment, they are excellent for family use. Primarily designed from expert technical knowledge for long-range telephony, their Matched Tone feature brings in the most distant signals with purity and strength. The experimenter finds that they bring the best results in trans-atlantic and trans-continental reception. One gentleman writes from Walton-on-Thames: "I received Australia on Brandes and consider they are the most sensitive 'phones I have used. I am much pleased with their general performance."

Obtainable from any reputable dealer.



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. It is matched to the unit so that the air resistance produced will exactly balance the mechanical power of the diaphragm. This means 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

Superior Matched Tone Headphones.

25/-

FOR · HOME · STATIONS · OR · TRANS-ATLANTIC · TELEPHONY

Leeds—Bradford Programme.

2LS 346 M. 310 M.
Week Beginning Sunday, February 1st.

SUNDAY, February 1st.

3.0-5.30. } Programmes S.B. from London.
8.20-10.30. }

MONDAY, February 2nd, and SATURDAY, February 7th.

11.30-12.30.—Gramophone Records.
2.35-3.45.—The Station Trio.
5.15-6.15.—CHILDREN'S CORNER.
6.40-6.55.—Scout Corner (Monday).
7.0 onwards.—Programme S.B. from London.

TUESDAY, February 3rd, and THURSDAY, February 5th.

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.—Kolin Robertson: "A Chat on Golf" (Tuesday).
"Horticultural Talk," by Sydney Rogers, F.R.H.S. (Thursday).
7.0 onwards.—Programme S.B. from London.

WEDNESDAY, February 4th.

11.30-12.30.—Gramophone Records.
3.30-4.30.—Bensley Ghent and his Orchestra, relayed from the Tower Picture House, Leeds.
5.15-6.15.—CHILDREN'S CORNER.
6.40-6.55.—"On My Anvil," by the Smilesmith.
7.0-10.30.—Programme S.B. from London.

FRIDAY, February 6th.

11.30-12.30.—Gramophone Records.
3.30-4.30.—A Talk to Local Schools.
4.0-4.30.—Bensley Ghent and his Orchestra.
5.15-6.15.—CHILDREN'S CORNER.
7.0.—WEATHER FORECAST and NEWS. S.B. from London.
PERCY SCHOLLES. S.B. from London. Local News.
THE "6FL" TRIO AND QUARTET:
ENA ROBERTS (Contralto).
LEONARD ROBERTS (Baritone).
HAROLD BUXTON (Recitals).
GEORGE DALEY (Solo Flute).
IVY SMITH (Solo Pianoforte).

7.30. Trio.
Three Miniatures Frank Bridge
7.42. Ena Roberts.
"Hills of Donegal" Sanderson (1)
"I Heard You Go By" Wood (5)
"For You Alone" Geehl
7.55. Harold Buxton.
"Orange Blossoms" Sax Rohmer (13)
"Little Nell's Grandfather" Chas. Dickens (13)
8.5. COLLIN SMITH (Solo Violoncello).
Minuet Handel
Sarabande Sulzer
Spanish Serenade Glazounov
8.25. IDA BLOOR.
"Thou Charming Bird" F. David
(With Flute Obligato.)
"All in a Garden Green" Lidgley (1)
8.36. Trio.
Aria from Suite in D Bach
Brandenburg Concerto
8.46. Leonard Roberts.
"Harlequin's Song" ("The Passing Show")
Herbert Oliver (8)
"The Tavern Song" Howard Fisher (8)
"The Call" Herbert Oliver (8)
8.58. Ivy Smith.
"Rustling Woods" Liszt
Impromptu Chopin
Arabesque MacDowell (4)
9.8. Ena Roberts.
"My Ships" Barratt (1)
"Ombra mai fu" Handel
"Angus Macdonald" Roedel
9.20. Quartet.
Overture, "Plymouth Hoe" Ansell
9.30.—WEATHER FORECAST and NEWS. S.B. from London.
The Rt. Hon. F. D. ACLAND. S.B. from London. Local News.
10.0-10.30.—Programme S.B. from London.

Liverpool Programme.

6LV 315 M.
Week Beginning Sunday, February 1st.

SUNDAY, February 1st.

3.0-5.30.—Programme S.B. from London.
8.30-9.0.—Hymn A. and M., No. 242.
Anthem, "Send Out Thy Light".....Gounod
Address by the Rev. GEORGE BARRETT.
Hymn A. and M., No. 21.
9.0-10.30.—Programme S.B. from London.

MONDAY, Feb. 2nd, and WED., Feb. 4th.

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 Manchester (Monday) and London (Wednesday).

TUESDAY, February 3rd.

4.0-5.0.—The "State Brighter Liverpool" Band, relayed from the State Café.
5.30-6.30.—CHILDREN'S CORNER.
7.0-12.0.—Programme S.B. from London.

THURSDAY, February 5th, and SATURDAY, February 7th.

3.30-4.30.—Gaillard and his Orchestra.
5.30-6.30.—CHILDREN'S CORNER.
6.40-6.55.—The Rt. Hon. Lord HAMPTON. S.B. from Birmingham (Thursday).
7.0 onwards.—Programme S.B. from London.

FRIDAY, February 6th.

3.15-3.45.—Transmission to Schools.
4.0-5.0.—The "State Brighter Liverpool" Band.
5.30-6.30.—CHILDREN'S CORNER.
6.40-7.30.—Programme S.B. from London.
BERYL DE WILLACY (Soprano).
GEORGE JEFFCOCK (Baritone).
MURIEL AKED (Character Study).
HARRY VARDON (Entertainer).
THE STATION TRIO.
Under the Direction of ARTHUR ROWLANDS.
7.30. Trio.
Overture, "The Crown of Diamonds" Auber
"Serenade" Widor
7.45. George Jeffcock.
"Wander Thirst" London Ronald (5)
"Sea Surge" Alma Goatley (5)
"Old Barty" Douglas Grant (1)
7.55. LEONARD COLLINSON (Solo Violoncello)
"Greek Dance" Segilina
"Spinning Wheel" Denkler
"Veil Dance" Goldmark
8.10. Beryl de Willacy.
"Santuzza's Romance" Mascagni
"A Birthday" Cowen (15)
"The Lament of Isis" Bantock
8.20. Trio.
Children's Suite Ansell
8.45. Harry Vardon.
"Memories of 'Mr. Shean.'"
9.0. George Jeffcock.
"I Dream of a Garden of Sun-hine" (From Song Cycle, "Songs of the Southern Isles") H. Lohr
"When Spring Comes to the Islands"
"Devonshire Cream and Cider" Sanderson (1)
9.10. Muriel Aked.
"Ow Me an' Me Mother Went to Vote."
9.20. Trio.
"La Cinquantaine" Gabriel Marie
"Minuet" Boccherini
9.30-10.0.—Programme S.B. from London.
10.0. Trio.
"The Dance of the Waves" (The Loreley) Catalani
10.10. Beryl de Willacy.
"Elaine's Song" Frederick Nicholls
"Butterfly Wings" Montague Phillips
"Ritorna Vincitor" ("As Victor Then Return") ("Aida") Verdi
10.20. Trio.
Selection, "The Little Dutch Girl" Kalman
10.30.—Close down.

Nottingham Programme.

5NG 322 M.
Week Beginning Sunday, February 1st

SUNDAY, February 1st.

3.0-5.30. } Programmes S.B. from London.
8.20-10.30. }

MONDAY, February 2nd.

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.—Prof. H. A. S. WORTLEY, M.A., on "Modern Psychology" (4).
7.0-10.30.—Programme S.B. from London.

TUESDAY, February 3rd.

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.—Teens' Corner.
6.35.—Mr. V. de Sola Pinto, M.A., Shakespeare's "Midsummer Night's Dream."
7.0-12.0.—Programme S.B. from London.

WEDNESDAY, February 4th.

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.
6.0-6.15.—Teens' Corner.
7.0-10.30.—Programme S.B. from London.

THURSDAY, February 5th.

3.25-3.45.—Mr. E. L. Guilford, M.A., on "Home Life in Old Nottingham."
3.45-4.45.—Scala Picture Theatre Orchestra.
5.15-6.0.—CHILDREN'S CORNER.
6.0-6.15.—Teens' Corner.
6.35-6.55.—Scouts' Corner.
7.0-11.0.—Programme S.B. from London.

FRIDAY, February 6th.

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.—Teens' Corner.
6.35-6.55.—Mr. C. Taborn on "Planning the Garden and Allotment."
7.0-7.30.—Programme S.B. from London.

An Elizabethan Evening.

(With Excursions into the 17th and 18th Centuries.)

THE CHAPLIN TRIO:

NELLIE CHAPLIN (Harpsichord).
KATE CHAPLIN (Viola d'Amore).
MABEL CHAPLIN (Viola da Gamba).
THE NOTTINGHAM GLEE AND MADRIGAL SOCIETY.
Conductor, CHARLES E. RILEY.
E. L. GUILFORD, MARGARET M. GUILFORD,
and further Cast in Scenes from Shakespeare and Marlowe.
7.30. Nellie Chaplin.
Pavana (The Measure of Shakespeare) and Galiardo ("The Earl of Salisbury")
Byrde—1538-1623
The King's Hunting Jig (Fitzwilliam Collection) Dr. John Bell—1563-1628
The Queen's Command ("The Parthenia")
Orlando Gibbons—1583-1625
Glee and Madrigal Society.
Madrigal, "Sing, Shepherds All"
Nicholson—1595-1693 (11)
Ballet, "Now is the Month of Maying"
Morley—1557-1604 (25)
Madrigal, "Adieu, Sweet Amarillis"
Wilbye—1598-1609 (11)
Kate Chaplin.
The Irish Ho-Hoane .. arr. G. Saint George
E. L. Guilford, Margaret M. Guilford,
etc., in a Scene from
"THE TEMPEST"
(William Shakespeare—1564-1616).
(Continued in col. 1, page 279.)



