

What Happens When You Hear. By Sir William Bragg, F.R.S.



THE OFFICIAL ORGAN OF THE B.B.C.

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EVERY FRIDAY.

Two Pence.

OFFICIAL PROGRAMMES OF THE BRITISH BROADCASTING COMPANY.

For the week commencing
SUNDAY, November 2nd.

LONDON	CARDIFF
ABERDEEN	GLASGOW
BIRMINGHAM	MANCHESTER
BOURNEMOUTH	NEWCASTLE
	BELFAST

SHEFFIELD (Relay)	PLYMOUTH (Relay)
EDINBURGH (Relay)	LIVERPOOL (Relay)
LEEDS-BRADFORD (Relay)	
HULL (Relay)	NOTTINGHAM (Relay)
STOKE-ON-TRENT (Relay)	

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THE WIRELESS WAY TO PEACE.
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BROADCASTING SECRETS AND STORIES.
By Leonard Crocombe.

SONGS I LIKE TO SING.
By George Parker.

"A PRIZE WELL WON."
By a Wireless Club Secretary.

OFFICIAL NEWS AND VIEWS.

Good Music Means Good Health.

By Dr. AGNES SAVILL.

[Dr. Agnes Savill is one of the leading women doctors, and she has paid much attention to the subject of music in its relation to health and medicine. Her book, "Music, Health, and Character," is well known. In the following article she shows how valuable to listeners is the broadcasting of good music.]

THOSE of us who have arrived at middle age realize that of late years a great change has come about. In the days of our parents, the practical and the useful were cultivated at the expense of the beautiful. In our youth the pursuit of beauty for its own sake was regarded with decided disapproval and distrust.

Such an attitude was the logical outcome of an age of industrialism. The introduction of steam and machinery was necessarily followed by an attitude of mind which admired the practical. Only what was useful seemed praise-worthy. The tide has begun, unmistakably, to turn; it is realized now that rows of plain houses arranged with furniture substantially heavy and bulky, offend the laws of beauty, and give pain to the æsthetic eye. It is recognized at last that the human soul demands, for its finest development, some satisfaction of its artistic sense.

With the advent of broadcasting, science has at last placed this possibility within the reach of all. By means of the wireless, everyone can learn to appreciate music—the most mysterious and enchanting of the arts—and by so doing, acquire a gift which enriches mind and character. Music and other arts were recently regarded only as luxuries, out of touch with the practical in life. But the ancients had no such illusion.

In Greece, humanity attained a high level of general culture. In proportion to the number of the population, it is said that in Greece there were more geniuses than in any other nation. Every school child knows that in Greece beauty was held in high esteem. That a high value was

also placed on music is not so widely known. The exquisite passages in which Plato describes the influence of music upon the formation of character are familiar enough to classical scholars, but would come as a surprise to the average modern reader. I had not known of them until I began to search for evidence when writing my book, "Music, Health, and Character."

And he who mingles music with gymnastic in the fairest proportions, and best attunes them to the soul, may be rightly called the true musician and harmonist in a far higher sense than the tuner of strings. . . . And therefore musical training is a more potent instrument than any other, because rhythm and harmony find their way into the inward places of the soul, on which they mightily fasten, imparting grace, and making the soul of him who is rightly educated graceful, or of him who is ill educated, ungraceful.—(Plato: "The Ideal Republic.")

Similar emphatic testimony to the value of music in the education of youth is found in the writings of Aristotle, a philosopher whose thoughts lay along very different lines.

In the modern world great stress is laid on the training of the memory and the reason; discipline in those directions begins from early years. Quite another ideal inspired the educational curriculum of ancient Greece. Systematic training of the rhythmic sense was carried out during the first ten to fourteen years of life. So contrary is the modern attitude, which sets reason on a pedestal, that we can scarcely understand what is meant by the rhythmic sense, or what is gained by its cultivation. Rhythm conveys to every normal human being a sense of satisfaction, whether it reaches the mind by the ear, as in verse and music; or by the eye, as with perfectly proportioned objects; or by movement, as in the dance.

It is difficult for us to imagine the effect of an early training which aimed at developing a fine sense of rhythm in movement, speech, and
(Continued overleaf in column 3.)

Broadcasting Secrets and Stories.

Behind the Scenes With Arthur R. Burrows.

IT is a thrilling story that Mr. Burrows, Director of Programmes to the B.B.C., has to tell in his new book, "The Story of Broadcasting" (Cassell).

His book, as he explains in the preface, deals with entirely different matters from those covered in Mr. Reith's eagerly-awaited volume, "Broadcast Over Britain." Mr. Reith deals mainly with the influence and scope of the service, with the standard and ideals which the B.B.C. have had before them since the outset, and with interesting matters of policy. Mr. Burrows's book describes his own important part in the initial stage of broadcast telephony, its value during the war, and fascinating details regarding the B.B.C. from the early days to the present moment.

Marconi and Macaroni!

After explaining in a most interesting manner the principles of sound transmission by wireless waves, Mr. Burrows adds:—

The complete process of wireless telephony, we may say, consists of producing an electrical counterfeit of a sound, of throwing this counterfeit across space on top of a high-speed ripple, and in reconverting the impulses from the ripple as received at a distant point into a direct electrical current, such as will set into motion, through the medium of small electro-magnets, the diaphragms of a pair of headphones. These diaphragms, beating the air in sympathy with the microphone at the transmitting station, reproduce sounds exactly equivalent to those made by the voice or instruments in the studio.

Among the good stories Mr. Burrows tells is one about Signor Nitti, who, as Italian Prime Minister, paid a visit to the Christchurch Station in the early days. A frame aerial was employed. It consisted of a few turns of cotton-covered copper wire round a frame about three feet square. The function of this aerial was explained to Signor Nitti, who exclaimed: "The result—it is both by Marconi and Macaroni!"

The First Broadcast Play.

In March, 1921, the Radio Society of Great Britain made representations to the Post Office on behalf of experimenters, and after some months of discussion it was agreed that a small broadcasting station should be allowed to transmit from one of the Marconi Company's research stations at Writtle, near Chelmsford. Captain P. P. Eckersley, now known almost the world over as an engineer—and humorist—happened to be in charge of the research department in question, and on the official receipt of the permit, he began his now famous broadcasts. On October 17th, 1922, Writtle established the record of being the first British station to broadcast a play, excerpts being given on this occasion from *Cyrano de Bergerac*.

In the spring of 1922 a rival to Writtle appeared in the field at uncertain intervals. This was a station known as "2LO," a 100-watt set contained in a small tank cabinet, and housed in the cinema theatre on the top floor of Marconi House, London.

A Wireless Competition.

The artists taking part in the first real concert at "2LO" on June 24th, 1922, were Miss Beatrice Evelyn (Cellist), Miss Ethel Walker (Pianist), and Mr. Charles Knowles.

Soon after, when transmitting at short intervals throughout two days the progress of the air race around Great Britain, Mr. Burrows received the following "testimonial":—

Dear Sir,—You will be pleased to hear how much I have enjoyed your news of the air race. I have enjoyed equally the three-minute intervals, which have given me time to reach the kitchen and back to the joint for dinner.

It is interesting to hear that it is highly

probable that future wireless plays will have as their setting the actual sounds occurring in everyday life in such a place as may be chosen for the play. Mr. Burrows suggests that an interesting competition could be centred round the employment of a portable wireless station:—

For this purpose the station might be travelling around London to various localities having distinctive noises, the listeners being invited to state where the transmitter happened to be at certain specified times.

In a chapter describing a night in the studio, a good story is told concerning a Sunday evening when Mr. Burrows was in charge. A well-known bishop was giving the customary religious address, and he concluded as follows: "... And if we obey these laws... we shall all meet in Heaven." Then, turning to Mr. Burrows: "I don't think I spoke too long, did I?" A listener wrote to say that the announcer pulled out the microphone switch at the end of the words "I don't think," and the bishop's final sentence was heard by listeners as follows: "... And if we obey these laws... we shall all meet in Heaven. I don't think."

The Gentle Art of Wooing.

Until the increasing scope and importance of his duties made such pleasant interludes rare, the B.B.C. Director of Programmes, as all listeners know, was the popular "Uncle Arthur" of the Children's Hour at the London Station, and this uncle of the "golden voice" has many good stories to tell of his countless unseen nephews and nieces. There is, for instance, the charming little letter he received, written in round, childish handwriting:—

Will you please call up next Monday afternoon Joan (the surname had been omitted deliberately), and tell her to look on the window-sill outside. Joan will be seven on Monday.

The little gentleman who wrote this (Mr. Burrows comments) requires no lessons in the gentle art of wooing.

When pressure of work was at its height in the first few months of our activities, a letter reached me one morning from a troubled youth living a few miles north of London regarding some indignities which he had suffered from a neighbour. It happened that their gardens were at right-angles, and at the end was a common-pole which each had selected as a support for a wireless aerial. The complainant had suspended his aerial by the ingenious method of attaching it to half a brick which had been thrown over the top of the post. The idea had been promptly seized upon by the neighbour who, in throwing his brick, had fetched down the aerial already suspended. The process had been repeated by each in turn, with the same result.

For some time I was much puzzled why this letter on this problem of aerials had not been addressed to the chief engineer, until it dawned upon me that, as Director of Programmes, it was my business to decide who should throw the next brick.

Mr. Burrows tells us that in the writing of his book he had the assistance of Miss Mabel Green, who has been blind since infancy, and that every word has been dictated to Miss Green at normal dictation speed.

I cannot resist remarking that, before I started reading "The Story of Broadcasting," I had a small bet with myself that the genial Mr. Burrows would include the quotation from Longfellow which will always be linked with his name; and, sure enough, there it was at the end of Chapter Two:—

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

Ah, well! as John Henry would say.

LEONARD CROCOMB.

Good Music Means Good Health.

(Continued from the previous page.)

song; but broadly speaking, it would create an appreciation of the beautiful and the graceful, with their mental counterparts, harmony and balance of mind, a sensitive courtesy, self-control, and calm in the various activities of daily life. Music was a term used to include all branches of art which fostered such qualities, and to the music of sound a pre-eminent position was given.

So far have we strayed from this old ideal that most people of my generation remember music only as a time of boring scales and exercises, and of lessons which dealt only with the grammar and left out the essential elements, the meaning and rhythm which infuse life into the skeleton of notes. Appealing solely to the memory and reason, such a system of training is devoid of the emotional imagination which dwells in rhythm and beauty. Hence it does not bestow upon the pupil any of that happiness which always accompanies a system which follows a more natural method of training. Fortunately, the modern child has better opportunities; the systems of Jacques Dalcroze, Yorko Trotter, and others encourage the rhythmic sense in such a way that even the unmusical child soon becomes able to obtain enjoyment from music.

Now there are two reasons for the average man's prejudice against good music. First, the unnatural lines of education above mentioned. Secondly, music has become very complex; during recent years it has advanced with as rapid strides as science. Hence has arisen the prejudiced theory that good music is difficult to listen to with any pleasure. Men believe that when they return home tired from the day's work, they can obtain no pleasure except from brief and exciting tales and songs.

This delusion results from defective knowledge of their own minds. As a matter of fact, nothing tends more to produce a sense of staleness and boredom than the constant repetition of what arouses a rapid succession of excited states of mind. The man who spends whole evenings reading jokes and sensational paragraphs is much more bored than his companion who has passed the same period of time in reading a really well-written chapter of history, poetry, science, or romance. So also does it become fatiguing to follow a long series of comic songs and so-called popular music, whereas, refreshment and strength are derived from listening to the great masters of music.

Indeed, all that is highest in art, in literature and music, refresh and encourage the human mind. That the contrary is so commonly believed can be explained only by the fact that the imagination in modern civilization is so rarely employed; people take for granted and never stop to examine for themselves the truth or falsehood of any strongly expressed opinion. There is abundance of good music which is simple, beautiful and easily enjoyed by the most weary worker and by the least musically educated. It is, indeed, more natural for man to speak or sing in rhythm than in prose, and when too fatigued to use his reasoning powers, a man can still find joy in simple music and song.

Now even the more complex of the great works of music will be found to convey joy to the listener when he has heard them frequently. I speak from experience, and since the publication of "Music, Health and Character," have received many letters from strangers who tell me of their similar progress. Starting from a state of complete indifference or dislike of "classical music," after hearing it frequently,

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Official News and Views. GOSSIP ABOUT BROADCASTING.

Special Armistice Day Programme.

A SPECIAL programme appropriate to Armistice Day will be broadcast by London on Tuesday, November 11th. The items will include a very fine work for soprano, chorus and orchestra by Sir Edward Elgar, entitled *For the Fallen*. This will be given at approximately 8 p.m. Other items include such well-known works as the impressive *In Memoriam* (Sullivan), a Rhapsody, *A Shropshire Lad*, by George Butterworth, a young and promising English composer who was killed in the war, and new and interesting writings by Julian Clifford and Ernest Farrer.

"Dornheim Days."

Later in the evening the programme will become lighter in type, the first part concluding with a selection from a revue written by Robert Chignell for British troops of the Army of Occupation in Cologne, *Dornheim Days*. This will be conducted by the composer, who produced it in Cologne Opera House, where it was a great success with the troops. Mr. Chignell is also known to listeners as a versatile singer, who is equally at home in a recital of songs as he is in the villain's part in John Henry's opera.

"Army Reminiscences."

At 10 p.m. the "Roosters' Concert Party" will repeat one of the best portions of their widely-appreciated "Army Reminiscences," including the route march with its soldiers' songs and gay humour. At 10.30 p.m. dance music of the Savoy Bands will be relayed until midnight.

Old Memories Revived.

The Armistice Day programme at Belfast has been planned to include Memories, an Explanation, a Tribute, and Celebration. In the afternoon Old Memories will be revived by the "2BE" Quintet, who will play familiar war tunes and marches. During the Children's Corner, a brief talk will be given on War and Armistice. The evening programme will begin with a Tribute, including Stanford's *Last Post*, performed by chorus and orchestra, and then, after five minutes' interval, the remainder of the evening will be devoted to celebration. Cheerful music by the Station Orchestra, and the Misses Grace Ivel and Victoria Worth in selections from their amusing repertoire will bring the programme to a happy close.

"The Bartered Bride."

Each Wednesday night at Belfast the programme is devoted to music of a somewhat more intellectual character than on the other evenings of the week; the augmented Station Orchestra usually playing a classical symphony. On Wednesday, November 12th, Mr. Cedric Sharp will broadcast 'cello solos, and the *pices de resistance* by the augmented orchestra will be the first performance from the Belfast Studio of the beautiful overture to *The Bartered Bride*, by Smetana.

Artists from Active Service.