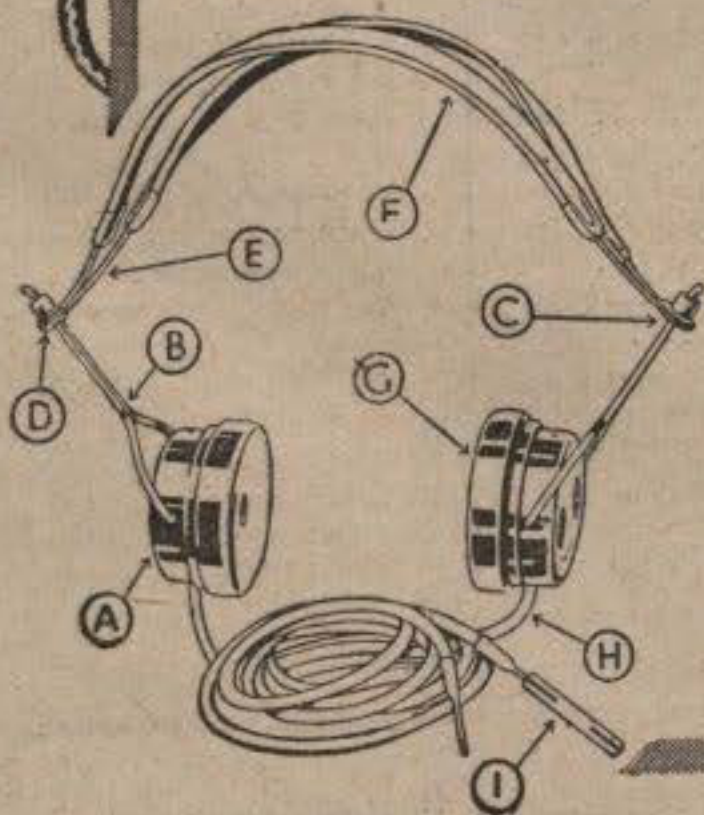
B.T.H. Headphones

The original pattern B.T.H. Headphones achieved a remarkable reputation for sensitiveness and tonal quality. Many improvements have since been made, with the result that to-day B.T.H. Headphones are the most comfortable and convenient instruments of their kind. Some of the more important constructional features are given below:—

Price

per pair **25/-**
(4000 ohms)

Weight with cord 9½ ozs.



- A** The body is of special non-resonating material.
- B** The stirrup moves freely within the slider, and takes up and retains its position without any locking device.
- C** The stirrup cannot be completely revolved in the slider. Kinking and twisting of the cord are thus avoided.
- D** The special slider adjustment obviates the use of screws.
- E** Spring steel headbands give the exact pressure required for perfect hearing with ut discomfort. There is no "scissors" movement.
- F** The leather covering gives perfect comfort.
- G** The earpieces fit closely to the ears.
- H** Best quality flexible cord.
- I** Nickel plated series connector.

Obtainable from all Electricians and Radio Dealers.

Advert. of The British Thomson-Houston Co., Ltd.

2273



Plymouth Programme.
5PY 338 M.
Week Beginning Sunday, February 1st.

SUNDAY, February 1st.

3.0-5.30.—*Programme S.B. from London.*
 8.15-9.0.—Evening Service relayed from the Guildhall.
 Religious Address by the Rev. J. HOWEN RODDA (Pastor Greenbank United Methodist Church).
 9.0-10.30.—*Programme S.B. from London.*

MONDAY, February 2nd, to WEDNESDAY, February 4th.

3.30-4.30.—Ernest Manning and his Orchestra, relayed from the New Palladium Cinema. Vocalist, Dorothy Lincoln (Soprano).
 5.0-5.30.—**WOMEN'S TOPICS:**
 Address by Viscountess ASTOR, M.P. (Monday).
 5.30-6.30.—**CHILDREN'S CORNER.**
 7.0 onwards.—*Programme S.B. from London.*

THURSDAY, February 5th, and SATURDAY, February 7th.

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.—The Rt. Hon. Lord HAMPTON. *S.B. from Birmingham. (Thursday.)*
 7.0 onwards.—*Programme S.B. from London.*

FRIDAY, February 6th.

3.30-4.0.—Talks to Schools: Mr. S. B. STEDHAM, "How Bricks Are Made." Musical Interlude. Mr. H. V. MILLER. "How First Aid is Given to the Injured."
 4.0-5.0.—Albert Fullbrook and his Trio.
 5.0-5.30.—**WOMEN'S TOPICS.**
 5.30-6.30.—**CHILDREN'S CORNER.**
 6.40-7.30.—*Programme S.B. from London.*

A Dickens Recital.

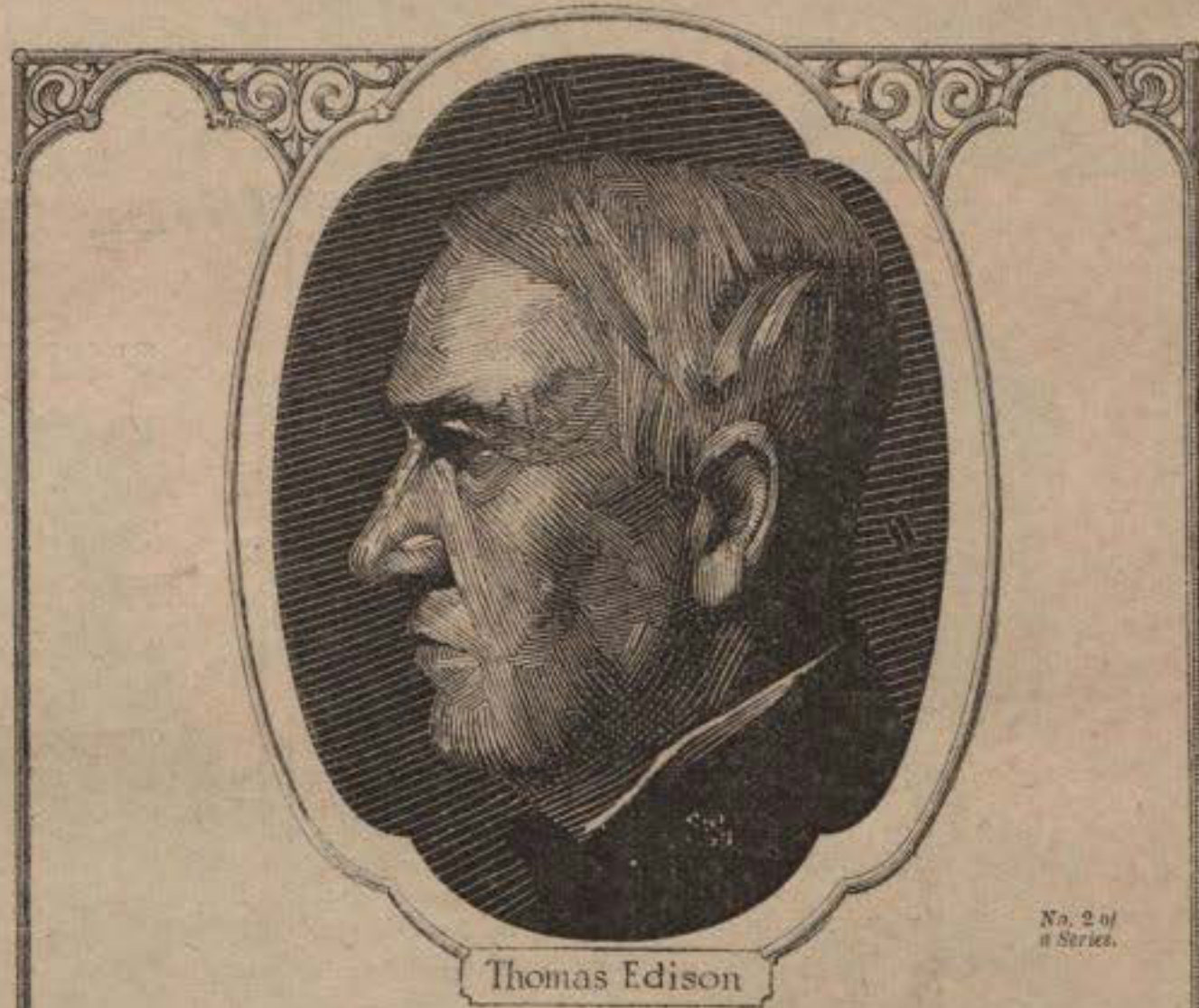
THE COLMAN TRIO:

WILLIAM LEWIS (Tenor);

REGINALD HAMLYN (Baritone);

CHARLES FREEMAN (Dramatic Recitals).
 DELSIE ELGAR J

- 7.30. Trio.
 Selection, "Merrie England" German
 William Lewis.
 7.40. "My Kingdom" Adams
 "Passing By" Purcell
 "Bridget" McGeoch
 7.50.—Mr. J. H. THOMAS, M.C., M.I.E.S.,
 "Through Forest and Jungle to the Heart of Africa" (2)
 8.10. Reginald Hamlyn.
 "Night" Rimsky-Korsakov
 "Song of the Volga Boatmen" Chaliapine-Koennemann
 8.20. Recital from
 "OLIVER TWIST"
 (Dickens).
 Nancy DELSIE ELGAR
 Fagin CHARLES FREEMAN
 Bill Sikes }
 8.40. Trio.
 Finale, Trio in D Minor Arensky
 8.50.—Mr. S. FOWLER WRIGHT, "Living Poets of Devonshire and Cornwall" (2).
 William Lewis.
 9.20. "In Love" Lohr
 "The English Rose" German
 "Home" Evans
 9.30-10.0.—*Programme S.B. from London.*
 10.0. Reginald Hamlyn.
 "Prière" Kalinikoff
 "Oh! How Could I Express in Song?" Malushkin
 "When the King Went Forth to War" Koennemann
 10.10. A One-Act Farce.
 "A STRANGE PROPOSAL"
 (Charles Tiffin).
 Lady Clutterbuck DELSIE ELGAR
 Sir Chas. Coldstream, Bt. CHARLES FREEMAN
 Trio.
 10.20. Selection, "Poppy" ... Jones and Samuels
 10.30.—Close down.



No. 2 of a Series.

Edison's Bamboo Filaments.

AMONG all Edison's marvellous contributions to mankind—from the phonograph to the carbon microphone—none has been more spectacular than his invention of the first electric lamp.