On November 11th the Bournemouth Station is giving an appropriate programme, and it is interesting to note that all the artists have seen active service, and many were severely wounded in the war. The decorations include a D.C.M., M.C., and M.M.

Music and Human Nature.

On the same date, in connection with the fortnightly series of talks at Cardiff Station, by Sir Walford Davies, a short programme of post-war chamber music will

be given by a trio from the University of Wales, Aberystwyth, illustrating the talks on "Music and Human Nature." Similar arrangements will be made to illustrate the talks at intervals throughout the series.

The Struggle for Freedom.

At Cardiff Station on the same evening a programme will be given describing in music and song the struggle for freedom throughout the ages. The orchestral music includes the "Rakovsky March," Beethoven's "Eroica" Symphony and Wagner's "Good Friday Music." As an expression of the efforts for liberty, the songs typify the realization of the dream—or what might have been. The "Rakovsky March" is a striking example of the influence of music. When first presented in Vienna, this work created such a furor of excitement that all further performances were immediately prohibited, it being considered a menace to the Constitution. Mr. J. Dale Smith will be the vocalist on this occasion.

The Gluck Anniversary.

An interesting programme has been arranged at Cardiff for Saturday, November 15th. During the early part of the evening Mr. John Coates, the famous tenor, will give a recital showing the development of English song from Elizabethan until modern times, and the Station Orchestra will render two of Purcell's old English suites. For the second portion of the programme an hour of Gluck music will be given in commemoration of the Gluck anniversary. Mr. Warwick Braithwaite will precede the performance with a talk on the composer's life and work.

Mozart and Holst.

At the Bournemouth Station on Sunday afternoon, November 2nd, Mrs. Anna Farnell-Watson will be the soloist with the Wireless Orchestra in the Mozart Piano Concerto in A Major. At the evening concert the Wireless String Orchestra programme includes Holst's Fugal Concerto for Two Solo Violins and Strings.

Bournemouth's Light Symphony Concert.

On Friday, November 7th, at the same station there will be a Light Symphony Concert, when

Beethoven's Symphony No. 2 in D, and Saint-Saën's 'Cello Concerto in A Minor, played by Miss Beatrice Kvidine, provide the leading orchestral features. Mr. Herbert Thorpe, tenor, and Miss Gertrude Johnson, soprano, will be heard in operatic arias with orchestra, and the latter is also singing the famous "Dis Lorelei," of Liszt.

A Word to the Sensitive.

On the evening of November 15th the staff of the Bournemouth Station are giving a Smoking Concert. It would be advisable for anyone of a nervous, sensitive temperament, and patrons of the more advanced class of music, to switch over to another station!

Glasgow's New Studio.

On Friday, November 7th, the Glasgow Station will give the first of their programmes from their new studio at 21, Blythswood Square. A particularly attractive programme will be given, including speeches by the Hon. the Lord Provost of Glasgow, M. W. Montgomery, Esq., who will officially declare the new station open, Sir Charles Clibland, K.C.E., Professor Reid, C.B.E., LL.D., and the Rev. J. White B.D. Sir Landon Ronald will conduct an attractive programme, including Mendelssohn's Scottish Symphony. The Station Chorus and Orchestra will render a ballad "Bonnie Kilmeny," by Hamish McCunn. Mr. H. A. Carruthers will also conduct other items by Scottish composers, namely, "Land of the Mountain and the Flood," by Hamish McCunn, "Fantasy on Four Scottish Airs," by Dr. Charles MacPherson, organist of St. Paul's Cathedral, and "Rhapsody Ecossaise," No. 1, by Sir A. C. Mackenzie.

For Lovers of Animals.

On Wednesday, November 12th, animals and their ways will be the subject of the programme at Manchester. There will be animal imitations and the items will be linked up by animal anecdotes. The orchestral and vocal numbers will be all reminiscent of fur and feather, and will include Elgar's "Wild Beasts and Tame Beasts," from the "Wand of Youth," and Dora Bright's "Songs from the Jungle Book," sung by Mr. Kenneth Ellis.

A New Type of Sunday Programme.

On Sunday, November 9th, the London Station will provide a change from the ordinary type of Sunday afternoon programme. The programme will be provided by the Oriana Singers, a party of twenty vocalists selected from the Oriana Madrigal Society. The Oriana Madrigal Society was founded in 1914 for the primary purpose of extending interest in unaccompanied English choral music of the sixteenth and seventeenth centuries, both by performing and republishing it. Its activities, however, have been by no means confined to this; and for the concerts of the society a wide range of music is drawn upon, though special prominence is given to the work of British composers. Further, it is the care of the committee to select for performance such music only that is best and most typical of choral art.

The repertoire of the Oriana Singers is large, consisting of English madrigals and other unaccompanied choral music of the sixteenth and seventeenth centuries, also of modern part songs, and, in addition, they can undertake an entire and varied programme including solo items by various members of the party. Its conductor, Mr. Kennedy Scott, is an established and experienced musician, who includes among his many and strenuous duties the conductorship of the London Philharmonic Choir.



American Listener: "Oh, boy—I've got Scotland!"

Songs I Like to Sing.

By George Parker, the Baritone.



MR. GEORGE PARKER

FROM an extensive repertoire of well over 200 songs, dealing with almost every kind of emotion, I find it is quite impossible for me to fix on any particular song as my favourite.

Of the English songs, one which I have often broadcast is a setting of John Masfield's "Sea Fever," by John Ireland. The mental picture suggested to me by this song is so vivid that I feel the listener will also see it. Also the song moves at a fairly slow pace, so that the words can be easily heard.

And that brings me to a consideration of the value of "words." Of the great number of songs published nowadays I wonder what proportion would justify their words being recited to an audience, instead of sung. Surely, if they will not stand this test, they should not be worth setting to music.

Inspired by Good Verses.

One sees, nevertheless, an increasing attempt to use only good verses, and one can point to John Ireland, Martin Shaw, Vaughan Williams and Arnold Bax as never setting anything that will not pass this test. These composers have set poems by Chaucer, Shakespeare, Blake, Rossetti, R. L. Stevenson, Kipling, W. B. Yeats and John Masfield, and it would seem as though the setting of such words calls forth from the composer the best he knows, and, in the case of a composer who has something in him worth the saying, and also a distinctive way of saying it, the result is a beautiful song which will continue to live, instead of being "like the chaff which the wind driveth away."

Folk songs sound beautiful and interesting when sung without accompaniment, because they have a definite and distinctive melody. Many modern songs will not stand a similar test, for the reason that either there is no melody, or that it is commonplace.

Songs That Sing Themselves.

Most people will agree that Schubert is the greatest of all song writers, and his songs abound in beautiful melodies. The sheer beauty of the melody in such songs as "Litany for All Souls' Day" and "To Music," to mention at random two out of many hundreds, will make them live for all time. Such songs sing themselves, as the poems of Keats or Shelley, or the lyrics of Shakespeare do.

Given, then, great words, the music should bring them out, as it were, and it is this dual effect which the singer ought to seek earnestly, and never rest content until it is found. I would advise all young singers to look at words first, and, if they do not satisfy both the brain and the ear—shall I say, the soul as well?—to reject the song.

The Piano's Value.

I would not wish it to be understood from the above that the accompaniment of a song should be merely an "accompaniment." One of the greatest modern masters of song, Hugo Wolf, would not allow his songs to bear the words, still frequently seen: "Song with pianoforte accompaniment," but insisted on this form: "Song for voice and piano," thus putting the piano on an equal footing with the voice. I always like to think of a song in this manner, for in all accompanied songs the

accompaniment has in it the power to enhance, to bring out, what the words mean.

By a glance at the accompaniment of such a song as Hugo Wolf's "Anacreon's Grave," a beautiful translation of which has been made by Mr. E. Langford, one can see a figure which looks like "vines and green laurels entwining," which the words are saying. The accompaniment is a joy in itself. It is like a sub-conscious reflection of the poem. Again, in John Ireland's "The Heart's Desire," in the second verse, the "waving palms" can be seen in the shape of the accompaniment.

I have sung several unaccompanied songs for the B.B.C., and would urge that there be more. So unaccustomed, indeed, was one of the staff at headquarters to this innovation, that, recently, when some unaccompanied songs were being sung, to which he was listening from another part of the building, he rushed into the studio in great distress, and reported that the "piano" was not "coming through."

The Mixing Compromiser.

Returning to "Sea Fever," it may be interesting to relate that I was singing it about two years before it was published. The musical rights of this fine song had already been disposed of when John Ireland made his splendid setting, and this fact held back the publication of the song, for the composer, who had the rights, could not be found, and it was not until a more than usually energetic and enthusiastic publisher, who "believed in" the song, at last discovered him, that Ireland's setting was published, and one of the great successes of the song-world inaugurated.

I do not think that one need miss one's audience in broadcasting. The true artist's attitude should be a negation of self, and a glorification of his art. He should sing to please himself—and that should be the highest that is in him. If he does that, he need not think of his audience, except in the way of conveying to them something which he has grasped as beautiful and ennobling, and he does not need to see the audience to convey this.

(Mr. George Parker will sing from London on Friday, November 7th.)

TEACHING THE DEAF BY RADIO.

WIRELESS is now used for the teaching of deaf children in the Institution for the Improved Instruction of Deaf Mutes in New York City. By means of an elaborate and unique radio system that now is a permanent part of the institution's equipment, remarkable results have been accomplished.

Each child has a pair of head-phones which are plugged into a jack in the table, this being connected with a master receiving set in another part of the building. As every child's hearing is different, the various head sets are regulated by means of resistances in the table to give different intensities, corresponding to the amount of the child's deafness.

WIRELESS SUSPECTED!

A ROMANIAN scientist, General Negrei, has advanced the theory that some of the disasters caused by hitherto unexplained explosions may have been due to waves radiated from powerful wireless stations. He suggests that these waves may account for the terrible explosion in May last, and also for the previous explosion in 1921, when the fort of Cateanu was mysteriously blown up. The General also believes that wireless was responsible for explosions on ships which have occurred apparently without cause.

Good Music Means Good Health.

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they have arrived at a condition of enthusiastic devotion. The wireless brings within the reach of all the frequent repetition which is necessary for the unmusical to become lovers of great music. The gramophone and the player-piano cannot reach every home; the wireless alone can bring this priceless gift to the poorest.

The adults of the near future will have had in childhood some training of their rhythmic sense, and hence will demand from the wireless better and still better musical programmes. But how is the adult of to-day to begin? He cannot just at once be expected to enjoy a symphony concert. Let him begin, if he so decides, with the music he expects to enjoy, the lightest comic songs. By and by, if he is honest, he will find they pall. That psychological truth explains why a constant change of programme is necessary with so-called popular music; otherwise it could not be endured. After much repetition, great music, on the contrary, yields an ever-growing satisfaction. The symphony which at a first hearing bewilders the beginner, will at the tenth be found to be full of familiar loveliness, and eventually the hearer awaits each bar and phrase with a delighted anticipation which is never disappointed. Great music, moreover, conduces to health of body as well as mind.

It is impossible to discuss here the manifold benefits of music, affecting soul and body. The happiness bestowed by music is unique in its power to dispel the moods of anxiety and gloom which follow in the wake of the crowded life of civilization. Great music lifts the hearer to another plane, frees the cramped mind, fettered by petty cares, telling of a world imperceptible to the senses, but strong to heal and to infuse courage and joy. From this serene level man can face, undaunted, obstacles which threaten to overwhelm him. Fretted with domestic anxieties and business worries, many a tired worker has found salvation in the peace evoked in his soul by great music. And to how many of the young, eagerly, in their ignorance, grasping at vulgar pleasures, has not the divine loveliness of music revealed the world-old truth that all these cares are as dross beside the happiness of the spirit?

Some have asked: Is there, then, no draw-back to cultivating a love of music? Assuredly, all good things in excess carry their own danger. The drug which in small doses is a healthy tonic, becomes in a larger dose a fatal poison. The art which arouses strong emotion can, when indulged in too much, react for the worse upon the nervous system. Plato recognized this fact, and no wiser warning can be found than is contained in these lines:—

"And when a man allows music to play upon him and to pour through the funnel of his ears those sweet and soft and melancholy airs, and his whole life is spent in warbling and the delights of song; in the first stage of the process the passion of spirit which is in him is tempered like iron, and made useful. . . . But, if he carries on the softening and soothing process, in the next stage he begins to melt and waste, until he has wasted away his spirit and cut out the sinews of his soul; and he becomes a feeble warrior."

How shall a man avoid this pitfall? In the answer to that problem lies the wisdom of the centuries. Therein is the quest upon which all are in search who desire to unite the actual with the ideal; in the correct solution lies perfect harmony of mind and body, the discovery of which is at once the duty and the terrible responsibility of every human soul. More than any other art, music can best aid man in this lifelong task.

Light and Your Set.

How the Sun Affects Wireless.

IT has long been recognized that the range of wireless transmissions is much greater at night than it is in the daytime. It is now generally agreed that the cause lies chiefly with the sun.

When that body is above the horizon, a condition of the lower atmosphere—known as ionization—is set up, which has the effect of absorbing and reducing the energy of the wireless waves.

At night, when the sun is absent and the ground has cooled, the ionization of the lower atmosphere has largely disappeared, and ionization is then mainly confined to a layer in the upper regions of the atmosphere. It is by this ionized layer that, from a great height, the wireless waves are refracted, or bent back to earth, and by that means are able to travel great distances round the globe.

Bombarded by Electrons.

Now, electrons, which are negative particles of electricity, play a very important part in ionizing the air, and these come mainly from the sun, so it can be well understood how the lower layers of air are so highly ionized during the day and so comparatively free from that condition at night.

Bearing in mind, then, that the sun is continually bombarding our atmosphere with electrons—all moving at a truly terrific speed—there are times when this bombardment is increased a thousandfold, when there are violent eruptions on the solar surface, and spots of all sizes and shapes appear, and mighty jets of glowing vapour leap with incredible swiftness from the sun's inferno-like interior.

One of these periods has now begun. Astronomers term it the maximum sunspot period. It will continue for another four years or so, during which the spotted area of the sun's face will gradually increase.

A Solar Outbreak.

Here, then, is an excellent opportunity of ascertaining if this will bring about any marked increase in the disparity between day and night long-distance signalling.

The tide of electrons from the disturbed sun, ninety-three million miles away, will be at the flood in course of time, and one would expect the lower atmosphere to be more highly ionized in the daytime than ever. Equally, one would expect the daytime long-distance signalling to be rendered more difficult than ever, and perhaps the night-time signalling to be made more easy.

Even as I write, there is an imposing group of spots nearing the western limb of the sun, and another outbreak is visible in the central region. Perhaps this vast solar disturbance has already had some effect—unnoticed, it may be—on long-distance signalling.

The "Merry Dancers."

Any day, indeed, at this stage of the maximum period, there may be sun-disturbances even greater than the present one. There may, too, be a more or less intense magnetic storm, or a display of aurora, which latter phenomenon is popularly known as the "Merry Dancers."

Other indications—perhaps less well-established as to their effects on the earth—of unusual solar activity, may occur at any moment, now that, as I have pointed out, the maximum sunspot period, with its electron bombardments, has fairly set in.

What, after all, is this maximum sunspot period?

It forms one part of a sunspot cycle, the other part of which is known as the minimum. The entire cycle occupies a space of about eleven years. During that time the spotted

(Continued in next column.)

A Prize Well Won.

Told by a Wireless Club Secretary.



"Confound you, sir! You've made me lame for life!"

made me lame for life!"

"Apropos of lameness," murmured the Secretary, with a far-away look in his eyes, "the case of young Eddie Swan, as good a man as ever handled a D.P.D.T. switch, but a trifle cranky, perhaps, on resistance-capacity, is interesting. As you have a few minutes to spare, Wilkins, just sit down for two dots and a dash while I touch on the matter."

"I didn't say I had a few minutes to spare," retorted Wilkins, indignantly. "However, I suppose nothing will stop you; go ahead and get it over."

The Rival.

"Your rudeness is, no doubt, unintentional, Wilkins, and I will overlook it in this instance. Eddie Swan was, as I said, one of the best men who ever tripped over a coil of 7/22, but as a spell-binder he lacked punch. This was unfortunate, because he had fallen violently in love with Amy Thornton, the charming daughter of the president, and his greatest rival in the lady's affections, Willie Jones, was as silver-tongued as any confidence trickster. Amy showed no decided preference for either, but it was felt among the members that Willie's eloquence would, in time, turn the scale in his favour. Nevertheless, the scale was turned in an unexpected manner at one of the club competitions. But no doubt I bore you, old flex?"

"Yes, but go on," said Wilkins, wearily; "don't stop in the middle of the yarn."

"Well, this particular competition was for home-built receivers, which were to be judged purely on beauty of design, and not on efficiency. The president's daughter, herself a skilful constructor, was to be the judge; and as the rivals were competing, matters assumed an

(Continued from previous column.)

area is either increasing or decreasing in extent. For example, it is now increasing, and will go on doing so for the next few years, until the time comes when the "peak" is reached and the maximum ends.

Then will begin the descent from the "peak"; the minimum has set in; the spotted area will gradually decrease in extent. This also will continue for a few years until the sun will be free from spots altogether. Then the cycle is said to have reached its minimum, corresponding to the trough of the wave of spottedness, just as the maximum represents the crest of the wave. After that, the spotted area begins to increase again—as it is now doing.

Though this periodicity of about eleven years has been known for a long time, its cause remains obscure. Among the many explanations which have been attempted is that the regular storing-up of the sun's internal forces is followed by the equally regular release of those forces when the accumulation can no longer safely be held back.

It is extremely doubtful, however, if this explanation completely satisfies the many demands of the observed phenomena.

"GRANTED," said the Club Secretary, absently, as he barged into one of the new members and trod heavily on his toes. "Oh, Wilkins, is it? I've been looking for you, dear boy."

"Confound you, sir!" moaned Wilkins. "You've

interesting aspect to the rest of the club. Both Swan and Jones were experts with the drill and soldering-iron, and could be relied upon to make every effort to catch Amy's eye. But what of the fair lady herself? Had she no grid time—that is to say, leaning—towards one or other of her suitors? Only time could show; meanwhile, we matted ebonite and wound coils."

"Will you get on with it?" roared Wilkins, goaded beyond endurance. "If this fellow Jones had a tongue like yours—"

"No compliments, dear boy, I beg. But to proceed. The fateful evening arrived, and a long row of more or less ornamental receiving sets were exhibited, those of Swan and his rival being clearly superior to the others. The fair judge passed along the line reviewing the sets with a critical eye, and paused opposite Jones's. Unable to control the natural oscillation of his tongue, Jones pointed out the beauties of his set in detail, and was rewarded with a dazzling smile, but no comment.

"Moving on to Swan's exhibit, Amy paused long, and remarked on the beauty of the exterior finish. With a bashful smile, but with an

ardent look in his eyes, Swan asked the judge to be good enough to lift the ebonite top, which was hinged, and look at what he thought was the most beautiful sight of all. Amy lifted the top, looked within, blushed deeply, glanced at Eddie, and looked again.

"Well, that's all. The prize was awarded to Eddie, and the happy couple were married last month. They had upwards of ten loud-speakers as wedding presents, I remember."

"But, man alive," said Wilkins, "what was inside the cabinet, then?"

"Oh, I thought you would have guessed that. A mirror, of course!"

ALFRED HEARD.
[We shall shortly publish another Tale by a Wireless Club Secretary.]

A warning may here appropriately be given to wireless users to avoid the serious mistake of looking for naked-eye sunspots without having first provided proper protection for their eyes. Neglect in that respect has frequently led to temporary, and even permanent, injury to the sight. The sun's glare should be cut off by means of a tinted piece of glass—dark green is my own preference. Smoked glass, that is, the candle-smoked variety, is best avoided altogether.

A thought which occurs to me before I conclude is that as solar radiation is very largely responsible for the disparity between daytime and night-time signalling, one would expect the period of No-Night to prove especially troublesome. This period—in the South of England, at least—extends from the last week of May until the end of the third week of July. It has no real night, but only twilight, because the sun, at midnight, does not reach the eighteen degrees below the horizon which it has to do before there can be real night.

Again, can it be shown that reflected sunlight from a brilliant full moon has any adverse effect—he is ever so small—on long-distance signalling at night?

JOSEPH H. EXCE.

Pieces in the Programmes.

A Weekly Feature Conducted by Percy A. Scholes.

VAUGHAN WILLIAMS' "THE WASPS" SUITE.

(NEWCASTLE, WEDNESDAY.)

THIS is a Suite of pieces put together by the Composer from the music he wrote for the production of Aristophanes' *The Wasps*, at his own University of Cambridge, in 1909. The play takes its name from the choruses, which are sung by performers representing Wasps. They give their views on topics of the moment, and justify their name and appearance by the way in which they give them.

The music of this Suite represents the spirit of the play, with its humour and satire. There are five Movements:—

1. OVERTURE—very lively and bustling, constructed out of a four note "motto" subject often heard in the course of the piece and three or four clear tunes.
2. ENTR'ACTE—A march of old men.
3. MARCH PAST OF THE KITCHEN UTENSILS. A muted Trumpet is prominent. A Cambridge tradition (of doubtful trustworthiness, possibly) records the activity of the composer, when the production of the play was approaching in searching Cambridge kitchens, with tuning fork in hand, for a *fraying pan in B flat*!
4. Another ENTR'ACTE—not eventful.
5. BALLETT and FINAL TABLEAU—full of high spirits, and towards the end, altogether frivolous.

VAUGHAN WILLIAMS' "THE LARK ASCENDING."

(NEWCASTLE, WEDNESDAY.)

This is a very lovely "Romance" for Solo Violin and Orchestra, inspired by George Meredith's poem beginning:—

He rises and begins to round,
He drops the silver chain of sound,
Of many links without a break,
In chirrup, whistle, slur and shake.

The whole piece is extremely delicate. The listener must settle comfortably in his chair, and attain a restful frame of mind.

SOME VAUGHAN WILLIAMS SONGS.

(NEWCASTLE, WEDNESDAY.)
SONGS OF TRAVEL.

These are settings of the words of a few of Robert Louis Stevenson's forty and more poems of the name. Those to be sung are:—

1. LET BEAUTY AWAKE.

Let beauty awake in the dawn from beautiful dreams.

2. YOUTH AND LOVE.

To the heart of youth the world is a highway-side.

3. THE VAGABOND.

Give to me the life I love
Let the love go by me

4. BRIGHT IS THE RING OF WORDS.

Bright is the ring of words
When the right man rings them.

5. THE ROADSIDE FIRE.

I will make you brooches and toys for your delight,
Of bird-song at morning and star-shine at night.

Another song to be given (not included in the *Songs of Travel*) is *Silent Noon*, one of the songs of the composer's cycle, *The House of Life*, settings of Dante Gabriel Rossetti's cycle of poems of the same name.

BAX'S HARP QUINTET.

(NEWCASTLE, FRIDAY.)

This piece is written for String Quartet, plus Harp. It is all in one "Movement," or at least, there are no actual breaks anywhere.

Its form is that of a normal First Movement of a Sonata, or Symphony or String Quartet, i.e., there are two Main Tunes, which are first given out, then "developed," and finally "recapitulated" or repeated.

The piece opens with a quiet, but restless figure of accompaniment over which the First Violin at once enters with the FIRST MAIN TUNE, which is lyrical. (Note particularly its opening notes, so that you may at once recognize the Tune on its later appearances.)

This completed (it takes only a few seconds), the various bowed instruments, from the Cello upwards, toss about a fragment consisting of the opening notes of the Tune.

A moment later, HARP AND VIOLA loudly give out the Tune itself, again, the other instruments now playing an accompaniment.

Soon there comes a climax, followed by a calming down, which leads us into the—

SECOND MAIN TUNE. This is easily recognized. The HARP plays soft chords, four in a bar, and after a couple of bars of these, the CELLO, at a rather high pitch, adds a melody.

After a time this melody is taken over by the Two Violins, playing in octaves, the HARP playing spread chords.

If, up to this point, attention has been given, the rest will be pretty clear. The Tunes now given out are at some length developed, i.e., treated fragmentarily in various ways, and so made to provide material for a middle section of the piece.

And then, just after a bar or two of low arpeggio notes for Harp alone, the First Main Tune returns, followed in due course by the Second Main Tune, and the piece soon ends.

BAX'S VIOLA PHANTASY.

(NEWCASTLE, FRIDAY.)

This Fantasy of Bax is written for Viola and Orchestra.

Though continuous from beginning to end it falls into three pretty distinct sections.

I.

After an Introduction (rather slow), the SOLO VIOLA gives out a rhapsodical tune, which recurs occasionally throughout the work, and may be considered a "Motto Theme."

At length, whilst the Orchestra holds a chord, the SOLO VIOLA plays a florid passage, and this leads in the First Section proper.

It opens with a jerky accompaniment figure in Orchestra alone, over which the SOLO VIOLA soon enters with the rather fierce but dance-like FIRST MAIN TUNE.

This is treated for some time, and then (slower, and with singing tone) the SOLO VIOLA (accompanied by tremolo Strings) gives out the SECOND MAIN TUNE.

Shortly after, a passage will be noticed where the Trumpet plays the FIRST MAIN TUNE (the fierce, but dance-like one). Soon after this we pass quietly into—

II.

This Section is marked *slow, with simplicity*. There is no space to describe it here. It ends with a plaintive long-drawn statement of the Motto Theme for COR ANGELAE alone.

III.

Then the Third Section (*Quick and lively*) opens with a tripping figure in THREE FLUTES, occasional Harp chords accompanying.

There are two Main Tunes, the first something like an Irish Jig (led off by the SOLO VIOLA), and the second like a broad, flowing Irish folk-song.

Tunes from the earlier part of the work are heard again in the course of this Section, and it closes with a short Epilogue, in which the SOLO VIOLA declaims the "Motto."

Listeners' Letters.

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

A Remarkable Coincidence.

DEAR SIR,—I was listening recently to an entertainer who was telling the tale of the missionary who liked hot pickles and the Yank, and at the same time I was reading the book, "My Book of Memories," by Silas Hocking. Astonishing to relate, I came across, word for word, on page 107, the same tale that was being broadcast from "2LO."

Balham.

R. S. L.

Big Ben's Time.

DEAR SIR,—No doubt many listeners would like to know which point in Big Ben's announcing represents exact time—whether the first or the last stroke of the chimes, or the first or last stroke of the hour. The whole statement of the Time Signal at, say, seven o'clock occupies 50.00 seconds, so allowing a rather wide margin of error.

London, S.W.

W. D.

[The exact time is represented by: Quarters—First stroke of chimes. Hour—First Stroke of "Big Ben" (not chimes).]

A Severe Critic.

DEAR SIR,—If your entertainment staff were practical men instead of practical dreamers—if they had the most elementary knowledge of the type of entertainment the "people" pay to hear—they would know that practically no one wants to hear such dismal, lifeless music as the "Immortal Hour."

The thing is a dirge from beginning to end. There is too much snivel in your programmes and too much poetry.

Yours, etc.,

A. E. H.

Plumstead, S.E.

[This correspondent does not offer any helpful suggestions by which, in his opinion, programmes might be improved. The B.B.C. welcomes any sort of criticism, but a catalogue of individual dislikes is not of much assistance when it is considered that they cater for hundreds of thousands of persons.]

(Continued on the facing page.)



LAPWING AND STONE CURLEW.

The two birds shown above will be described by Mr. E. Kay Robinson during his talk on "British Birds" which he will give from London on Tuesday, November 4th.

Listeners' Letters.

(Continued from the facing page.)

Announcing the Savoy Bands.

DEAR SIR.—It would be appreciated by many listeners if the pieces played by the Savoy Bands were to be announced after, say, every three or four items, instead of giving them at length all at once.

If this were done, listeners who were attracted by any particular dance played could more easily become acquainted with its title, should they wish to obtain the music for themselves.

Yours truly,

Bradford.

J. P.

[The above suggestion is not practicable, as the announcement can only be made when the Bands change. If made at any other time during the evening, it would interfere with the dancing.]

Regularity in Simultaneous Broadcasting.

DEAR SIR.—Is it not possible to have the two nights of simultaneous broadcasting—on Mondays and Thursdays—spread over the different nights of the week—say, one week Monday and Thursday, another week Tuesday and Friday, and so on?

I am occupied on Tuesday and Wednesday evenings, and sometimes on other nights, and my two chief nights for listening are Monday and Thursday, when I am forced to have what is given or go without.

If S.B. must be indulged in twice a week, why not leave a few other stations with their own programmes, so that one could have a choice?

Yours truly,

Wakefield.

G. E. W.

[Many listeners appreciate a certain amount of regularity regarding the days of the week so that they can make their advance arrangements with some certainty that they will not be likely to miss their favourite types of transmission. There are others not so favourably placed, but, unfortunately, it is impossible to please everyone at the same time. Simultaneous programmes usually consist of matter of outstanding interest, or contain artists of prominence, and a duty is owed to provincial listeners who are unable to afford expensive apparatus, and they should have the opportunity of participating in the enjoyment of such programmes.]

Later Broadcast Concerts.