This wizard of electricity saw that, although the arc lamp was an established success, electric lighting could not progress until it was brought into the people's homes. It is said that Edison's experiments to discover the electric lamp cost him £10,000, and certainly he was many years on the problem before he attained success. Although the first filaments were of carbonised cotton, he discovered that bamboo, of all substances, gave him the best results!

It is indeed a far cry from carbonised bamboo to the wonderful filaments inside the new Cossor Wuncell Dull Emitter. About as far as the latest De Havilland is from the flimsy contraption flown by Wilbur Wright at Dayton one-and-twenty years ago.

The Wuncell filament glows at a temperature of only 800 degrees—certainly the nearest approach to the cold valve yet reached. In addition to low current consumption this also means an extraordinary long life. Before buying any more Valves be sure to read our Wuncell Folder—full of interesting facts you ought to know about dull emitters. Get one free from our Dealer, or send a postcard for one to us.

Wuncell Valves cost 21/- each, from all Dealers (23/6 if supplied with inbuilt resistance for use with 2, 4, or 6 accumulator, without alteration to wiring of Set).



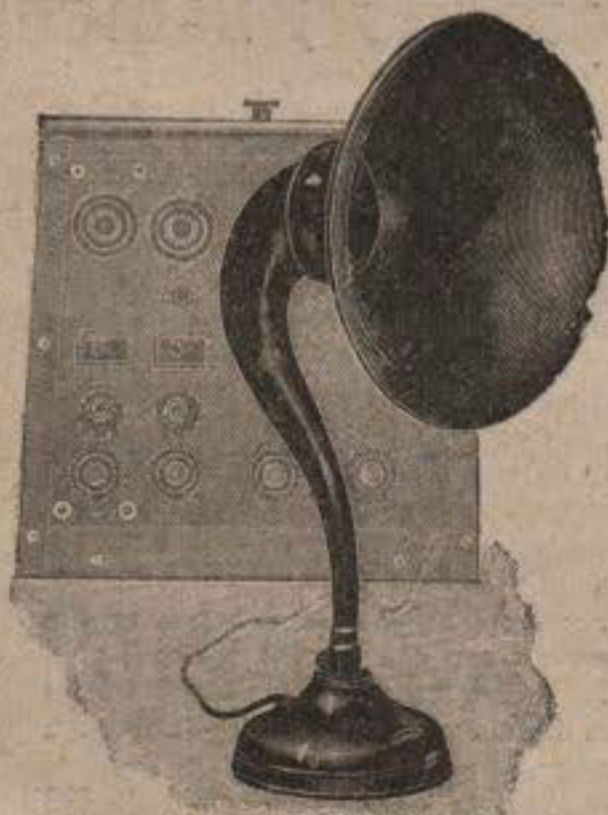
LOUD SPEAKERS **SIEMENS** **HEAD TELEPHONES**



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.

CURTIS

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.
75, CAMDEN ROAD, N.W.1

Telegram: "Pamcurtex." Phone: North 5112.

BIRMINGHAM: 76, Newhall Street.

Central 7236.

MANCHESTER: 312, Deansgate.

Central 5095.

In conjunction with

The PARAGON RUBBER MFG. Co., Ltd.

Illustration 613

VALVE RENEWALS

We repair, by our patent process, 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 ROAD, WIMBLEDON.

RE-MAGNETISING
makes OLD Phones like NEW

A WONDERFUL SERVICE.

Magnetism is the leading factor in working of your wireless headphones; no matter their quality, they will become demagnetised with constant use.

The "Chase System"

is the only one in the kingdom and will re-magnetise your phones and Loud-speakers up to super-strength.

In most cases the "Chase System" makes phones better than new—hundreds delighted.

Please detach headband when sending phones. Leave Flexes on. Loud-speaker units adjusted carefully and brought up to super-strength from 5/- to 7/6, return post paid.

KEEP THIS ADVERTISEMENT FOR FUTURE REFERENCE.

F. CHASE & CO., 195, Archway Road, London, N.6.
Hornsey 691. V.P.

3/-

Per Pair.
Post free.

Stoke - on - Trent Programme.

6ST 306 M.

Week Beginning Sunday, February 1st.

SUNDAY, February 1st.

3.0-5.30.—Programme S.B. from London.
 8.30-9.0.—Hymn, A. and M., No. 450.
 The Rev. W. A. RUNDELL, A.K.C., All Saints' Church, Boothem: Address.
 Hymn, A. and M., No. 27.
 9.0-10.30.—Programme S.B. from London.

MONDAY, February 2nd, to THURSDAY, February 5th, and SATURDAY, February 7th.

3.30-4.30.—The Majestic Cinema Orchestra.
 Musical Director, Thomas Beckett.
 3.30-4.30.—Gramophone Records (Thursday).
 5.0-6.0.—CHILDREN'S CORNER.
 6.40-6.55.—The Rt. Hon. Lord HAMPTON.
 S.B. from Birmingham (Thursday).
 7.0 onwards.—Programme S.B. from London.

FRIDAY, February 6th.

3.30-4.30.—The Majestic Cinema Orchestra.
 5.0-6.0.—CHILDREN'S CORNER.
 6.40-7.30.—Programme S.B. from London.
THE HANLEY VOCAL UNION CHOIR:
 Conductor, EDWARD RATHBONE.
 EDITH MALAND (Soprano).
 CYRIL L. BROOKE (Baritone).
 AGNES E. SHERWIN (Solo Violin).
 IDA FURNIVAL (Solo Pianoforte).
 HAROLD MORRIS (Pianoforte).
 7.30. The Choir.
 "The Soldiers' Chorus" ("Faust")
Gounod (11)
 Part Song, "Come, Dorothy, Come"
Swabian Folkslied (11)
 Part Song, "In This Hour of Softened
 Splendour" *Pinsuti* (11)
 7.40. Ida Furnival.
 "Butterfly"
 "Little Bird" *Grieg*
 "Poeme Erotique" (Love Poem).
 "March of the Dwarfs."
 7.50. Cyril L. Brooke.
 "My Dreams" *Tosti*
 "The Soldier's Scarlet Coat" *German*
 8.0. Agnes E. Sherwin.
 "Pisen Lasky" *Josef Suk*
 8.10. Edith Maland.
 "Carmena" *Lane Wilson* (22)
 "Sanctuary" *Hewitt* (31)
 8.20. The Choir.
 Part Song, "Moonlight" *Eaton Fanning* (11)
 Chorus, "Be Not Afraid" *Mendelssohn*
 8.30. Ida Furnival.
 Preludes, Nos. 20 and 1 } *Chopin*
 Study in F, Op. 25, No. 3 }
 Berceuse }
 Fantaisie-Impromptu }
 8.40. Cyril L. Brooke.
 "Valse" *Kennedy Russell* (1)
 "The Blue Dragons" *Kennedy Russell*
 8.50. Agnes E. Sherwin and Harold Morris.
 Duet for Violin and Piano, Finale from
 Suite *Schutt*
 9.0. Edith Maland.
 "Villanelle" *E. del'Acqua*
 "April Morn" *Batten* (1)
 9.10. The Choir.
 Part Song, "My Bonnie Lass"
Ed. German (11)
 Part Song, "Who is Sylvia?"
Ed. German (11)
 Chorus, "On Jordan's Banks" *Max Bruch*
 9.23. Ida Furnival.
 Ballade, Op. 119 *Brahms*
 9.30-10.0.—Programme S.B. from London.
 10.0. Cyril L. Brooke.
 "The Trumpeter" *Airlie Dix* (1)
 10.5. Agnes E. Sherwin.
 Selected.
 10.10. Edith Maland.
 Selected.
 10.15. Ida Furnival.
 Concert Study in D Flat *Liszt*
 10.20. The Choir.
 Part Song, Selected.
 National Anthem *arr. Costa*
 10.30.—Close down.



The "STRAD"
of LOUD
SPEAKERS

Illustration shows Swan Neck
 A.R. 15 Model. With Oak
 Horn, £6 0 0. With
 Mahogany Horn, £6 5 0

**A Product of
The House of Graham**

AS Stradivari, in the past, gave to the world the most perfect violin, so does the House of Graham give to the world to-day the most perfect Radio Loud Speaker.

The Service of the House of Graham—given free and backed by more than 30 years of experimental research—ensures that every AMPLION is a "Strad" imparting full meaning to the words "Better Radio Reproduction."

Beyond even this superlative performance, for which the AMPLION has become world-famous, discriminating purchasers look also for pleasing appearance—and find it. No other form of Loud Speaker compares with the graceful lines and fine finish of the swan-neck AMPLION illustrated, the real "Strad of Loud Speakers."

The World's Standard **AMPLION** Wireless Loud Speaker

Antonio Stradivari passed on to mankind instruments of amazing purity and richness of tone. His violins are with us still, but his secret he carried to the grave.



Obtainable from all Wireless Dealers of Repute.

Illustrated Folder post free from the Patentees & Manufacturers:

ALFRED GRAHAM & CO.
 (E. A. GRAHAM)
 St. Andrew's Works,
 Crofton Park,
 LONDON, S.E.4.



A few bald Facts

Fellophone Super-One. A very efficient and inexpensive one-valve set. Complete with 6-V. Accumulator, H.T. Battery, Louden Valve, Headphones, Fellows Loading Coil, Aerial and Insulator ... **£7 : 0 : 0**

Cabinet only **£3 : 10 : 0**
Marconi Tax, 12/6 extra in each case.

Super-One Amplifier. Single Valve Amplifier, uniform with the Super-One. Can be used in conjunction with crystal or valve set.

Cabinet only **£3 : 0 : 0**
Complete with 6-V. Accumulator, H.T. Battery and Louden Valve **£5 : 5 : 0**
Marconi Tax, extra in each case, 12/6.

Fellophone Super-2. A useful Two-Valve Receiver at a very moderate price. Complete with H.T. Battery, 6-V. Accumulator, Headphones, Aerial and Insulators **£11 : 0 : 0**

Plus Marconi Tax, 25/-. Valves extra.

Super-2 Amplifier **£6 : 0 : 0**
Plus Marconi Tax, 25/-. Valves extra.