DEAR SIR.—There are a great many people who, like myself, are confined to business until 8 p.m. each night, and as your main concert begins now at 7.30 p.m. it is obvious they have to lose at least three-quarters of an hour of it, which is most disappointing, to say the least of it. At 9.30 p.m. there is the News Bulletin, and after that usually not much of importance until closing time.

I, like a great many more, do not care for talks, English or otherwise, after a hard day's work. Now why cannot you have the talks first, say, at 7.30 or 8 p.m., and then the entire musical programme, with a break for news, until closing time?

Yours, etc.,

Manchester.

M. R. H.

[It has been arranged that all main concerts shall begin at 8 p.m. in future.]

Another Coincidence.

DEAR SIR.—The other day I assisted a friend to erect an aerial pole. Being rather pressed for time and lacking a suitable cowl for the pole top, we fitted my friend's "tin helmet"—a relic of the war.

Behold our surprise when, on tuning-in, we heard the "War Reminiscences" programme being announced!

Bradford. Yours truly, R. H.

PEOPLE IN THE PROGRAMMES.

Artist, Author, and Explorer.



SIR HARRY JOHNSTON.

A TALK of more than usual interest—on the "Mammalian Fauna of Africa"—will be given from London by Sir Harry Johnston, G.O.M.G. K.C.B., on November 6th. Probably no one living knows Africa better than Sir Harry does. In 1894 he commanded the scientific expedition to Mount Kilimanjaro, and in 1899 he went with an expedition to Lakes Nyasa and Tanganyika. He has also explored Portuguese West Africa and the River Congo.

In 1885 he was appointed Vice-Consul in the Cameroons, and in 1888 he was Consul for the province of Mozambique.

Apart from his fame as an explorer, Sir Harry is a clever artist, and has written numerous books, including novels and books of travel. He is also a remarkable linguist, having made a special study of many of the curious African dialects.

The Spoil Wedding-Party.

SIR HARRY JOHNSTON is fond of keeping strange pets, and he tells an amusing story of a monkey which he possessed when he lived in Zanzibar.

There was a wedding at the house of a resident whose gardens Jacko had raided time after time, and against whom he seemed to have a particular grudge. A magnificent wedding-breakfast had been prepared, but just as the party returned to partake of it Jacko hopped in through the French window, seized the corner of the tablecloth, and shook up the whole set-out till everything, from champagne to pickles, was inextricably mixed.

Then he sat on the debris and in monkey language addressed the company till the gun of the infuriated bridegroom cut short his career.

A Popular Contralto.



MISS DIANA WEBSTER.

MISS DIANA WEBSTER, contralto, is a popular Bournemouth singer, and she has broadcast from there on many occasions. She had only just begun her singing education when the war broke out, and instead of continuing her training, she served as a V.A.D. cook in military hospitals.

In 1919 she resumed her long interrupted artistic studies in London.

Old English Songs.

MR. LEONARD COWINGS, who is to broadcast from London on November 5th, was tenor soloist at St. Helen's Church, Bishopsgate, at the early age of seventeen.

He received his musical education chiefly at the Guildhall School of Music, where he won several scholarships and prizes. When he was twenty he was appointed to the choir of St. Paul's Cathedral, where he remained for three years.

Afterwards, he went to the North of England, where he is well known both as a concert artist and as a teacher of singing.

Mr. Cowings is particularly successful in old English songs.

Mimicry by Radio.



MISS RAY WALLACE.

TO be a successful mimic is difficult at all times, but it is especially so on the wireless. Miss Ray Wallace, who is to take part in the all stations music-hall programme to be broadcast on Monday, November 3rd, has brought the art of mimicry to perfection, and no one who has heard the originals of her "victims" can fail to recognize them when they listen.

The Manager Changed His Tone.

MISS WALLACE made her first London appearance as a mimic at the piano at the old Tivoli, in the Strand, when she was only fifteen.

"My earliest recollection of success," she told me, "was on a certain night when I had been put into the Tivoli programme, and I was looked upon by the manager as rather a nuisance, as there was already a woman mimic on the bill. He came to me before I was due to appear and frightened the life out of me by demanding to know what I meant to do, as I was billed as a society entertainer."

"I tearfully confessed that I was merely a mimic, and so he grudgingly allowed me to go on the stage."

Afterwards the manager altered his tone, for Miss Wallace was a big success, and the audience would not allow her to retire until she had gone right through her repertoire.

Talks on Modern Authors.



MR. J. C. B. CARTER.

AMONG the most popular of the talks from Bournemouth Station are those given by Mr. J. C. B. Carter—especially those on "Modern Authors." Mr. Carter took his London B.A. and the Theological Diploma at King's College, London, but gave up ordination in order to go to France with the Y.M.C.A. during the war. There he gained considerable experience in educational and entertainment work.

For some time he sang and acted with Miss Lena Ashwell's concert parties.

A Singer of Modern Music.

A CONTRALTO who is a favourite with listeners in the area served by the Sheffield Station is Miss Rinyah Goodacre.

She studied under the well-known bass vocalist, Mr. Robert Radford.

She is well known to operatic circles in "the City of Steel," and has played leading roles in various grand and light operas.

Miss Goodacre is keenly interested in modern music, and has given several recitals of the works of present-day composers.

An Expert on Geography.

A TALK that listeners should make a point of hearing is that on New Zealand, to be given from London by Sir Halford Mackinder on November 4th. Sir Halford is Professor of Geography in the University of London, and was formerly President of the Geographical Section of the British Association.

In 1899 he was leader of the famous Mount Kenya expedition, and from 1919 to 1920 he was British High Commissioner for South Russia.

WIRELESS PROGRAMME—SUNDAY (Nov. 2nd.)

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

LONDON.

3.0.—Time Signal from Big Ben.

Band Programme.

S.B. to Newcastle.

The Band of

PRINCESS PATRICIA'S CANADIAN LIGHT INFANTRY.

(Recently visiting the British Empire Exhibition.)

By kind permission of Lieut.-Col. C. B. E.

Willetts, D.S.O., A.D.C.

Conductor, Lieut. T. W. JAMES.

DOROTHY ROBSON (Soprano).

BENKELEY MASON (Solo Pianoforte).

The Band.

Quick March, "Flowers" ... *M. Vichol* (1)

Overture, "Vanity Fair" ... *F. Kell*

Waltz, "Angels" ... *Letter*

Songs.

"The Banks of Allan Water" ... *Martin Shaw*

"Hous' Song" ... *F. Kell*

"Rivulet" ... *Martin Shaw*

Pianoforte Solo.

Barcarolle, Op. 50, No. 3 (D Major)

Hubert

Gavotte ... *Gluck-Berghs*

Minuet ... *Palmer*

The Band.

Suite, "Monsieur Beaucaire" ... *Bucoloni*

Cornet Solo, "Dear Little Boy of Mine"

E. Ball

(Soloist, Sergeant H. SWIFT.)

Quartet, "The Four Troubadours"

arr. Myers

"A Canadian Patrol," introducing Canadian Popular Airs.

Songs.

"Japanese Lullaby" ... *B. Ellis* (2)

"Time, You Old Cyprian" ... *M. Bealy* (1)

"The Blackbird's Song" ... *Quilter* (1)

Pianoforte Solo.

"Valse in E Minor" ... *Chopin*

"Two Spanish Dances" ... *Granados*

The Band.

Orchestral Bells Solo, "Golden Showers"

D'Arny

"Ballet Egyptian" ... *Leigai*

The "Princess Pat's" Regimental March.

5.0-5.30.—CHILDREN'S CORNER. S.B.

from Manchester.

Announcer: J. G. Broadbent.

8.30.—Anthem, "Come, Jesus, Come" J. S. Bach

Hymn, "For All The Saints" (A. and M. 437)

The Rev. JOHN MAYO, Rector of White-chapel.

Hymn, "Ten Thousand Times Ten Thousand" (A. and M. 222).

DE GROOT

and

THE PICCADILLY ORCHESTRA.

MAVIES BENNETT (Soprano).

Relayed from the Piccadilly Hotel.

S.B. to other Stations.

The Orchestra.

"Chopiniana" (Excerpts from the Works of Chopin) ... *arr. Finch*

Soprano Song.

"Lo! Here the Gentle Lark" ... *Bishop*

The Orchestra.

"Valse de Concert" ... *Stimms*

"Salut d'Amour" ... *Elgar*

Soprano Aria.

"A fors' à lui" ("Travels") ... *Verdi*

The Orchestra.

Fantaisie, "Die Meistersinger" ... *Wagner*

10.0.—TIME SIGNAL FROM GREENWICH.

WEATHER FORECAST AND GENERAL NEWS BULLETIN. S.B. to all Stations. Local News.

10.15.—De Groot and the Piccadilly Orchestra.

Selection, "La Grand Via" ... *Talceda*

10.30.—Close down.

Announcer: R. F. Palmer.

BIRMINGHAM.

3.0-5.0. THE STATION WIND

QUINTET:

W. HEARD (Flute).

G. E. CLARKE (Oboe).

S. C. COTTERILL (Clarinet).

W. A. CLARKE (Bassoon).

W. E. YORKE (French Horn).

NIGEL DALLAWAY (Piano).

MABEL SENIOR (Soprano).

ALICE VAUGHAN (Contralto).

B. FOWLER WRIGHT (Poems).

Quintet.

March, "Dawn of Freedom" ... *Letter*

Three Pieces ... *Zamant*

(1) "Spirit of Youth"; (2) "Devotion"; (3) "Old South."

Contralto Songs.

"Sometimes in My Dreams" ... *Gay D'Hardelot*

"I Know a Lovely Garden" ... *Gay D'Hardelot*

Quintet.

Overture, "The Sapphire Sea" ... *Grua*

Poetry Readings

by Birmingham Children.

Soprano Songs.

"Spring's Awakening" ... *Sanderson* (1)

"Nightingale in June" ... *Sanderson* (1)

Quintet.

Canzonetta ... *Godard*

Pensée Lyrique ... *Genet*

Serenata ... *Moszkowski*

Contralto Songs.

Serenade ... *Echubert*

Ave Maria ... *Echubert*

Quintet.

Selection, "Il Trovatore" ... *Verdi*

Soprano Songs.

Solweig's Song ... *Grieg*

"The First Violet" ... *Mendelssohn*

Quintet.

Intermezzo, "The Call of the Angels" ... *Wilton*

5.0-5.30.—CHILDREN'S CORNER. S.B.

from Manchester.

Announcer: J. C. S. Paterson.

8.30.—Hymn, "When All Thy Mercies" (A. and M. No. 517).

The Rev. R. W. D. STEPHENSON, St. Mary's Church, Acock's Green: Religious Address.

Hymn, "Fight the Good Fight" (A. and M. No. 540).

Anthem, "Oh, For a Closer Walk" ... *Foster* (11)

Symphony Programme.

THE STATION SYMPHONY

ORCHESTRA:

Conducted by JOSEPH LEWIS.

GEOFFREY DAMS (Tenor).

Orchestra.

9.0. Overture, "St. Paul" ... *Mendelssohn* (11)

Tenor Songs.

Four Songs of Chivalry *Julius Harrison* (1)

(1) "St. Giles' War Song"; (2) "Gwendolen"; (3) "The Eve of Crecy";

(4) "The Giltflower of Gold."

Orchestra.

Symphony No. 4 in B Flat ... *Haydn*

Marche Hongroise, "Faust" ... *Bartók*

10.0.—WEATHER FORECAST and NEWS.

S.B. from London. Local News.

10.15.—Close down.

Announcer: Percy Edgar.

BOURNEMOUTH.

JOSEPH FARRINGTON (Bass).

JESSIE RECORD (Contralto).

ANNE FARNELL-WATSON (Solo

Pianoforte).

WIRELESS ORCHESTRA,

Conducted by

Capt. W. A. FEATHERSTONE.

3.0. Orchestra.

"Scènes Napolitaines" ... *Messiaen*

3.15. Joseph Farrington.

"Honour and Arms" ... *Handel* (11)

"O Divine Redeemer" ... *Gounod*

3.25. Jessie Record.

"Sunshine and Rain" ... *Blumenthal* (1)

"Promise of Life" ... *Cowen* (1)

"Creation Hymn" ... *Beethoven*

3.35. Anne Farnell-Watson.

"Piano Concerto in A Major" ... *Mozart*

4.5. Joseph Farrington.

"Sea Fever" ... *John Ireland*

"Oh, Hear the Wild Winds Blow" ... *Tito Mattel*

4.15. Jessie Record.

"Salboth More at Sea" ... *Elgar* (1)

4.20. Orchestra.

"Narcissus" ... *Tchaikovsky*

"Valse Triste" ... *Schubert*

4.35. Joseph Farrington.

"Come Away, Death" ... *Quilter* (1)

"O Mistress Mine" ... *Quilter* (1)

"Blow, Blow, Thou Winter Wind" ... *Quilter* (1)

4.45. Jessie Record.

"Abide With Me" ... *Liddle* (1)

"The Children's Home" ... *F. Cowen*

4.50. Orchestra.

"Minuet in G" ... *Paderewski*

"Hungarian Dances" ... *Brahms*

5.0-5.30.—CHILDREN'S CORNER. S.B. from

Manchester.

8.30. Choir of the Church of the Annunciation.

Motet, "Ave Verum" ... *Gounod*

Hymn, "I Come to Thee Once More, My God" (Westminster Hymnal No. 79).

8.35.—The Rev. Father PERCIVAL TRIGGS,

of the Church of the Annunciation: Religious Address.

8.45. Choir.

Hymn, "Help, Lord, the Souls Which

"Thou Hast Made" (Westminster Hymnal

No. 132).

Motet, "O Sacram Communion" ... *Parry*

THE WIRELESS STRING ORCHESTRA

Conducted by

Capt. W. A. FEATHERSTONE.

DOROTHY BENNETT (Soprano).

FREDERIC LAKE (Tenor).

THE "6PM" TRIO.

REGINALD S. MQUAT (Violon);

THOMAS E. ILLINGWORTH

(Violoncello);

ARTHUR MARSTON (At the Piano).

8.55. String Orchestra.

A Fugal Concerto, Op. 40, for Two Solo

Violins and String Orchestra *Holst* (11)

9.10. Dorothy Bennett.

"Hymn of Light" ... *J. Ireland*

"I Hear a Thrush at Eve" ... *Codman* (1)

9.15. Frederic Lake.

"There be None of Beauty's

Daughters" ... *Quilter*

"Go, Lovely Rose" ... *Quilter*

9.20. Trio.

"Celtic Prelude" ... *Rutland Boughton*

9.30. Frederic Lake.

"Easter Hymn" ... *F. Delage*

"When You are Old" ... *F. Delage*

9.35. String Orchestra.

"An English Suite" ... *Parry* (11)

"Air de Ballet" ... *Percy Pitt*

9.50. Dorothy Bennett.

"Loveliest of Trees" ... *Graham Peal*

"Where Go the Boats" ... *Graham Peal*

"Young Night Thoughts" ... *Graham Peal*

10.0.—WEATHER FORECAST and NEWS.