The Fellophone Grand. A handsome Three-Valve Cabinet Receiver. By means of dual amplification on one valve, the effect of a four-valve circuit is obtained. Complete with Batteries, Headphones, Aerial and Insulators **£20 : 0 : 0**

Marconi Tax, 37/6. Valves extra.

The Fellows Volutone Loud Speaker. A first-class Loud Speaker, giving exceptionally full volume and clear tone, fitted with adjustable diaphragm **£4 : 10 : 0**

The Fellows Junior Loud Speaker. Junior in name and price only. Except for sheer power is the equal of practically any big Loud Speaker on the market. Over 18" high and fitted with adjustable diaphragm **30/-**

The Fellows Lightweight Headphones. An extremely comfortable and inexpensive pair of Duralumin Headphones. 4,000 ohms. Price **18/6.**

Also the **Fellocryst Super.** A most efficient Crystal Receiving Set. Complete with Aerial, Insulator and Headphones. Price **£2 : 12 : 6.**

Muel's Fellows



"Fellocryst Super"

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.



ADVT. OF THE FELLOWS MAGNETO CO., LTD., PARK ROYAL, LONDON, N.W.10.

E.P.S.119.

The Crystal with Valve Power



THE WORLD'S GREATEST RADIO CRYSTAL

Chelsea, S.W.
"I have tried the crystal and I am pleased with it. It is O.K., and in engineering language O.K. means pretty near perfect. I have tried no end of crystals and all kinds of sets—valve sets included—but for London, given a decent crystal set, and a GOOD crystal, there is nothing to beat the quality and purity of tone. Neutron, from my little experience of it, so far, will answer the purpose."
J.W.G.

1/6

Sole Distributors:
V. ZEITLIN & SONS,
144, Theobalds Rd., London, W.C.1.
Phone Museum 6841.

Agents for Ireland—
PETTIGREW & MERRIMAN, LTD.,
8, Corporation Street, Belfast.

Sole Producers:
NEUTRON LTD.,
Sicilian House, Southampton Row, London, W.C.1.
Phone: Museum 2677.



Radio Corner

THE LONDON HOME OF



PRODUCTS

We have Sets which Receive all British and Continental Broadcast Stations, and all Components Required for Home-Constructed Sets.

Have you seen the M.H. Film showing at all Leading London Cinemas?

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 638.



224S F A K E

Safety First

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.** The low grade imitation may look much the same—may cost the same, may or may not have a name on it—but without the hall mark "Climax" on the cap it is most likely a 10% proposition. You cannot afford to take the risk. Refuse substitutes. **Insist on a Climax Radio Earth.** Identify the Climax by the cap.



The Climax Radio Earth costs five shillings. It can be installed in five minutes. It is far better than the old-fashioned water or gas pipe earth, with its long, ugly and inefficient wire trailing through the house, followed by a bad joint on to a wandering pipe.

The heavy 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. It carries water easily to the surrounding ground.

If you are troubled with
 Weak signals, Intermittent signals,
 Electric main disturbances, Local set interference,
 Muddy reception,
 The probable cause of the trouble is an inefficient earth.

**GET A BETTER EARTH TO-DAY.
 GET A CLIMAX COPPER EARTH.**

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.

REFUSE SUBSTITUTES. INSIST ON SEEING THE NAME CLIMAX ON THE CAP

PRICE
5/-

IMMEDIATE DELIVERY.

CLIMAX RADIO

CLIMAX PATENTS, LTD.,
 182, Church Street, London, W.8.
 Telephone: Park 2023.



Charge Your Own ACCUMULATORS AT HOME FREE OF ALL COST

With **ULINKIN**

The D.C. Home Battery Charger which is the simplest, the safest and the most reliable instrument on the market for charging your own accumulators at home off your existing electric lighting or heating supply. (For Direct Current only.)

Can be fixed by anybody within a few minutes and is then immediately ready for use at all times. Guaranteed foolproof and positively conforms to all regulations of local supply companies and insurance companies.

Whenever you have lights, radiators, electric iron or vacuum cleaner in use in any part of your house, the ULINKIN automatically charges your accumulators without consuming any extra current, and therefore free of cost.

Carr. 42/-
 Free. **42/-**

Complete with simple printed instructions.

SIMPLE SAFE
 Suitable for any voltage, D.C. only.

Illustrated Pamphlet and full particulars post free on request.
GRAN-GOLDMAN SERVICE
 Co. (Dept. R32),
 71, Fleet St., London, E.C.4.
 Trade Enquiries Invited.

PROFIT BY THE EXPERIENCE OF OTHERS—

WGY KDKA WOR
 WHAM WBZ

PROOF

TAUNTON.
 "With your Crystal and a One-Valve home-made Amplifier I get these American stations direct. They are quite loud on 'Phones."

THAT'S ALL YOU NEED KNOW ABOUT CRYSTALS!

Special Catswhisker in Tube, Tweezers, Signed Slip Directions.
 Of all Dealers 1/6 or Post Free.

BRITAIN'S BEST CRYSTAL, LTD.,
 234/5, Salisbury House,
 LONDON WALL, E.C.2.

Edinburgh Programme.

(Continued from page 267.)

- 9.15. B. C. Steuart.
 "The Yeomen of England" E. German
 "Drake Goes West" Sanderson (1)
 "Lolita" A. Buzzi-Peccia
- 9.30.—WEATHER FORECAST and NEWS.
 S.B. from London.
 The Rt. Hon. F. D. ACLAND. S.B. from
 London.
 G. L. MARSHALL: Station Topics.
 Local News.
- 10.0. Chester Henderson.
 Ballade, Op. 3 }
 Serenade f Suk
- 10.16. Ramsay Geikie.
 Nocturne in F Minor, Op. 55, No. 1 }
 Waltz in E Minor, No. 14 Chopin
 Ballade in A Flat, Op. 47. }
- 10.26. Waldo Channon, Ramsay Geikie and
 Chester Henderson.
 Fantasy Pieces, Op. 38 Schumann
 Romance; Humoresque; Duet; Finale.
- 10.40.—Close down.

SATURDAY, February 7th.

- 3.0-4.0.—The Station Pianoforte Trio.
 5.0-6.0.—CHILDREN'S CORNER.
 7.0-12.0.—Programme S.B. from London.

Nottingham Programme.

(Continued from page 269.)

- Mabel Chaplin.
 "Heartsease" (Accompaniment by G.
 Saint George),
 Glee and Madrigal Society.
 Madrigal, "All Creatures Now Are Merry
 Minded" Benet—1570-1615 (1)
 Choral Ayre, "I Thought That Love Had
 Been a Boy" .. Byrde—1538-1623 (2)
 Ballet, "Fire, Fire, My Heart"
 Mosley—1557-1604 (11)
 Choral Ayre, "Come Again, Sweet Love"
 Dowland—1562-1625 (2)
 The Chaplin Trio.
 The Tourdion (1588).
 Courante (1665).
 Saint Martin's (1665).
 Kemps Jigg arr. Dr. E. Naylor
 E. L. Guilford in the Final Scene from
 "FAUSTUS"
 (Christopher Marlowe—1564-1593).
 Nellie Chaplin.
 Gavotte and Musette from English Suite in
 G. Minor Bach—1685-1750
 Lady Elizabeth Spencer's Minuet
 Dr. Philip Hayes—1738-1797 (2)
 "Le Coucou" ("The Cuckoo")
 C. Daquin—1694-1772
 Mabel Chaplin.
 Gavotte Chedeville—1700-1782
 Canaries } Boismortier—1691-1765
 Rigaudon)
 (Accompaniments set by Kate Chaplin.)
 9.30-10.0.—Programme S.B. from London.
 10.0. Kate Chaplin.
 Largo Ariosti—1660
 "Le Grand Père" arr. G. Saint George
 E. L. Guilford and Margaret M.
 Guilford
 in a Scene from
 "THE TAMING OF THE SHREW"
 (William Shakespeare).
 Glee and Madrigal Society.
 Madrigal, "Since First I Saw Your Face"
 Ford—1580-1648 (1)
 Ballet, "Lady, Your Eye"
 Weolkes—1578-1623 (14)
 Madrigal, "While the Bright Sun"
 Byrde—1538-1623 (11)
 Choral Ayre, "Now Let Her Change"
 Pilkington—1570-1638 (11)
 The Chaplin Trio.
 Sonata No. 2. Jean Baptiste Loeillet
 10.40.—Close down.

SATURDAY, February 7th.

- 3.15-4.15.—Scala Picture Theatre Orchestra.
 5.0-6.0.—CHILDREN'S CORNER.
 7.0-12.0.—Programme S.B. from London.

T M C

CHI VALENTE VA SANO.

"Who goes slowly goes safely" say the Italians; and even Casanova saw something in that.

The idea suggests the keynote of T.M.C. production—that "infinite capacity for taking pains" that is exemplified in the three T.M.C. products here illustrated.

The non-resonating horn of the TrueMusiC Concert Grand is of electrolytically deposited copper. This loud speaker gives the purest tone combined with large volume, and you cannot get a better for drawing-room and dancing purposes.

The T.M.C. Clear as Crystal Headphones actually give signal reception that is "Clear as Crystal." The T.M.C. No. 3 Lightweight Headphones weigh only 6½ ounces. The earpiece attachments do not catch in feminine hair, nor the V-connections on the masculine pipe.

T.M.C. No. 2A Headphones are just as good, but slightly heavier—and 3/- cheaper. As headphones for listening-in, both are—just as good as they can be!