S.B. from London. Local News.

10.15. Frederic Lake.

"Eldgic" ... *Messiaen*

"Passing By" ... *Parry*

"On Wings of Song" ... *Mendelssohn*

10.25. String Orchestra.

Night Music, Series 13, No. 2 ... *Mozart*

10.40.—Close down.

Announcer: John H. Raymond.

A number against a musical item indicates the name of its publisher. A key list of publishers will be found on page 287.

WIRELESS PROGRAMME—SUNDAY (Nov. 2nd.)

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

CARDIFF.

3.0-4.30. THE STATION ORCHESTRA:
Conductor, WARWICK BRAITHWAITE.
NORA DELMARR (Soprano).
HIFONWY O. WALTERS
(Solo Violoncello)
Orchestra.

"Three Irish Dances" Ansell
Serenade for Strings, Op. 20 Elgar
Infantry O. Walters.
"Tornadella" Squire
"La Cygne" Saint-Saens

Orchestra.
Nocturne for Horn and Orchestra Bedford
Infantry O. Walters.

"Romance" Elgar (11)
"The Phantom Melody" Kestelbey
Orchestra.

Prélude, Cortège and Air de Danse from
"L'Enfant Prodigue" Debussy
Nora Delmarr.

Margaret's Aria from "Mephistopheles"
Batta

"D est bon" ("Herodiade") Massenet
"Au Caprice du Vent" M. Pratt
"Liam Y Coridan" Hughes

Infantry O. Walters.
Adagio and Allegro from Sonata in E Minor
Marcello

"Davydd—Y Gwreg Wen" Traditional
Orchestra.

Ballet Music, "The Demon" Rubinstein
Announcer: C. K. Parsons.

5.0-5.30.—CHILDREN'S CORNER. S.B. from
Manchester.

6.15-8.0.—Service relayed from St. Woolf's Pro-
Cathedral, Newport. Preacher, The Ven.
D. H. GIFFITHS, M.A., Archbishop of
Monmouthshire.

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

10.0.—WEATHER FORECAST AND NEWS.
S.B. from London. Local News.

10.15.—De Groot and the Piccadilly Orchestra.
10.30.—Close down.

Announcer: E. R. Appleton.

MANCHESTER.

3.0-5.0. THE MANCHESTER CITY
POLICE BAND.

(By kind permission of the Chief Constable.)
Conductor, EDWARD WORMALD.
ANNIE CHADWICK (Soprano).
Band.

March, "Unlce the Star" Weber
Overture, "Poet and Peasant" Suppl. (1)
Selection, "Madam Foinpadour" Leo Fall

Soprano.
"With Verdure Clad" Haydn (11)
"Requiem" Sidney Homer

Band.
Cornet Solo, "Cleopatra" Demars
Selection, "I Pagliacci" Leoncavallo

Soprano.
"Hear Ye, Israel" Mendelssohn (11)
"So Shall the Lute and Harp Awake"
Handel (11)

Band.
Finale from Fourth Symphony
Tchaikovsky, arr. D. Godfrey

Grand Fantasia, "The Village Black-
smith" Kestelbey

Soprano.
"She Wandered Down the Mountain Side"
Frederic Clay (1)

"Hushed is My Lute" Montague Phillips
Band.

Selection, "La Traviata" Verdi
6.0-5.30.—CHILDREN'S CORNER. S.B. to
all Stations.

8.0.—Hymn, "King of Glory, King of Peace"
(English Hymnal No. 424).

SYDNEY G. HONEY: Talk to Young
People.

9.0.—Hymn, "Ond is Working His Purpose
Out" (English Hymnal No. 541).

The Rev. K. L. PARRY, B.Sc., of Chur-
ton Road Congregational Church: Reli-
gious Address.

Hymn, "Evening 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.
10.30.—Close down.

Announcer: E. R. Brennan.

NEWCASTLE.

3.0-5.0.—Programme S.B. from London.
5.0-5.30.—CHILDREN'S CORNER. S.B. from
Manchester.

6.30-7.45.—Relay of Church Service from the
Central Primitive Methodist Church,
Northumberland Road; Preacher, The
Rev. W. YOUNGER.

9.0.—PHILHARMONIC CONCERT, relayed
from the Palace Theatre.

10.0.—WEATHER FORECAST AND NEWS.
S.B. from London. Local News.

10.15.—Close down.
Announcer: R. C. Pratt.

ABERDEEN.

TRIXIE LEES (Soprano).
THE WIRELESS SYMPHONY
ORCHESTRA.

Conductor, NANCY LEE.
Orchestra.

3.0. Overture, "Euryanthe" Weber
"Capriccio Italian" Tchaikovsky

Trixie Lees.
"Ave Maria" Bruch
"Morning Hymn" Henckel

Orchestra.
"Hungarian Rhapsody," No. 1 Liszt
"Pomp and Circumstance," No. 1 Elgar (1)

4.10. Trixie Lees.
"Hear My Prayer" Denrah
"Consider the Lilies" Davies

Orchestra.
"Overture on Danish National Anthem"
Tchaikovsky

"Chanson de Marie" Elgar (11)
"Rêverie du Soir" Saint-Saens

Trixie Lees.
"Abide With Me" (with "Cello
Obligato") Liddle (1)

"How Lovely Are Thy Dwell-
ings" Liddle (1)

5.0-5.30.—CHILDREN'S CORNER. S.B. from
Manchester.

6.30. Choir of Union Grove Baptist Church.
Psalm 43, V. 3-5 (Tune, "Naomi").
Psalm 40, V. 1-3 (Tune, "Richmond").

The Rev. JACKSON S. CHEDBURN,
Union Grove Baptist Church; Address.
Hymn, "Still Will We Trust" (Baptist
Church Hymnal No. 364).

Hymn, "Jesus Calls Us O'er the Tumult"
(Baptist Church Hymnal No. 215).

THE GREYFRIARS PARISH CHURCH
CHOIR.

Conductor, GEORGE A. INNES.
Choir.

Psalm 98, V. 1-4 (Tune, "Shandon")
W. R. Brownfield

Psalm 51, V. 1-2 (Tune, "St. Kilda")
W. R. Brownfield

WAVE-LENGTHS AND CALL SIGNS.

ABERDEEN (2BD)	495 Metres
BIRMINGHAM (5IT)	475 "
GLASGOW (5SC)	420 "
NEWCASTLE (5NO)	490 "
BOURNEMOUTH (5BN)	345 "
MANCHESTER (22Y)	375 "
LONDON (2LO)	385 "
CARDIFF (5WA)	351 "
NOTTINGHAM (5NG)	322 "
PLYMOUTH (5PY)	335 "
EDINBURGH (2EH)	329 "
LIVERPOOL (5LV)	315 "
SHEFFIELD (5FL)	301 "
LEEDS	346 "
BRADFORD (5LS)	310 "
HULL (5KH)	335 "
BELFAST (2BE)	435 "
STOKE-ON-TRENT (5ST)	306 "

Psalm 40, V. 1-4 (Tune, "Ballerna")
adapted R. Simpson

Anthems:
"O Saviour of the World" Goss (11)
"Secordotes Domini" Boyd (1542-1623)

"Open Thy Gates" Julius Harrison
(Choral Pieces).

"Bells of Shandon" Calico
"Night, Lovely Night" Heger (2)

"All in the April Evening" Robertson (2)
6.30. GEORGE A. INNES (Bass).

"O Isis and Osiris, Guide Them" Mozart
"Lead, Kindly Light" Barnard

Choir.
Carol, "Lullay My Liking"
Gustav Holst (2)

Anthems:
"Saviours, Thy Children Keep"
Sullivan (11)

"Send Out Thy Light" Gounod
Psalm 25, V. 4-7 (Tune, "Selma") Smith

Psalm 64, V. 1-3 (Tune, "Kilmarnock")
N. Duggall

Para. 30, V. 1, 4, 6 (Tune, "Belmont").
Para. 2 (Tune, "Stracathra") Hutchison

10.0.—WEATHER FORECAST AND NEWS.
S.B. from London. Local News.

10.15.—Choir, Selected Hymns.
10.25.—Close down.

Announcer: E. J. McKea.

GLASGOW.

CRUE DAVIDSON (Conductor).
THE STATION ORCHESTRA.

Conducted by
HERBERT A. CARRUTHERS.
Orchestra.

3.0. Overture, "Scarglio" Metcalf
Suite, "Othello" Coleridge-Taylor

Valsette, "Wood Nymphs" Eric Coates
3.40. Crue Davidson.

"Into Thy Hands" Bach (11)
"Unmindful of the Roses" Coleridge-Taylor

"A Blood-Red Ring" Coleridge-Taylor (11)
"Life and Death" Coleridge-Taylor

Orchestra.
3.50. Norwegian Rhapsody, No. 1 Scandern

Suite, "Chelms Chius" M. Beely (1)
4.20. Crue Davidson.

Negro Spirituals:
"Swing Low, Sweet Chariot" Bartleigh
"Go Down, Moses" Bartleigh

"The Lord is My Light"
Francis Allister (1)

Orchestra.
Esquisse Symphonique, "In the Steppes of
Central Asia" Borodine

Dance Macabre Saint-Saens
March, "Pomp and Circumstance," No. 2
Elgar (1)

5.0-5.30.—CHILDREN'S CORNER. S.B. from
Manchester.

6.30-7.45. Religious Service, relayed from
KELVINSIDE UNITED FREE
CHURCH.

IRENE SCHARRER (Pianoforte Recital).
"Moonlight Sonata" Beethoven

Improvisations—C Sharp Minor Chopin
Ballade in A Flat Chopin

6.50. THE BACH CHOIR.
Conducted by J. MICHAEL DIACK.

S.B. to Edinburgh.
Introductory Chant by Mr. B. H. BISSETT.

Chorale, "Hosanna to the Living Lord."
Soprano Solo, "On My Shepherd I Rely."

Chorale, "For the Beauty of the Earth."
Two Violins and Pianoforte, Slow Move-
ment from D Minor Concerto

Chorale, "Jesus, Master, Whom I Am."
Bass Solo, "Slumber On," from Cantata,
"It is Enough"

Chorale, "Brightest and Best."
Chorale, "Through the Day Thy Love Has
Spared Us"

10.0.—WEATHER FORECAST AND NEWS.
S.B. from London. Local News.

10.15.—Close down.
Announcer: R. E. Kingsley.

A number against a musical item indicates the name
of its publisher. A key list of publishers will be found on
page 27.

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.

PIFFEL TOWER (P.L.)—Paris, 2,000 m.
Daily: 8.40 a.m., Weather Forecast (except Sundays); 11.0, Market Reports (except Sundays); 11.15, Time Signal, Weather Forecast; 1.45 p.m., 2.30, 4.30, 5.30, Stock Exchange Quotations (except Sundays and Mondays); 6 p.m., Concert (Mondays and Wednesdays); 6.30, News (Sundays, Tuesdays, Thursdays, and Saturdays); 7 p.m., Weather Forecast; 10.10, Final Weather Bulletin (except Sundays).
* From November 1st, on 1st and 15th of each month, at 4.45 p.m.

RADIO-PARIS (S.F.R.)—Paris, 1,500 m.
Sundays: 12.45 p.m., Orchestral; 1.45, News; 4.45, Concert; 8.30 p.m., News; 9 p.m., Concert; 10 p.m., Dance Music.

Weekdays: 11.30 p.m., News, Stock Exchange Quotations, Telegrams, Orchestral; 1.30, Market Reports, Concert; 4.45, Stock Exchange and General News, Women's Hour; 8.30, Lecture, News, Concert; 10 p.m., Dance Music (not daily). *Le Micro, Paris*, provides a special concert every 2nd and 4th Saturday in each month at 10 p.m.

ECOLE SUP. DES POSTES ET TELEGRAPHES (E.T.P.)—Paris, 4.8 m.

2 p.m., Concert (irregular), 4.30, Lecture (Thursdays); 8 p.m., English Conversation and Concert (Tuesdays); 8.30 p.m., Lecture of Concert (daily). On 3rd Sunday of each month, Organ Recital at 5.45 p.m.

"PETIT PARISIEN"—340 m.

8.30 p.m., Concert (Tuesdays, Thursdays, and Sundays).

LYONS-LA-DOUA—450 m.

Daily: 12.30 a.m. and 8 p.m., News and Concert.

GERMANY.

BERLIN (Telefunken)—150 m.

10.30 a.m., Concert (almost daily); 1 p.m., Concert (irregular).

MUEHNBERG (Relay Station)—340 m.

Programme relayed from Munich.

HAMBURG—387 m.

8.30 a.m., Time Signal, News (2.45 Sundays); 10.15, Sacred Concert (Sundays); 11.15, News (Sundays); 11.45, Time Signal, Stock Exchange Quotations; 12.15, Concert (Sundays); 2 p.m., Lecture (Sundays); 4 p.m., Women's Hour, Lecture; 7 p.m., Concert or Play (daily); 9 p.m., Weather Forecast, Market Reports, Sporting News; 10.30 p.m., General News (in English).

MUNSTER—407 m.

Weekdays: 6.55 a.m., Time Signal, News; 11.15 a.m., Stock Exchange Quotations; 12.0, Time Signal; 2 p.m., Market Reports, News; 2.45, Orchestral; 6.15, Weather Report, News; 7 p.m., Concert; 8.15, News, Dance Music (Saturdays, Sundays); 8.45 and 7 p.m., Concert and News Bulletin and Dance Music.

DRESDEN—415 m.

10 a.m., Sacred Concert (Sundays); 10.45, Stock Exchange News, Weather Forecast; 11.50, Time Signal, Weather Forecast, Stock Exchange News (daily); 2 p.m., Berlin News; 2 p.m., Children's Corner (Saturdays and Sundays); 4 p.m., Orchestral; 4.30 p.m., Repertoire Lesson (Sundays), English Conversation (Thursdays); 7 p.m., Dance Music, Time Signal, Weather Forecast (Sundays); Lecture (weekdays); 7.30 p.m., Concert (Munich, English Conversation (Thursdays)).

BERLIN (1) (Cos. Hansa)—420 m., 1,500,000 m.

9 a.m., Market Reports, News; 11.15, Stock Exchange Report, Time Signal (11.55), News (12.30); 1.15 p.m., Stock Exchange Report; 2.30 p.m., Orchestral; 5.30, Lecture (daily), Children's Corner (Wednesdays and Sundays), English Conversation (Mondays); 6.45, Lecture (except Sundays); 7.00, Concert, News, Time Signal; 9.30 p.m., Dance Music (Thursdays and Saturdays).

Berlin (2) relay Concert, etc., from 4 p.m., onwards on 500 m.; also transmits Market Reports at 10.55 a.m., 2, 7, and 8 p.m.

STUTTGART—437 m.

10.30 a.m., Concert (Sundays); 11, Market Reports; 3 p.m., Concert and News (Sundays); 2.30, News; 4.30 p.m., Market Reports, Concert, Weather Forecast, Time Signal, Children's Corner (Wednesdays and Saturdays), Women's Hour, (Fridays); 6 p.m., News, Time Signal (Sundays); 8.30 p.m. (weekdays), 6.30, Lecture (Mondays and Tuesdays), English Conversation (Fridays); 7-9.30 p.m., Concert, Weather, Time Signal, News (daily).

LEIPZIG—450 m.

8 a.m., Sacred Concert (Sundays); 10.50, Market Reports; 11.50, Time Signal (weekdays); 12 and 3 p.m., Stock Exchange News, Concert (Sundays); Children's Corner (Wednesdays, Concert (weekdays); 5 p.m., Market Reports (weekdays); 6 p.m., Lecture, Repertoire (Mondays), News (Wednesdays); 6.45 p.m., English Lesson (Tuesdays), Concert or Opera, News, Dance (Sundays). *Ad items daily except when otherwise stated.

KOENIGSBERG—460 m.

7.15 a.m., Market Reports (Wednesdays and Saturdays); 10.15, Market Reports (weekdays); 10.30, Sacred Concert, Sermon (Sundays); 11.15, Time Signal (daily); 1 p.m., Stock Exchange and General News (weekdays); 2.30 p.m., Orchestral (weekdays); Children's Hour (Wednesdays and Fridays); 6 p.m., Lecture (daily); 7 p.m., Concert, Weather Forecast, News Bulletin (daily); 8.30 p.m., Dance (Saturdays).

FRANKFURT-ON-MAIN—467 m.

7 a.m., Sacred Concert (Sundays); 10.45, News Bulletin (daily); 10.55, Time Signal and News; 2 p.m., Children's Hour (Sundays); 3.30 p.m., News Bulletin, Orchestral (daily); 7 p.m., Lecture (weekdays); Repertoire Lesson (Fridays); 7 p.m., Lecture (Sundays), English Conversation (Wednesdays); 7.30 p.m.,

Concert (daily), Opera (Thursdays); 8.30 p.m., News Bulletin, Weather Forecast, Dance Lecture, Women's Corner (daily); 9 p.m., Time Signal, Concert (weekdays, except Mondays and Thursdays).
*The *Frankfurter Zeitung* provides this entertainment.

MUNICH—480 m.

9.40 a.m., Sacred Concert (Sundays); 1 p.m., Time Signal, News, Weather Forecast (weekdays); 2.30, Concert (daily); 4 p.m., Children's Corner (Wednesdays); 5 p.m., Lecture (Wednesdays); 8.30 and 9.30, Concert, Lecture; 7.30 p.m., Concert, News, Weather Forecast, Time Signal (daily); Dance Music (Saturdays).

KOENIGSBERG-STRAUBEN (L.P.)—Near Berlin.

8.00 m., 8.40 a.m., Concert (Sundays); 2.40 m., 10.20 a.m., Concert (daily); 2.50 m., 6.30 a.m. to 7.40 p.m., Wolff's Press News; 2.30 m., 10.50 a.m., Concert (Sundays); 3.15 m., 5 a.m. to 8 p.m., Telephonische News Service; 4.00 m., 6 a.m. to 3 p.m., Express News Service.

BRUSSELS (S.F.R.)—265 m.

Daily: 5 p.m., Orchestral, Children's Corner (Wednesdays and Thursdays), Dance Music (Tuesdays and Saturdays); 6 p.m., News; 8 p.m., Lecture; 8.15, News, Concert; 10 p.m., Film News.

HAEREN (RAY)—1,100 m.

Weekdays: 1 p.m., 2 p.m., 4.30 and 6.50 p.m., Weather Forecast.

HOLLAND.

AMSTERDAM (PAG)—4,950 m.

11 a.m., Concert (daily); 1.40 p.m., Concert (Wednesdays); 8.40 p.m., News; 9.10 p.m., Concert (daily).

AMSTERDAM (OCFT)—2,000 m.

News and Stock Exchange Quotations almost hourly from 7.45 a.m. to 7.55 p.m.

YMUDEN (OCMM)—1,000 m.

8.10 p.m., Concert (Sundays).

HAARLEM (OCFT)—1,000 m.

7.30 p.m., Concert (Sundays); 8.40 p.m., Lecture (Fridays, irregular); 9.45 p.m., Children's Corner (Mondays).

SWITZERLAND.

GENEVA (HRD)—4,100 m.

Daily (except Sundays): 12.15 p.m., Weather Forecast, Stock Exchange and General News, Lecture.

LAUSANNE (HRD)—850 m.

Daily: 7.45 a.m., Weather Forecast; 12.30 p.m., Weather Forecast, Time Signal, and News; 4 p.m., Children's Corner (Wednesdays); 1.15 p.m., Concert (daily except Weds.); Dance Music (Thurs. and Sat.).

ZURICH (Hoege)—650 m.

Weekdays: 12 and 4 p.m., Weather Forecast, News, Stock Exchange Quotations; 5.15 p.m., Children's Corner (Mondays, Wednesdays, and Fridays), Women's Hour (Thursdays); 6 p.m., Weather Forecast, News; 7.15, Lecture, Concert (daily); 9 p.m., Final News Bulletin, Sundays; 11.10 a.m. and 7.35 p.m., Concert; 8 p.m., News.

PORTUGAL.

LISBON (Aero Lisboa)—875 m.

8.30 p.m., Music (irregular).

MONTENEGRO (CTV)—2,450 m.

Music (irregular); 1 p.m. and 11 p.m., Weather Forecast.

ITALY.

ROME—125 m.

4 p.m., Concert (Mondays, Wednesdays, Saturdays); 8.15 p.m., Concert (daily except Thursdays and Sundays).

UNIONE RADIOFONICA ITALIANA—422 m.

7.30 p.m., Concert (daily).

ROME (Central)—1,000 m.

2 p.m. and 6.30 p.m., Concert (irregular).

SPAIN.

MADRID (Radio Iberica)—365 m.

Daily: 7.15 p.m., Weather Forecast, Time Signal, Stock Exchange News, Concert; 10.45 p.m., Concert, Time Signal (11.14 p.m.); 11.30 p.m., Concert, Dance Music.

BARCELONA—323 m.

New station, testing daily, 6 p.m. and 9 p.m.

DENMARK.

COPENHAGEN (Radiohuset)—About 500 m.

New Station.
Weekdays: 7 p.m., Concert (irregular); 4 p.m., Concert (Sundays).

LYSLOT (TOX)—2,400 m.

9.30 a.m., 8.30 p.m., 8.45, Weather Forecast; (2,700 m.), 6.30 p.m. (2,400 m.), 5 p.m., News (daily); 11 a.m., and 1.10 p.m., Concert (Sundays).

RYVANG—4,000 m.

7 p.m., Concert (Tuesdays and Fridays); 11 a.m., Concert (Thursdays).

VORCKS PASSAGE—440 m. New Station. 5 p.m., Tests.

VIBORG—2,400 m.

7 p.m., Concert (irregular).

SWEDEN.

STOCKHOLM (TV)—410 m.

10.10 a.m., Religious Service (Sundays); 11.35, Weather Forecast, etc. (daily); 6.10 p.m., Concert and News (daily).

STOCKHOLM (Radio Akt)—570 m.

1.10 p.m., Concert and News (Tuesdays, Thursdays, Saturdays, Sundays).

GOTHENBURG—460 m.

6.10 p.m., Concert (Tuesdays, Fridays, Saturdays).

GOTHENBURG—480 m.

6.10 p.m., Concert (Mondays, Wednesdays, Thursdays).

BODEN—1,500 m.

6.30 p.m., Concert (Tuesdays and Fridays); 4.40 p.m., Concert and News (Sundays).

EVENTS OF THE WEEK.

SUNDAY, November 2nd.

LONDON, 3.0.—Band of Princess Patricia's Canadian Light Infantry. S.B. to Newcastle.

LONDON, 3.0.—De Groot and the Piccadilly Orchestra. S.B. to other Stations.

GLASGOW, 8.30.—The Bach Choir. S.B. to Edinburgh.

MONDAY, November 3rd.

ALL STATIONS except Belfast, 7.30.—"Old Times." Reminiscences of the Old Music Hall, presented under the Chairmanship of Willis Rouse.

GLASGOW, 7.35-8.30.—"The Golden Cockerel," Act I, played by the B.N.O.C., relayed from King's Theatre, Edinburgh.

TUESDAY, November 4th.

LONDON, 8.30.—Popular Programme, including John Henry's Studio. S.B. to other Stations.

BIRMINGHAM, 7.30.—City of Birmingham Symphony Orchestra, Conducted by Sir London Ronald. S.B. to London.

BOURNEMOUTH, 7.30.—Band of the 2nd Batt. The Loyal (North Lancashire) Regiment.

NEWCASTLE, 7.30.—Dance Music of Four Centuries and a Play.

ABERDEEN, 8.30.—An Evening with Dvorak.

BELFAST, 7.30.—"Ulster Poetry in Song."

WEDNESDAY, November 5th.

LONDON, 7.30.—Chamber Music and Songs.

BOURNEMOUTH, 8.0.—Municipal Orchestra, Conducted by Sir Dan Godfrey.

CARDIFF, 7.30.—Three Plays.

MANCHESTER, 7.30.—"Harmony—Humour—History."

NEWCASTLE, 7.30.—Delius and Vaughan Williams.

GLASGOW, 7.30.—Festival Prize Winners' Night.

BELFAST, 7.30.—Augmented Orchestra Night.

THURSDAY, November 6th.

ALL STATIONS except Manchester and Belfast, 7.30.—Comic Opera, "La Cigale" (Andran). Relayed from London.

MANCHESTER, 7.30.—Glee, Madrigals, and some Humour.

FRIDAY, November 7th.

LONDON, 7.30.—Third Night with the Old Masters.

BOURNEMOUTH, 7.30.—Light Symphony and Operatic Night.

CARDIFF, 7.30.—"Pageant of Empire."

MANCHESTER, 7.30.—A Trip to Fairyland.

GLASGOW, 7.15.—Opening of the New Studio. Orchestra conducted by Sir London Ronald. S.B. to Aberdeen and Edinburgh.

SATURDAY, November 8th.

LONDON, 7.30.—The "Roosters" Concert Party. S.B. to other Stations.

BIRMINGHAM, 7.30.—"A Tale of Two Cities" (Charles Dickens).

ABERDEEN, 7.30.—Operatic Night.

WIRELESS PROGRAMME—MONDAY (Nov. 3rd.)

The letters "B.B." printed in italics in these programmes signify a simultaneous broadcast from the Italian station.

LONDON.

- 2.15-3.45.—Talk to Schools. Mr. GEOFFREY SAW on "Music."
- 4.0-5.0.—Time Signal from Greenwich. Concert: The "2LO" Trio and Doris Owens (Contralto). "Workshops of Famous Men—(7). Stevenson at Samoa," by Caroline Buchan.
- 5.30-6.15.—CHILDREN'S CORNER: Stories by E. Le Breton Martin. "The Tale of a Thief," by Nancy M. Hayes, from "My Little Tales," retold by Dorothy King.
- 6.40-8.55.—Mr. A. F. H. Newton, on "Long Distance Running."
- 7.0.—TIME SIGNAL FROM BIG BEN. WEATHER FORECAST and "THE GENERAL NEWS BULLETIN." S.B. to all Stations.
- Talk by the Radio Association. S.B. to all Stations.
- Mr. J. WATERSON, D.Sc., Asst. Keeper of the Department of Botany at the British Museum, on "Flora and Fauna." S.B. to other Stations.
- Local News.
- 7.11.—"OLD TIMES." (For particulars see centre column.) S.B. to all Stations.
- 9.30.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and "THE GENERAL NEWS BULLETIN." S.B. to all Stations.
- Topical Talk.
- Local News.
- 10.1.—THE SAVOY ORPHEANS AND SAVOY HAVANA BANDS, relay from the Savoy Hotel. S.B. to all Stations.
- 11.0.—Close down.
- Announcer: J. S. Dodgson.

BOURNEMOUTH.

- 3.30-4.30.—The "BBM" Big Band. Jerome Murphy (Irish Songs and Stories). Talk to Women: "Curious Customs," by Mrs. George Pooley.
- 5.0-6.0.—WOMEN'S CORNER: Sidney Rogers, F.R.H.S., Topical Horticultural Hints. Edith Freeman (Contralto).
- 5.30-6.30.—CHILDREN'S CORNER.
- 6.0-6.30.—Scholars' Half Hour: J. Scattergood, F.R.G.S., on "How and Why Towns Grow."
- 6.30-8.50.—Miss A. B. Flower, F.E.S., F.R.H.S., on "Bee-Keeping."
- 7.0-11.0.—The entire Programme S.B. from London.
- Announcer: John H. Raymond.
- 1.0-4.0.—Falkman and his Orchestra, relayed from the Capitol Cinema.
- 5.0-5.45.—"SWA'S" "FIVE O'CLOCKS": Talks to Women. Vocal and Instrumental Artists.
- 6.45-8.15.—CHILDREN'S CORNER.
- 7.0.—WEATHER FORECAST AND NEWS. S.B. from London.
- Radio Association Talk. S.B. from London.
- Mr. RICHARD TRESEDER, F.R.H.S., on "Gardening."
- Local News.
- 7.35-11.0.—The entire Programme S.B. from London.
- Announcer: A. H. Goddard.

ALL STATIONS PROGRAMME (except Belfast).

Relayed from London.

7.35-8.30.

"Old Times."

Reminiscences of the Old Music Hall, presented under the Chairmanship of WILLIE ROUSE.

Let us take you back to one of London's Old Music Halls in the year, say, 1870. The oblong building is lit by tiers of opal-globed gas lamps, and the atmosphere, laden with tobacco smoke and bearing an undertone of the murmur of voices and the clinking of glasses, is ventilated fitfully by a few open windows. On his Olympian throne, immediately in front of the orchestra, and with his back to the stage sits the Chairman at his table. He is the Master of Ceremonies, and with his hammer and his tremendous voice announces each item and encore. On either side sit the privileged few, and beyond them, at the sombre tables, are the members of the general audience, smoking their churchwardens and knocking applause with their frog glasses.