TrueMusiC Concert Grand
 Nigger-brown finish, inside
 horn polished and lacquered,
 4,000 ohms. 30 ins. high.
£6 - 10 - 0

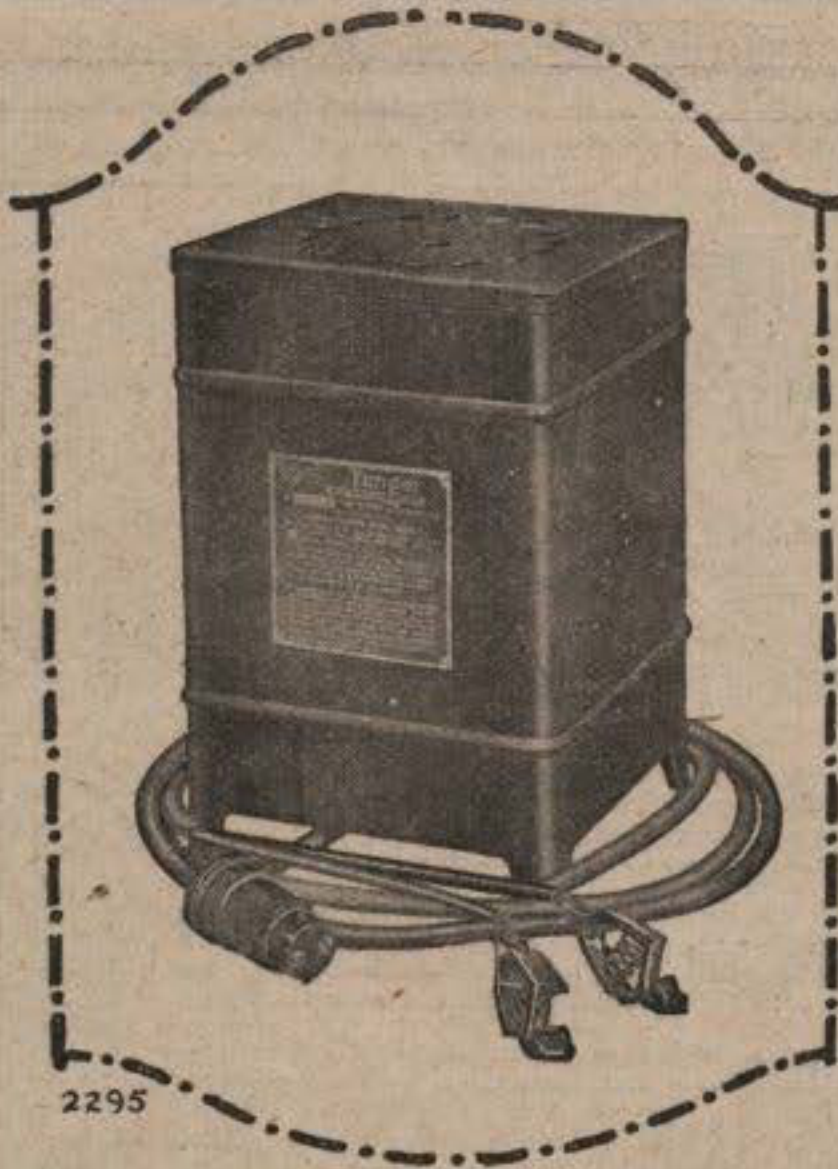
T.M.C. No. 2A Head-
 phones, 4,000 ohms.
19/6

T.M.C. No. 3 Lightweight
 Headphones, 4,000 ohms.
22/6



The Telephone Manufacturing Co., Ltd., Hollingsworth Works, West Dulwich, S.E.21

E.P.3.208



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



"LIBERTY" SAFETY WANDER PLUG
passes sufficient current to supply circuit, but NOT enough to harm or destroy Valves, even if wrongly connected.

PRICE 2/6

ONE Plug only required for circuit

Pat. 18016/24
For Dull Emitters
06 amps 3/-

PROTECT YOUR VALVES

No bulbs or fuses to renew.

A permanent safeguard against untimely Valve destruction.

To be had of all up-to-date Wireless Dealers; if out of Stock, send p/o direct to makers and Plug will be sent post free.

Sole Patentees and Manufacturers:
RADI-ARC ELECTRICAL CO., LTD.,
Bennett St., Chiswick, London, W.4.

BEGINNER'S GUIDE TO WIRELESS

If you wish to make Wireless Sets which are **UNBEATABLE IN PRICE, QUALITY, or EFFICIENCY**, this is the book you must have.

It explains all about Wireless in plain everyday language, and tells you exactly what each Set costs to make.

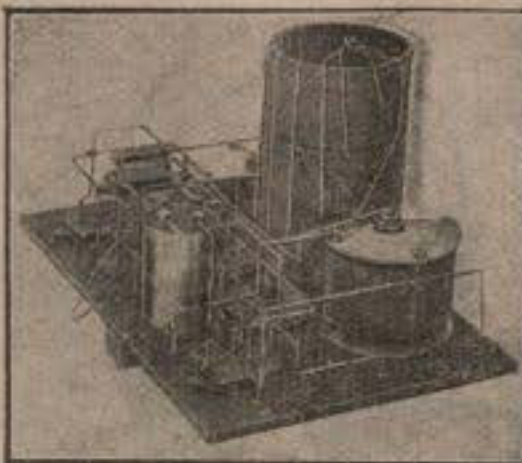
HOW TO ERECT, CONNECT AND MAKE all kinds of Wireless Apparatus including SUPER EFFICIENT CRYSTAL SETS, ONE AND TWO VALVE AMPLIFIERS, DUAL AMPLIFICATION SETS; ALSO THE VERY LATEST TYPES OF TWO, THREE and FOUR VALVE TUNED ANODE RECEIVERS.

160 PAGES, INCLUDING 28 DIAGRAMS, 1/3 POST FREE.

SAXON RADIO CO. (DEPT. 24), SOUTH SHORE, BLACKPOOL.

If you already have a Wireless Set, get this book and make a better one.

Satisfaction guaranteed or money returned.



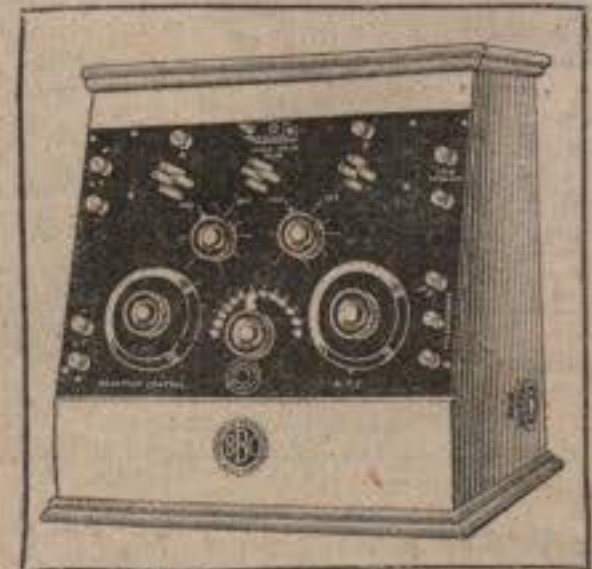
One of our instruments about half finished (note special design of coil which gives high efficiency and eliminates interference).

FOR THOSE WHO WANT THE BEST

Dunham Instruments will particularly appeal. When you buy a wireless receiver it will pay you to buy the best with an assurance of quality and with a definite guarantee. The unique design and circuit arrangements make Dunham Instruments the most efficient and their beautiful finish gives them pride of place in every home. Wonderfully built and designed, they give a range that is unequalled with a rendering that is perfect and they are extremely simple to operate. The Dunham 3-valve set will bring in distant stations on the loud speaker up to 400 or 500 miles, and the new high-power station up to approximately 800 miles. Its range includes, not only all B.B.C. stations, but Paris, Radiola, etc. On an indoor aerial it has a range of from 400 to 500 miles and signals come through loudly and clearly. A beautiful receiver, wonderfully built and designed with an **EVERLASTING GUARANTEE**. 3-Valve Receiver £9. 12s. 6. plus Marconi royalty fee 37/6, or absolutely complete £15. 10s. 6. Write for full catalogue and more particulars of the wonderful machines we market and traders for Agency terms and good trade terms.

C. S. DUNHAM, (Radio Engineer),

late of Marconi Sc. Inst. Co., 234/6, Erixton Hill, S.W.2.
Phone: Erixton 3325. New and easy deferred payments.



The "DUNHAM" 3-Valve Receiver.

£50 wouldn't buy the Set back!



Photograph shows Mr. Harding receiving American Broadcasting on his S.T.100. Read his interesting letter reproduced on this page. You could get the same results. No need to buy expensive ready-built Sets when Peto-Scott Pilot Receivers will give such good results.

PAINTING, PAPERHANGING and GLAZING.
Building Trade Repairs promptly executed.

W. H. HARDING, DECORATOR, Etc.
100, Corporation Road, Cardiff.

30 DECEMBER 1924.

Mr. PETO-SCOTT CO. LTD.
65 High Holborn, W.C.1.

Dear Sir,
Just 12 months ago I reported receiving America (W.G.V.) on a set constructed from parts supplied by yourselves for the S.T. 100. You also included the report in an advertisement in "Wireless Weekly" during December last.
Perhaps further reports on the same set with no fresh parts or alterations, except to remove the Patent, may interest you. I have been asked for additional reports from stations in America by the managers.
Received at different periods: W.G.V., K.D.K.A., W.B.Z., W.M.A.F., W.H.Z., C.K.A.C., and — Philadelphia, P.D. possessing. The first five W.G.V. has been received on 13 consecutive nights in October 1924. K.D.K.A. for 13 hours at P.A. strength (complete). All these done over the best test for any Set, I think, at it is impossible to receive distant stations with clarity on a poor set.
I have also received W.G.V., K.D.K.A., and W.B.Z., especially the first, named, at the comparatively early hour of 11.30 p.m. G.M.T. (New, etc.).
All Main B.B.C. Stations, and at least six Continental, including Madrid and Loud Speaker.
Amateur (Telephone) 90 to 150 miles distant, such as Birmingham, London, Manchester, etc., and last, but not least, Cardiff on the loud speaker circuit.
If these results have become common occurrence owing to my having become used to my S.T. 100—would you please send me some more? Thanking you for your attention, and assuring you I always put in a word for whenever possible.
Yours sincerely,
W. H. Harding

Save money by completing this Set yourself at home—
—no previous experience or Radio skill required.

The S.T.100

—the 2-valve long distance set giving the power of 4 valves

THERE has never been a Circuit that has created such enthusiasm as the S.T. 100. Not only has it swept this country from end to end, but its fame has spread to the Continent and to the U.S.A. And rightly so, for it is a wonderful circuit. Consisting only of two valves and a Crystal detector, but with the first valve so arranged as to amplify at high and low frequency and with coils so coupled as to permit of a fine degree of reaction being used, it is an ideal Circuit for the beginner, for the man of moderate means, for the man who wants really good Loud Speaker strength without distortion, and for the man who enjoys long-distance Broadcasting.