On both floors of the hall are capacious refreshment bars, to which patrons resort when not interested in the turn occupying the stage, so that it has become a standard joke to refer to such items as "Bar Turns"—a pun on the usual title of the Horizontal Bar or Trepase acts as popular at this period.

We trust that listeners will find no "Bar Turns" in the following programme.

Programme.

1. THE ORCHESTRA: Overture, A Selection of Old-Time Songs.
arr. Chappell
2. RAY WALLACE, in Impressions of Kate Carney, Vesta Victoria, Harry Champion, Ada Reeve, Cliff Ryland, Connie Ediss, Alfred Lester, Victoria Monks, Vesta Tilley, Gertrude Gilman, Ella Shields, Marie Lloyd.
3. JAY KAYE, in the popular number of the famous Dan Lane, "Buying a House."
4. MARIE SABERONNE, the celebrated Bird Mimic.
5. R. E. JEFFREY: A Reminiscence, "The Case Bottomed Chair."
6. FRANK WOOD, in Impressions of R. G. Knowles, Eugene Stratton, Gus Elm, Herbert Campbell, George Beauchamp, Mark Sheridan, Charles Godfrey, and Joe Elvin.
7. The Orchestra: "Melodious Memories."
Herman Finck
8. CHARLES COBORN, the Veteran Walking Canadian, will tell a few Reminiscences of the old Music Hall days and will sing, by special desire, his most famous numbers, "The Man that Broke the Bank at Monte Carlo," and "Two Lovely Black Eyes."
9. God Save the King.

3.0-3.30.—Music relayed from Picturedilly Picture Theatre.

3.30-4.0.—Broadcast for Schools. JAMES BERNARD: A Reading of English Literature.

4.0-4.30.—Concert by the "2ZY" Quartet.

4.30-5.0.—WOMEN'S HALF HOUR. Margery Fairburn (Contralto).

5.0-6.0.—CHILDREN'S CORNER.

Announcer: T. O. Benchcroft.

6.30-6.35.—Boys' Brigade, Boys' Life Brigade, and Church Lads' Brigade Bulletins.

6.35-6.55.—Major W. Peck Groves "Curious Methods of Fishing All the World Over—(3). Concerning the Octopus and Other Things."

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

Radio Association Talk. S.B. from London.

Local News.

7.10-7.30.—Interval.

7.35-11.0.—The entire Programme S.B. from London.

Announcer: J. G. Broadbent.

NEWCASTLE.

- 3.45-4.45.—Isabel Chisholm (Soprano), George Parker (Baritone), James Mack (Solo Violin).
- 4.45-5.15.—WOMEN'S HALF HOUR: Weekly News. Let us. Florence Muller on "Foods for Cold Weather."
- 5.15-6.0.—CHILDREN'S CORNER.
- 6.0-6.30.—Scholars' Half Hour: Mr. J. J. Todd, B.Sc., on "Defoe."
- 6.45-8.55.—Prof. J. J. Welch, Professor of Naval Architecture, Armstrong College, on "Shipbuilding."
- 7.0-11.0.—The entire Programme S.B. from London.

Announcer: W. M. Shewen.

3.30-5.0.—Concert: Dance Afternoon. The Wireless Dance Orchestra. Feminine Topics: Mrs. M. G. Cameron on "The Care of Hens and Ducks." John Cooper Baritone.

5.10-6.0.—CHILDREN'S CORNER. Mrs. J. G. Burnett on "Learning to Listen."

6.30-8.50.—Girl Guides' and Boy Scouts' News Bulletin. Dr. W. Douglas Simpson on "Scouting: The Headquarters' Outlook."

7.0-7.30.—Programme S.B. from London.

8.40-9.0.—Talk by H. BROWN. S.B. from Glasgow.

10.0-11.0.—THE SAVOY BANDS. S.B. from London.

Announcer: Neil McLean.

GLASGOW.

2.30-4.50.—Popular Afternoon: The Wireless Quartet. Helen W. Young (Solo Violin). Afternoon Topics. Campbell Mackie, of the Glasgow School of Art, on "Design and Decoration."

6.15-8.0.—CHILDREN'S CORNER: Letter Competition Results. Thirty Minutes with News. "Our Four-Legged Friends." Illustrated in Song and Story by Auntie Cyclone and Uncle Mungo.

8.0-8.15.—Weather Forecast for Farmers.

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

Radio Association Talk. S.B. from London.

Dr. J. WATERSON. S.B. from London.

Local News.

7.35-8.30.—"THE GOLDEN COCKEREL." Act I. Performed by the BRITISH NATIONAL OPERA COMPANY, at the Kings Theatre. Relayed from Edinburgh.

8.30.—"The Golden Cockerel." S.B. from London.

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

Capt. G. H. BROWN, on "Developments of Shipping—Local." S.B. to Aberdeen.

Local News.

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

11.0.—Close down.

Announcer: Mango M. Dewar.

A number against a musical note indicates the name of the publisher. A key list of publishers will be found on page 257.

WIRELESS PROGRAMME—TUESDAY (Nov. 4th.)

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

LONDON.

1.0-2.0.—Time Signal from Greenwich. Concert. The "ELO" Trio and Havers Cook (Tenor).

2.15-3.45.—Talk to Schools: Mr. E. MAY HOBINSON, President of the British Empire Naturalists' Association, on "British Birds."

4.0-5.0.—Time Signal from Greenwich. Concert. "A Book to Read" by Ann St. Organ and Orchestra. Music relayed from Sherburne Park Palace. Miss Havers Cook (Soprano) and Havers Cook (Tenor).

5.30-6.15.—CHILDREN'S CORNER. The Story of the First Emperor by Florence H. Brock. A children's concert by Mrs. K. M. C. MacAlister. Songs by Little Dore, Barrow, and Little Dore.

6.40-7.00.—An Appeal on behalf of the London Orphanage. Music by the Staff of the Orphanage.

7.0.—TIME SIGNAL FROM GREENWICH. WEATHER FORECAST and GENERAL NEWS BULLETIN. S.B. to all Stations.

ARCHIBALD HADDON. Dramatic Concert. S.B. to all Stations and Local News.

7.30.—THE CITY OF BIRMINGHAM SYMPHONY ORCHESTRA. Conducted by Sir LANCELOT RONALD. S.B. from Birmingham.

8.30.—Popular Programme. S.B. to all Stations.

GRACE IVELL and VIVIAN WORTH. The Orchestra.

JOHN MACKENZIE (Solo) and THE WIRELESS ORCHESTRA. Conducted by DAN ROBERTS. The Orchestra.

March, "Hands Across the Sea" (Solo) and Overture, "Patience" (Solo).

8.45.—JOHN HENRY'S STUDIO. Concert Director, Announcer, Studio Manager, Master of Ceremonies, and General Factotum. JOHN HENRY. He has borrowed the "ELO" Artists, including:

Grace Ivell and Vivian Worth and John Mackenzie.

Blossom will be there to look after John Henry.

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

Sir HALFORD MACKINDER. British Commonwealth of Nations Series—New Zealand. S.B. to all Stations except Local News.

10.0.—Popular Programme (Continued). The Orchestra.

Nigger Sketch, "Down South" Middleton John Mackenzie, with Orchestra. For as a Scottish Air arranged for English Concertina.

The Orchestra. Selection, "The Bing Boys on It" and "Vat D. Ager."

10.30.—Close down. Announcer: R. F. Palmer.

11.0.—Close down. Announcer: R. F. Palmer.

11.30.—Close down. Announcer: R. F. Palmer.

12.0.—Close down. Announcer: R. F. Palmer.

12.30.—Close down. Announcer: R. F. Palmer.

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16.0.—Close down. Announcer: R. F. Palmer.

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17.30.—Close down. Announcer: R. F. Palmer.

18.0.—Close down. Announcer: R. F. Palmer.

18.30.—Close down. Announcer: R. F. Palmer.

19.0.—Close down. Announcer: R. F. Palmer.

A Symphony and Dramatic Programme.

7.30.—THE CITY OF BIRMINGHAM SYMPHONY ORCHESTRA.

Conducted by Sir LANCELOT RONALD. LEAF and HARRISON.

(Solo Violoncello). Relayed from the Town Hall. S.B. to London.

Carnival Overture. Concerto for Violoncello and Orchestra.

Solo: L'Arlesienne. Concerto for Violoncello and Orchestra.

8.30.—POPULAR PROGRAMME. S.B. from London.

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

Sir HALFORD MACKINDER. S.B. from London. Local News.

10.0.—C. H. L. S. OVERT. "The End of the Road."

"The End of the Road" (Solo). "The End of the Road" (Solo).

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"The End of the Road" (Solo). "The End of the Road" (Solo).

"The End of the Road" (Solo). "The End of the Road" (Solo).

9.0.—Vivian Foster.

9.10.—Robert Sturtevant and Gladys Seymour. Duets.

"Bye-bye" (Solo). "Times Have Changed" (Solo).

9.20.—Intermezzo, "In a Monastery Garden" (Solo).

Baccaratle from "The Tales of Hoffmann" (Solo).

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

Sir HALFORD MACKINDER. S.B. from London. Local News.

10.0.—Selection from Willard Sanderson's "The Sea." Arr. D. Hughes.

10.10.—Folk Song Suite. (1) March, "Seventeen" (Solo).

(2) Intermezzo, "The Sea" (Solo).

(3) March, "Folk Song from Somerset" (Solo).

Regimental March, "The Red, Red, Red" (Solo).

10.30.—Close down. Announcer: John H. Raymond.

11.0.—Close down. Announcer: John H. Raymond.

11.30.—Close down. Announcer: John H. Raymond.

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29.0.—Close down. Announcer: John H. Raymond.

29.30.—Close down. Announcer: John H. Raymond.

30.0.—Close down. Announcer: John H. Raymond.

30.30.—Close down. Announcer: John H. Raymond.

A number against a book title indicates the
of its publisher. A key list of publishers will be found
page 267.

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

France in the Days of Long Ago.

HELLO, children!

Here is a very interesting talk about France by Auntie Marie, of London.

I have been away—in Paris. While I was there I often thought about you all and wished you could each of you come with me to that beautiful city and see all the interesting things I saw. I never get tired of museums and picture galleries, beautiful old churches, and magnificent chateaux (those are palaces where kings and princes used to live). Paris is a very ancient city, you know; but perhaps you don't, so I will explain.

Conquered by Rome.

You have heard of what is called the Roman Empire, I am sure. There is a great deal about it in the Bible, and some of you will have read stories in other books about the Romans and the wars they made. You learn in English history at the very beginning, how Julius Caesar, a great Roman Emperor and General, conquered Britain, and we still find, dotted about England, what we call Roman remains.

Well, a few years before the Romans landed in Britain they conquered France, or Gaul, as it was then called. The people who lived in Gaul were made up of different tribes who were very quarrelsome, and Caesar took advantage of this to step in and manage their affairs for them.

For one thing, Gaul was often attacked by fierce warriors from the North East, and Caesar saw that the Gauls wanted help to fight against these terrible warriors, so, as his army was very strong, he lent them soldiers who fought battles for them.

The Gauls had not always been so helpless. Before the time of Julius Caesar they had lived in a wild state for many years, in their great

forests, very much like the early Britons did—only, as Gaul was not an island, sometimes, when they were feeling daring, they raided neighbouring countries. In fact, rather more than three hundred years before Julius Caesar's conquest of Gaul, one of their wild tribes made their way into Italy as far as Rome, and forced the Romans to pay them a big sum of money before they went home to Gaul again.

Other tribes from Gaul got as far as Greece and beyond into Asia. But when they weren't making war, they lived happily in their villages in huts made of wood or earth—like savages do to-day—and spent most of their time hunting. They hunted the wolf, the bear, the buffalo, and the wild boar. They ate the meat and used the skins to clothe themselves. That was more than two thousand years ago.

The Result of Quarrelling.

Later, they found out how to make woollen materials which they dyed and made clothes of, and they also began to cultivate the ground to sow wheat and plant vines. France is still famous for her grapes and wine. They had priests called Druids, just like the early Britons, and these Druids taught the children to be good and brave. It was a pity these people were jealous of one another and quarrelled, because it gave the Romans a chance of conquering them while they were busy fighting amongst themselves.

First the Romans took one town, and then another, until the Gauls saw that soon their whole country would belong to Rome. Then the people grew afraid and called under a chief called Vercingetorix, and fought well to defend Gaul. But it was too late to be of any use, for Vercingetorix had to surrender to Julius Caesar in the end. It did not happen all at

once. It took Caesar eight years altogether to conquer the whole of Gaul.

Paris was then the principal village of one of the main tribes in Gaul. It was known as Lutetia, and was built on a tiny island in the River Seine. Little by little this village grew bigger and it soon became a favourite place for the Roman Emperors to stay in. The little island is still there and forms the heart of Paris to-day. In time, the people of Gaul became Christians and we hear of Saint Denis, the first Bishop of Paris.

Many Improvements.

The people of Gaul soon grew to like the Romans. They governed well and kept peace, made roads and bridges, founded schools and made all kinds of improvements which the people themselves could not do, for they were ignorant, and could not even read or write.

I think the Romans were rather like an older boy forcing his way into a little boy's garden to help him to put it in order and to keep other big, rough boys from tramping on it. They could not go on looking after Gaul always, but they did it for about five hundred years, which is a long time, long enough to leave many of their words in the French language as it is spoken to-day.

We hear little more about the Romans in French history after another strong neighbouring people, the Franks, came and settled in Gaul. The Gauls were rather glad to have another protector against fresh invaders from the East, who were attacking them at that time. The Romans were not so strong as they had been and were kept busy by their own affairs at home. So the people of Gaul welcomed the Franks and chose a King from amongst them, and that is how Gaul changed its name to France.

SABO AND THE POOLS.

By E. W. LEWIS.



THERE were many pools among the rocks on the sea shore; some larger and some smaller; some of them very tiny little ones. The sea was their mother, and they were her children, but she always left them when the tide went out, and sometimes she seemed to go

very far away. So that you can understand how lonely and how just a little bit frightened the pools felt when they found themselves alone.

The larger pools did not have such a bad time. For, as soon as the tide was out, troops of children came down on to the shore and played with the pools all day. On the smooth water of some of them the children sailed their little boats, and had races, making good company with their shouts and laughter.

But the little pools, hidden away in the nooks and corners of the rocks, did not share in all this fun. Scarcely anybody ever came near to them. Therefore it was to the little pools that Sabo usually went; for he was little himself, and he knew what it was to be left alone.

With two of them especially Sabo became great friends. They were side by side, with only a

narrow ridge of rock between them. The first time he saw them, the tide had only just gone out, and the pools had tear-wet faces.

"Hello!" cried Sabo, "what's the matter?"