One of the most popular Receivers embodying this splendid Circuit is the Peto-Scott S.T.100 shown above. Our files contain many letters from satisfied users similar to the one reproduced here.

This Set will work equally well with bright or dull Emitter Valves and will readily work a Loud Speaker 100 miles from Chelmsford, 20 to 50 miles from a main B.B.C. station and 5 miles from a relay station.

Send for the Book to-day. 3d. post free.



Illustration of S.T.100 in fine double-drop front oak cabinet with valves enclosed and batteries at rear.

IF you can handle a screwdriver and a pair of pliers you can easily build this Set at home. It can be supplied to you with its panel drilled, tapped and engraved all ready for the components to be mounted upon it.
The variable condensers, too, can be easily fitted together without the slightest worry or trouble. The Transformers, rheostats, fixed condensers, resistance and crystal Detector are of course supplied ready manufactured and fully tested.
In fact, all you have to do to complete the Set is to wire up according to the special simplified wiring diagram which we supply with the parts.
Even a boy of 14 could build it in a few hours without the slightest difficulty.
If, however, after you have built the Set you are not satisfied that you are getting the best results, our Service Department—staffed by real Radio experts—will be ready to help you. You can send it to us to test and correct at quite a nominal sum. We want everyone who buys these partially built Sets to get the identical results enjoyed by those who choose our factory-built models.

- Price of S.T.100 (similar to Mr. Harding's). Ready for assembly, including every item necessary (except coils and valves) and inclusive of all Marconi Royalties, **£4:17:6**
- Polished Cabinet, extra **7:6**
- Finished Instrument, Aerial tested and fully guaranteed (inclusive of all Marconi Royalties), as illustrated on the left. **£8:5:0**
- Upright cabinet model in oak cabinet. Ready for assembly, including every item necessary (except coils and valves) and inclusive of all Marconi Royalties, **£5:3:0**
- Polished Oak Cabinet, extra **£1:10:0**
- Finished Instrument, Aerial tested and guaranteed (inclusive of all Marconi Royalties), as illustrated on the left. **£9:12:6**

Besides the two S.T.100 Receivers illustrated here we can offer you a wide range of Instruments (finished and also in complete sets of parts for home construction) from Crystal Receivers to the Anglo-American Six. Send 3d. for a copy of our latest Pilot Booklet, giving a full description of every Set and other details. Other helpful literature published by us include a Catalogue of Components, 3d., and Peto-Scott's Wireless Book, 1s. 3d.

PETO-SCOTT Co., Ltd.

Registered Offices and Mail Order: **77, CITY ROAD, E.C.1.**
Branches:—LONDON: 64 & 99, High Holborn, W.C.1; and 233, Wood Street, Walthamstow. CARDIFF: 54, Queen Street; LIVERPOOL: 4, Manchester Street. PLYMOUTH: Near Derry's Clock. Gilbert Ad. 2131.

Edison Bell Radio

DISTINCT AND DIFFERENT

Just what wireless Ought to be!

Something New and Unique in Wireless The EDISON BELL DOUBLE-PURPOSE UNIT

is the latest advance made in Radio Manufacture, and the fact that behind it is the 30 years' reputation of Edison Bell will assure listeners-in that they can expect something just as perfect as perfection can be.

The Edison Bell Double Purpose Unit (D.P.U.), as its name indicates, has the twin aim of serving as (1) a Valve Detector and (2)—Dual Amplifier—and the interested experimenter will find even other ways of utilizing this new instrument.

The D.P.U., which is the result of long and patient research must not be confounded with the many Straight Single Valve Sets now on the market. It is far superior to any of these where volume, range, and clarity of tone are concerned.

The D.P.U. is fitted with a High Frequency Transformer suitable for 300/500 metres, while additional Transformers can be added to cover ranges embracing 500/900, 900/1600 (Chelmsford Wave Length), and 1600/2800 metres.

Under the most adverse conditions the efficiency of the Edison Bell D.P.U. will be found far greater than the average Single Valve Detector, and equal to many Two Valve Sets.

The tuning and reaction system is quite free from hand effect, and gives a very certain control over wave length and reaction. The use of wire-wound impedance instead of a Grid Leak, gives good musical quality and eliminates noises due to grid current. When a Crystal Set is joined to the D.P.U. the pair become a One Valve Dual and Crystal Set, the uses of which make it the most efficient One Valve Dual Circuit known. Full particulars for working the D.P.U. are supplied with each Instrument.



Cat. No. R/184.

Retail 6 gns.

(Marconi Licence 12/6.)

(This price does not include Valve or Batteries.)

The EDISON BELL "MUSICALLY PERFECT" SPEAKER

No METAL Horn. No METAL Diaphragm. No HARSH, Strident or Mechanical Effects.

Our long experience in the manufacture of sound-reproducing apparatus has taught us the ideal quality to aim at, and our new Speaker will easily convince Music Lovers that it gives the most perfect all-round reproduction that can be obtained.

The Edison Bell Speaker is novel in design and quite distinct and different from anything else. It emits a purely natural tone devoid of any nasal sounds so often heard with Loud Speakers at present on the market.

Frequency Tests show that it has no marked resonance point on the musical scale, and that the efficiency increases towards the bass, making the reproduction of music exceptionally sweet. It gives forth nothing but the sound supplied to it from the Set.

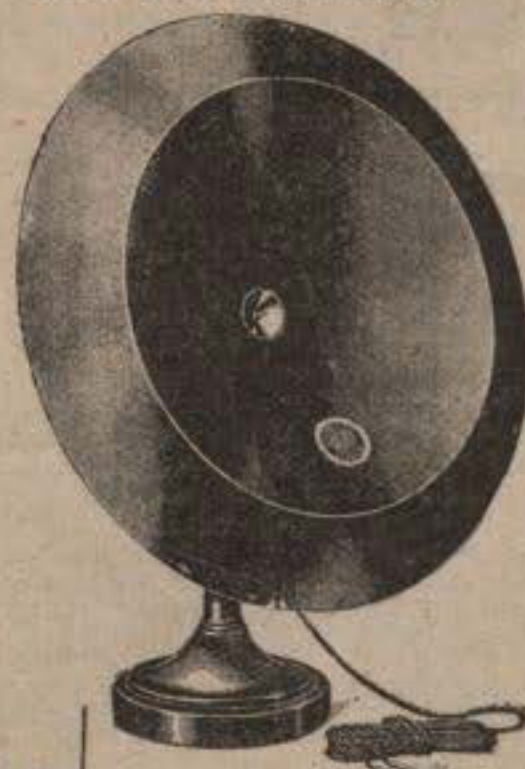
Order TO-DAY from your DEALER

or direct from our West End Depot: EDISON BELL, 43, Cranbourn St. (opposite London Hippodrome).

WHOLESALE & EXPORT ONLY.

J. E. Hough, Ltd., EDISON BELL Works, Glengall Rd., S.E. 15

And at Huntingdon.



Cat. No. R/308.

Retail 63/-



Something New flashed from every page!

The Wireless Magazine

IS SOMETHING DIFFERENT
 It is a real high-class monthly for everybody—with wireless as its dominant motif. As Editor, Bernard E. Jones—of "Amateur Wireless" fame—guarantees by his unrivalled experience its technical completeness and reliability.

CONTRIBUTORS: In addition to technical contributions from some of the best-known wireless writers, the Editor has secured stories, etc., on wireless topics from
 F. W. THOMAS, WILL OWEN, EDGAR WALLACE,
 WILLIAM LE QUEUX, W. HEATH ROBINSON,
 Dr. E. E. FOURNIER d'ALBE, J. C. W. REITH.

In a word, "The Wireless Magazine" is a magnificent combination of soundness and seriousness, of brightness and buoyancy—a production of unrivalled charm, interest and value.

- Special Features**
- For the Constructor—** Valuable constructional articles illustrated with photographs, diagrams and drawings. Latest developments and inventions will be closely followed and described.
 - For the Beginner—** Simple, easily understood articles on all the preliminary difficulties of wireless construction and manipulation, including practical articles on the building of every type of set.
 - For the Listener—** Attractive articles on the Personalities and Programmes of the Home and Foreign Stations, increasing the listener's interest, appreciation and enjoyment.
 - For Everybody—** Bright, original and diverting stories, articles and sketches dealing with every side of Wireless.
- Explanatory Articles**
 —dealing with Whys and Wherefores, contributed by the best-informed wireless experts at home and abroad.
- Humour and Fiction—**
 The lighter side of wireless will be developed. Special articles and sketches by some of the cleverest writers and artists of the day.
- Illustrations—**
 The illustrations and separate colour plates and blueprints presented with each issue will all be first-class productions, eclipsing anything of the kind ever before published.
- Special Service Department—**
 A Testing-room, fully equipped with all necessary instruments, and a staff of experts have been organised to provide readers with a Question and Answer service of the highest possible efficiency.

FREE

TWO
 MAGNIFICENT
 PLATES
 A BLUEPRINT
 Measuring 22" x 8"
 AND A LARGE COLOUR PLATE
 Of a Constructional Nature, measuring 22" x 16",

With No. 1. Now on Sale
Get your Copy To-day 1/-

Cassell's,
 Publishers,
 London.



Net
 MONTHLY

You can get a complete Burndept loud speaker installation for £14 2s.

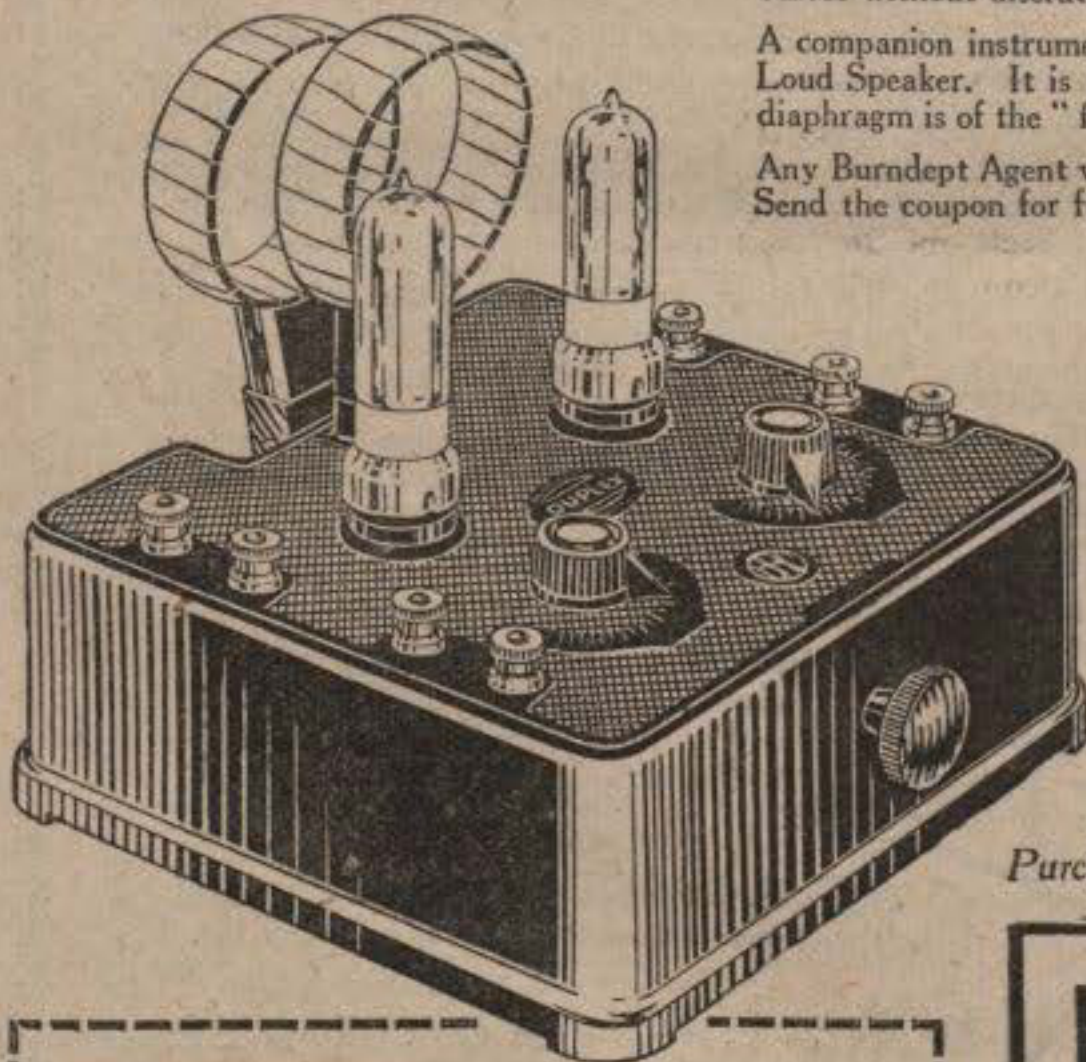
THE desire of every listener who wants to make the most of the broadcast programmes is to have a loud speaker installation so that he and his family can enjoy the concerts in the most convenient way. Now that the Ethophone-Duplex and the Burndept Junior Loud Speaker are on the market, the cost of the necessary apparatus is more within the limits of the man of modest means. You can get a complete Burndept loud speaker installation for £14 2s. Wonderful value! This price includes *everything* for equipment with a guaranteed reception range of 20 to 25 miles from a main broadcast station and about 100 miles from the high-power station. In many cases, listeners have obtained better results with this apparatus under favourable conditions. The operation of the installation is simplicity itself.

The price, £14 2s., includes the following: Ethophone-Duplex Receiver (£5 5s.), Marconi Licence (£1 5s.), Burndept Junior Loud Speaker (£2 15s.), two R5 Valves (12s. 6d.), a 6-volt 30-ampere accumulator (£1 15s.), a 45-60 volt high tension battery (13s. 6d.), coils for 300-500 metres (8s. 6d.), and aerial equipment (15s.).

The Ethophone-Duplex is an inexpensive two-valve receiver of novel design. It is tuned by a special type of variable condenser, and the reaction coil is controlled by a geared movement. A dual rheostat makes possible the use of bright or dull-emitter valves without alteration to the set.

A companion instrument to the Ethophone-Duplex is the clear-toned Burndept Junior Loud Speaker. It is 19 inches in height and has a neat black crystalline finish. The diaphragm is of the "floating" pattern and can be adjusted.

Any Burndept Agent will demonstrate the Ethophone-Duplex and the Burndept Junior. Send the coupon for full particulars of the complete installation.



A world-famous combination—Ethophone V. and Ethovox Loud Speaker.

THE Ethophone V., a four-valve receiver of remarkable power, gives its owner the choice of concerts from both British and Continental stations and also from American stations under favourable conditions. The instrument has been specially designed for use with dull-emitter valves. Several novel features are incorporated, one of the most notable being the Selector which is used to reduce "interference." The workmanship is beyond criticism. When used with the Ethovox Loud Speaker, the Ethophone V. gives splendid results, and those who hear the combination in operation are amazed at its powerful and pure reproduction. The price of the Ethophone V., without valves or batteries is £30, to which must be added £2 10s., Marconi Licence. The price of the Ethovox Loud Speaker (either 120 or 2,000 ohms resistance), is £5. Send the coupon for further particulars.

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

BURNDEPT

WIRELESS APPARATUS

BURNDEPT LTD.,

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

Telephone: Gerrard 9072.

Telegrams: Burndept, Westrand, London.

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

CARDIFF: 67, Queen Street.

NORTHAMPTON: 10, The Drapery.

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

Please send me particulars of:

- (1) a complete Burndept loud speaker installation for £14 2s.
- (2) the Ethophone V. and the Ethovox Loud Speaker.

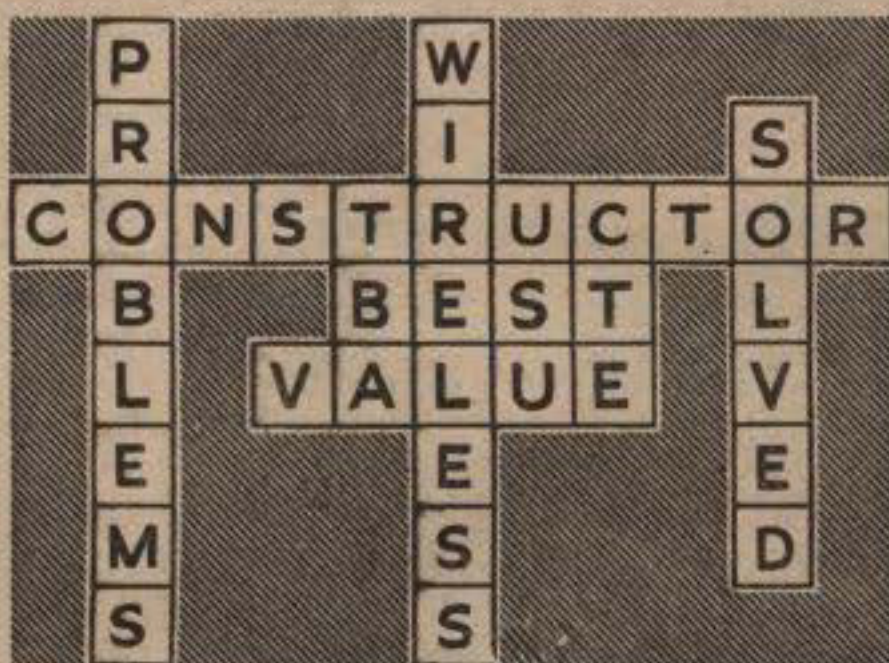
NAME

ADDRESS

DATE

"Radio Times," 30/1/25.

Read "The Wireless Constructor" and use no cross words when building your set.



Buy a Copy To-day

Selection from Contents:
 HOW TO BUILD A COMPACT SINGLE VALVE REFLEX RECEIVER.
 By Percy W. Harris, Member I.R.E.
 THE ROLLS-ROYCE OF RADIO.
 (How the Superheterodyne works.)
 By John Scott-Taggart, F.Inst.P., A.M.I.E.E.
 THE ANGLO-AMERICAN SIX (Contd.).
 By Percy W. Harris, Member I.R.E.
 HOW TO GET THE BEST OUT OF A CRYSTAL SET.
 By G. P. Kendall, B.Sc.
 A LOW-LOSS CRYSTAL RECEIVER.
 By Percy W. Harris, Member I.R.E.
 SIX SIMPLE CRYSTAL CIRCUITS.
 HOW TO TUNE A SIMPLE VALVE SET.
 By Stanley G. Rattee, Member I.R.E.
 THE HUMOURS OF MR. GUMBLETHORPE,
 and many more articles of interest.
FREE BLUE PRINT
 with every copy.

THERE are no puzzles in "The Wireless Constructor," they are all solved for you. The descriptive articles are written in such a clear and simple manner that even the absolute beginner can construct for himself a thoroughly efficient wireless receiver.

Over a quarter of a million people regularly buy this magazine each month, and it is the magazine that even the advanced wireless man strongly recommends to his less experienced friends.

"The Wireless Constructor" covers the whole field; it caters for the wants of the wireless enthusiast of every age and stage. The youngster is shown how to construct wireless receivers efficiently and well from the simplest materials. The more advanced youth is able to add to his knowledge of wireless and improve his set to the satisfaction of the whole household, while even the advanced experimenter finds in its pages many useful articles, hints and tips.

SIXPENCE MONTHLY

"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.

**"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. 3, King St., W. 1b-ansgate.
NOTTINGHAM: W. J. Pears & Co., Traffic St.
OULCHESTER: 121, High Street.
SCOTLAND: Malcolm Brunsden, 57, Robertson Street, Glasgow.
BIRMINGHAM: 14-15, Snow Hill.
N.E. ENGLAND: Milburn Ho., Newcastle-on-Tyne.
LEEDS: North British Engineering Equipment Co., Exporter Buildings, Leeds Lane.
IRISH FREE STATE: Stocks carried by A. W. Doyle, Kelly & Co., 174, Pearse St., Dublin.
BELFAST: J. Robertson, Ltd., 49, 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



Russell's Hertzite



Retail Price per Piece **1/-**

**Insist on
Russell's Hertzite**

There's only one 100% pure crystal Hertzite—only one which gives you maximum results. Substitutes will be offered to you, but see the name Russell's on the sealed box—you cannot buy a better crystal, whatever you pay.

The L. G. RUSSELL Laboratories
 1-7, Hill Street, BIRMINGHAM.
 (Opposite Empire Theatre.)

3
FILAMENTS

NELSON MULTI.
 A famous name for a famous Valve.
Obtainable from all dealers.

15
COMPLETE

The "NELSON MULTI" contains three separate filaments, each of which can instantly be brought into use by a switch device incorporated in the valve cap.

THE RULER OF WIRELESS WAVES

The "NELSON MULTI" will function as a Detector, L.F. Amplifier, or H.F. Amplifier. Adapted to fit any standard Four-pin socket.

Filament Voltage
4-6

Anode Voltage
60-120

THE NELSON VALVE Co., Merton Pk., London, S.W.19.

Fit a 'Malone' TO YOUR 'PHONE
 and you get results rivaling 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

RAF. Valves by Ostram Co. 6/6, the finest H.F. and Det. Valve ever offered under 13/-. 4-2 "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. 3-valve RAF. Receivers with Valves 27 post free. 3-valve Set £3 15s. Valves extra. Loud Speakers 18/-. Milliameters from 20/-. Recorders 26. Alternators 70/-. Wavemeters £3. Transmitters 15/- to £5 10s. Instruments of all types. £10,000 Stock of Apparatus. Discounts.

Call and inspect or send 6d. Stamp for 20-page Illustrated Catalogue of Radio Bargains.

LESLIE DIXON & CO., 8, Colonial Avenue, Minorca, London, E.1.

Exide

THE LONG-LIFE BATTERY

To interest and amuse our friends we offer the following prizes for the correct solution of the cross-word puzzle below.

1st. One Exide L.T. Wireless Battery—6 volt. 60 amp. hrs. capacity Value £3/3/0

2nd. One Exide Hand Lamp Complete Value £1/12/0

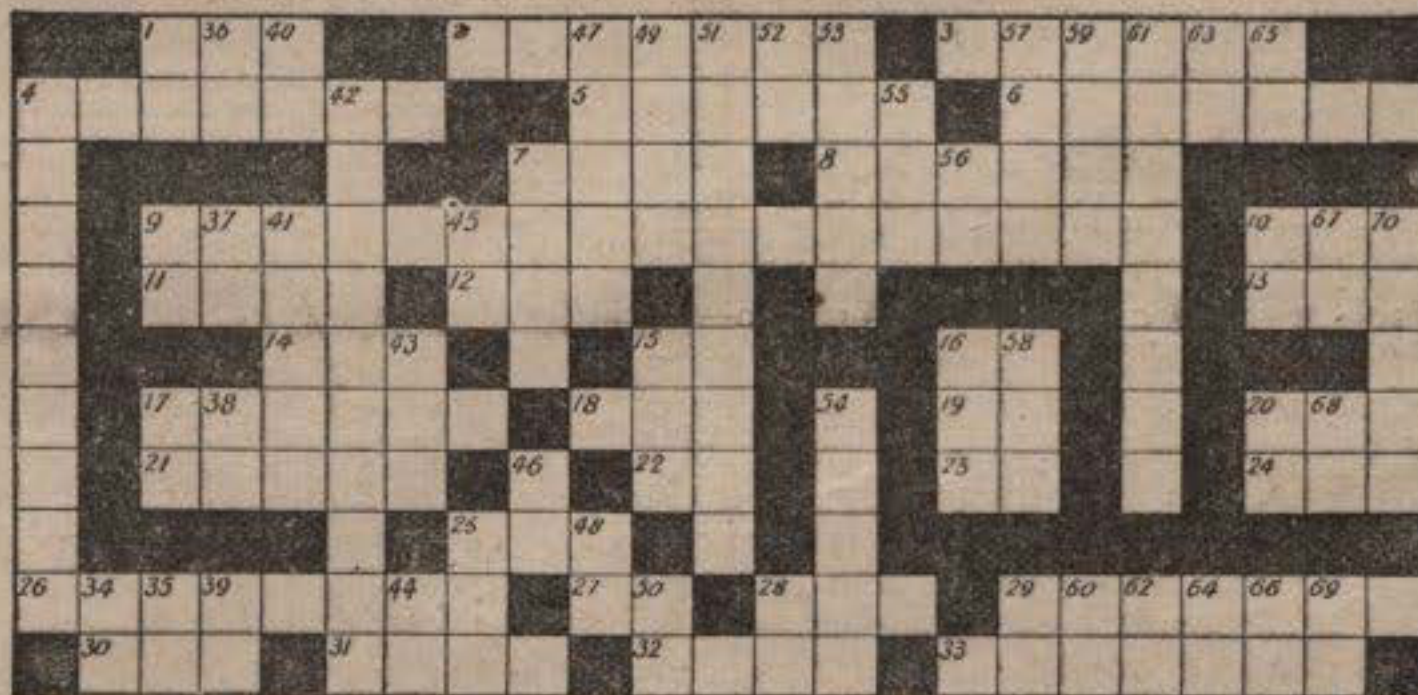
3rd. One Exide H.T. Wireless Battery—24 volts Value £1/4/0

Also 20 Consolation Prizes, each comprising one "Chloride" folding steel foot rule, in case.

No envelope will be opened before February 10th, when the prizes will be awarded to the first 23 correct solutions opened.

Our decision must be accepted as final.

Envelopes to be marked "Competition" in top left-hand corner, and addressed to:—The Chloride Electrical Storage Co. Ltd., Clifton Junction, near Manchester.



The "words" in this puzzle include several generally accepted abbreviations or initials similar to the following:—

"R.H.A."—Royal Horse Artillery.

The "Clues" are not put forward as exact definitions but as affording an indication to the required word.

HORIZONTALS

- 1 Seven Hundred
- 2 A rare fruit tree.
- 3 Hard workers
- 4 A mineral found in Norway
- 5 Hero of a Roman epic
- 6 Your interest is
- 7 Useful for slotmeters
- 8 Probably dumped.
- 9 A quality lacking in celluloid
- 10 A scriptural beast of burden
- 11 A great poem
- 12 Useful at Bridge
- 13 Goes with a dash
- 14 Demonstrative adjective
- 15 A royal title
- 16 Thus
- 17 Discard
- 18 A woman's secret
- 19 Another scriptural beast
- 20 Yours or mine
- 21 Dig again

HORIZONTALS—continued

- 22 Indefinite article
- 23 Prefix signifying facility
- 24 A smaller scriptural beast
- 25 Upper crust
- 26 Comfortless
- 27 The song of the lost sheep
- 28 An emollient
- 29 Crippling
- 30 Demonstrative adjective
- 31 A monkey's tail
- 32 Found in cheese
- 33 A crime of violence

VERTICALS

- 4 Surpass
- 34 Electro-Technics
- 1 A note of a scale (musical)
- 9 That's it
- 17 The family friend
- 35 Abbreviated bobs
- 36 Keeper of the Rolls

VERTICALS—continued

- 37 Not half-marked silver
- 38 A British Regiment
- 39 Anglo-Saxon
- 40 101
- 41 Often quoted
- 42 Having feet made to specification
- 43 A physical unit
- 44 Often before day
- 45 Unmarried artist
- 25 Little Nigger Boys
- 7 A darling
- 46 End of the fight
- 17 A type of pie
- 48 Lead
- 49 To put in possession
- 15 The Heavies
- 50 A light metal
- 51 Beginning
- 52 A respected profession
- 28 Preposition
- 53 A gold coin

VERTICALS—continued

- 54 The nest of a bird of prey
- 55 A clerical area
- 56 England's glory
- 16 Worth listening for
- 57 Half a rubber
- 58 Bottled bullock
- 20 One better than a bachelor
- 59 Long ages
- 60 In or near
- 61 Has no meaning
- 62 Perfection
- 63 and 64 Theo and I
- 65 Steamer
- 10 Date indication
- 20 Quite right
- 66 A negative prefix
- 67 Postal address sign
- 68 West Indies
- 69 Over there
- 70 Grand at horse shows

Showrooms and Depots:
LONDON:
 219/229, Shaftesbury Avenue,
 W.C.2
BIRMINGHAM:
 58, Dale End

THE Chloride ELECTRICAL STORAGE COMPANY LIMITED.

CLIFTON JUNCTION, NEAR MANCHESTER

THE LARGEST BATTERY WORKS IN THE BRITISH EMPIRE.

Showrooms and Depots:
BRISTOL:
 22, Victoria Street
MANCHESTER:
 1, Bridge Street

See page 274 for solution to last week's Cross Word Puzzle



*Here will we sit, and let the sounds of music
Creep in our ears: soft stillness, and the night,
Become the touches of sweet harmony.
Shakespeare, Merchant of Venice.*

The New Master of Music

A new factor has entered into music—the Sterling "Primax" Hornless Loud Speaker. For here is a radio instrument truly capable of charming the listener with the sympathy of a voice, the melodic appeal of a piano, and the inspiration of orchestral music. A test at any good radio dealers will confirm the fact that there is no loud speaker that can compare in tone, or volume and purity—the "Primax" is incomparable, supreme.

The Sterling "Primax" Hornless Loud Speaker has a pleated diaphragm mounted in a frame and supported on a graceful stand. The whole instrument is bronzed finish. 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

STERLING
PRIMAX
Hornless Loud Speaker (Bronzed Finish)

At your Radio Dealers

Advt. of **STERLING TELEPHONE & ELECTRIC CO., LTD.**

Manufacturers of Telephones and Radio Apparatus, etc.

210-212, TOTTENHAM COURT ROAD, LONDON, W.1

Works: DAGENHAM, ESSEX

Sole Manufacturers and Licensees of the "Primax" Loud Speaker