"Where's mother gone to?" asked one of the pools.

"She's gone and left me," complained the other.

"What fun!" cried Sabo. "Now we can play!"

"Won't she come back?" asked the pool.

"Of course she will," said Sabo. "She's not far away. Listen! You can hear her voice, can't you?" And when the two pools held themselves very still and listened, they could hear the sound of the sea across the sand.

"She's there right enough!" cried Sabo, and climbed a little way up the rocks. "I can see her!" he called back to the pools. "She's dancing away there at the edge of the sands in the sunshine, having a lovely time! She's enjoying herself; why shouldn't we play, too?"

"What can we play at?" asked the pools.

"Let's play hide-and-seek!" said Sabo.

"But we can't hide. We're always here," said the pools.

"I'll hide now behind this bit of rock, and now behind that bit of rock, or another somewhere else; and I'll peep out; and whichever of you first catches me peeping, wins."

And he gave names to the pools; one of them he called Crystal, and the other Brighteyes; and then he hid among the rocks, and crawled round about, and peeped out in all sorts of unexpected places. Sometimes Crystal won, and sometimes Brighteyes won; but whichever of them won, they were happy.

When they had played that game for some

time, Sabo said, "Now we'll go for a ride." So he straddled his legs across the narrow ridge of rock which divided the pools from each other. "I've ridden once on an elephant," he said, "and I've ridden in a race on a horse which was called Grey Lady and went as fast as the wind; but this is the finest back I ever sat on." And he called the name of his rocky horse "Rockmint." "Join hands!" he cried, put one hand into one pool and the other into the other pool.

He kicked his feet about in the water at either side of him, in order to make the pools feel that they were moving. "We'll gallop out to your mother!" he cried. "Now, Rockmint, show us what you can do!" He kicked with his feet, and swayed backward and forward with his body, and cried, "Now we're going it!"

Then he got off Rockmint's back and ran up the rocks to look out. The tide was coming in. "We're getting nearer to her!" he called to the pools. "Much nearer! That was a fine gallop!" and he got astride his horse again.

Sabo kicked the rock with his heels, and plashed the water, and on they went.

Sabo dismounted and ran a second time up the rocks to look out. The tide had come in very quickly, for the water was now almost gently upwards towards the sand and was lapped down; so that as soon as the tide had covered up one side of the slope, it came with a rush down the other. "Is our mother here?" he called to the little pools. "My word!" replied Sabo, "I should just think she is! She's at the very door! I must skeddaddle! It wouldn't do for her to catch me with you! She'd give me a fearful tanning! But we've had a jolly time, haven't we?" and Sabo raced away.

(Nov. 6th)

CONCLUSIONS

At: Walter + J. C. Broadbent

ANNOUNCER: John A. Filly, MD

"Stafon di Camera" Clarke (3)

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WIRELESS PROGRAMME—FRIDAY (Nov. 7th.)

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

Arthur J. Williams

"O.T.C. Marching Songs" (Collected and arranged by R. Stenning Bennett) (2)

(Continued)

"Under the British Flag" *Eighty*

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

Prof. LEONARD HILL, *S.B. from London.*

10.0. Songs that made the Empire.

10.30. Close down.

Announcer C. K. Parsons

12.30-1.30

—Organ Music by H. Fitzroy Page, relayed from the Picaulilly Picture Theatre.

2.10-3.0.—Broadcast for Schools: Father A. L. CORTIE, S. J., of Stonyhurst Observatory, on "The Arms and Science of Astronomy."

3.10-4.30.—Concert by the "EZY" Quartet.

4.30-5.0.—WOMEN'S HALF HOUR.

6.00-6.15.—CHILDREN'S CORNER.

6.30.—Mr. R. W. James, M.A., B.Sc., on "Antarctic Exploration—(2), Antarctic Pack Ice."

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

G. A. ATKINSON, *S.B. from London.*

7.30.—A Trip To Fairyland.

THE "EZY" ORCHESTRA.

Conductor, T. H. MORRISON

ESTHER MITCHELL (Soprano)

Orchestra

Overture, "The Butterfly Ball" (Cohen) (L.)

Selection, "Bian Bell in Fairyland" *Slaughter*

Entr'acte, "La Fée Tarapatapoun" *Fondola*

Soprano Songs.

"The Fairies Have Never" *Brewer (1)*

"The Fairy Pipers" *Orchestra.*

Scherzo, "A Midsummer Night's Dream" *at the ...*

Suite, "My Lady Dragon Fly" *Finck*

"Moonlight in the Forest and Nymphs" *Le ...*

"Danse de la Fée Dragon" *Chas ...*

Soprano Songs

"Big Lady Moon" *Coleridge-Taylor (1)*

"The Fairy Laundry" *at the ...*

Dance Intermezzi, "Les Sylphides" *Gustav ...*

Dream Music, "Hansel and Gretel" *Humperdinck*

Overture, "A Midsummer Night's Dream" *Mozart ...*

Soprano Songs.

"A Dream of Olden Days" *Sanderson (1)*

"The Pixie Piper Man" *Evans (23)*

Overture, "Le Lac de Fée" *Auber*

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

Prof. LEONARD HILL, *S.B. from London.*

Local News. Station Director's Talk

10.—THE PICAULILLY DANCE BAND, relayed from the Picaulilly Picture Theatre.

10.30. Close down.

Announcer: Victor Smythe.

NEWSVILLE

2.45-4.45.—John W. Patton (Tenor), E. J. Bell (Solo Flute), William Boyes (Solo Horn)

4.45-5.15.—WOMEN'S HALF HOUR.

5.15-6.0.—CHILDREN'S CORNER

6.0-6.30.—Scholars' Hour: Glynis M. Boden, M.A., on "Greek Legends—The Argonauts."

6.35-6.50.—Farmers' Corner: H. C. Pawson on "The Purchase and Use of Artificial Manure."

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

G. A. ATKINSON, *S.B. from London.*

Local News

SIDONIE GOOSSENS (Solo Harp). Accompanied by MAURICE JACKSON.

ROSINA WALL (Solo Violoncello). J. IN COATES (Cello)

ATGIVEN ED STATION ORCHESTRA. Conductor, EDWARD CLARK.

7.30. Overture in the Italian Style Schubert

7.45. John Coates. (1) English

"It Was a Lover and His Lass" *Thos. Morley-1600*

"Come Again" *John Dowland-1597*

"A H John ... 1657

"The Pretty Creature" *Stephen Storace-1763-1769*

7.55. "See Shien" *Eric Fogg*

8.5. "Speak Music" *Elgar (1)*

"The Thomson

"... .. Walter Whitaker

"... .. Coleridge-Taylor (11)

8.35. "Three Dances from German

8.55. "Two Ballads for Harp Eugene Goossens

9.10. "Phantasy for Viola and Orchestra Bar

9.20. "Quintet for Harp and Strings Bar

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

Prof. LEONARD HILL, *S.B. from London.*

Local News.

10.0. Orchestra

10.30. Close down.

Announcer: W. M. Shen.

GLASGOW.

3.30-5.0.—Popular Afternoon

5.15-6.0.—CHILDREN'S CORNER

6.5-6.15.—Canon Jones on "Aberlour Orphanage."

6.30.—Agriculture Notes: Thomas Hutchison on "The Progress of Agricultural En-

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

7.15.—OPENING OF THE NEW STUDIO. *S.B. from Glasgow.*

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

9.40.—Programme, *S.B. from Glasgow.*

10.30.—Close down.

Announcer: H. J. M. Kee.

3.30-4.0.—Broadcast to Schools: Talks on History and French. The Wireless

4.0-5.15.—The Wireless Quartet, Miller Reid (Baritone), Miss Gunn, of Glasgow and West of Scotland College of Domestic

Science, on "Catering for the Week

5.15-6.0.—CHILDREN'S CORNER.

6.0-6.5.—Weather programme for Farmers.

6.40-6.55.—Mr. Douglas V. Stewart on "Har-

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

Local News

Opening of the New Studio.

S.B. to Aberdeen and Edinburgh.

THE STATION CHOIR

and

SYMPHONY ORCHESTRA

NORMAN ALLIN (Bass).

INA FERGUSON (Soprano).

JAMES NEWELL (Tenor).

F. E. DOBIE (Baritone)

PIPE BAND OF SEVENTH (GLYTHS-WOOD) BATT. THE HIGHLAND

LIGHT INFANTRY

(By Kind permission of Lieut. Col. G. P. Linton, O.B.E., M.C., T.D., and Officers.)

Pipe Major, ROBERT REID

7.15. Selection, "Scottish Airs."

Strathspey, "Brace o' Mar"

Reel, "High Road to Linton."

7.30.—The Hon. The LORD PROVOST OF GLASGOW—M. W. MONTGOMERY

Esq.

Sir CHARLES CLIFLAND, K.B.E.

ORCHESTRA

Conducted by Sir LANDON RONALD

Overture, "Zampa" *Herold*

7.50. "She Alone Charmeth My Sadness" ("The Queen of Sheba") *Gounod*

"Vulcan Song" ("Philemon and Baucis") *Gounod*

(With Orchestra.)

8.0. Scotch Symphony *Mendelssohn*

8.35. "The Witcher's Flight" *Pries*

"Donny George Campbell" *Reid*

"... .. Out English

8.45. Orchestra. *Scottish*

Pastorale ("Le Roi d'Amour") *Liszt*

"Le Cygne" (by Request) *Saint-Saëns*

Prelude to Act I, "L'Amant" *Debussy*

Suite, "Peer Gynt" *Enescu*

9.30. Prof. R. B. RAIT G.B.F., LL.D.

The Rev. JOHN WHITE, D.D.

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

9.40. "DONNY KILMENY" (Op. 2).

A Ballad for Soprano, Tenor and Baritone

Solos, Chorus and Orchestra.

Conducted by

HERBERT A. CARPENTERS

The words adapted and arranged from

Hogg's "Queen's Wake" by J. M. G.

Music by Hamish MacCunn.

Kilmenny, a beautiful maiden, wanders from her home in the country away into the solitudes of a wood, in quest of flowers and fruit, and to listen to the melody of birds. Tired with her ramble, she lies down to rest in a quiet nook, which, proving to be the haunt of the faeries, she falls under their enchantment, is lulled into deep sleep, and spirited away to Faery Land. After seven years she begs to be allowed to return to her own country, that she may tell of the glories of the unseen land. Permission is granted, and she returns one day—

"late, late in the gloaming" Kilmenny came hither." Begged to tell where she had been, she recounts some of the wonders she saw there, but after a brief period she is constrained to return to the "land of thought," and is never again seen on earth.

Orchestra.

Overture, "Land of the Mountain and the Flood" *MacMillan*

Fantasy on Four Scots Airs *Charles MacPherson*

Rhapsodie Ecossaise *Mackenzie*

10.30. Close down.

Announcer: D. Miller Craig.

A number against a musical name indicates the number of its publisher. A key list of publishers will be found on page 257.

WIRELESS PROGRAMME—SATURDAY (Nov. 8th.)

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

1.0-5.30. Time Signal from Greenwich.
WILLIAM PARKYN (Entertainer).
MARION BROWNE (Soprano).
IVOR WALTERS (Tenor).
THE GREAT CENTRAL AND METROPOLITAN SILVER PRIZE BAND.
W. SMITH.

The Best Known French Writer—(1).
"Alphonse Daudet," by Madame de Walmon.

The Domestic Service Problem—(2), from a Professional Woman's Point of View.

1.30-6.15.—CHILDREN'S CORNER. The Adventures of a Cockroach," from Nature Stories by Joan Kennedy. Children's News. Made by the Octet. "Talk on Music, by O. Whitaker-Wilson, with illustration by the Octet."

6.40-6.50.—Mr. N. Hardy Wallis, M.A., on "Poetry."

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

Prof. A. J. IRELAND: "Episodes in the History of England—The Coming of Teutonic Conquerors."

7.30. THE "ROOSTERS" CONCERT PARTY and THE WIRELESS ORCHESTRA, Conducted by DAN GODFREY, Junior, in a GRAND SEEMINGLY CONCERT. S.B. to other Stations.

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

A Song Cycle: "The Fall of Tyre" A. Cranke

(1) "A General Hub-Hub"; (2) "For Wheel or Woe"; (3) "A Few Handkerchiefs"; (4) "A Song of the Mud-Flats."

"Iwash" (Concerted Movement in Asia Minor).

"(H)are from Barbary: Bobbed or Shagadel?"

"Simon the Celery" (arranged for Strings). Dan Godfrey, Junior, as a Lightning Conductor.

"The Old Maid Shawl" (A Wrapsody).
"Whose Zoo?" (Sonata 9 p.m. or thereabouts).

"What Opus?"

"A Furniture Suite in A Flat" O. N. Hyre

(1) Chair, Boys, Chair! (2) "A Tonin Soft" (3) Pass Down the Car, Pet" (4) "The Dinner Wagon."

Dan Godfrey, Junior, Makes more Overtures.

"The Milkmaid's Dilemma: A Knocked-Out!"

A Fugue-ood Stories.

"Every Little Yelps" (A Barker-rôle).

(All or more of these items may be given, but something is bound to happen).

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

Mr. HARRY E. HASLAM on "Hockey Topics." S.B. to all Stations.

Local News.

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

12.0.—Close down.

Announcer: J. S. Dodgson.

BIRMINGHAM.

3.30-4.30. Children's Concert: The Station Orchestra, Dorothy Clark (Contralto). Joseph Lewis: "Musical Appreciations, with Illustrations."

5.0-5.30.—WOMEN'S CORNER. A. B. Russell, B.Sc., Home Crafts Club No. 7, "The Importance of Accessory Food Factors for Growing Children."

5.30-6.30.—CHILDREN'S CORNER: Annie Phil and another Snooky Adventure.

6.30-6.45. "Teens' Corner, Scare Brough on "Curiousness of St. Paulinus."

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

Mr. M. Stuart Miller (of the After-Care Department, Birmingham Education Council) on "The House of Careers for Children."

Local News.

7.30. "A TALE OF TWO CITIES" (Charles Dickens).

Produced by the STATION PLAYERS, Under the Direction of WILLIAM MACREADY.

(By arrangement with Harold Rayner.)
Cast in order of arrival in the Story:

Finest Defarge... WILLIAM MACREADY
Madame Defarge... ETHEL MALPAS
Marquis St. Evrémonde

E. STUART VINDEFN
Baronnet... DONALD EDWARDS
Mr. Jarvis Lorry... JOSEPH LEWIS
Lucie Manette... EDNA LESTER
Dr. Alexandre Manette

FRANK V. FENN
The Play

Mignon... EDNA GODFREY TURNER
Charles Darnay... E. STUART VINDEFN
Mr. Lorry... JOSEPH LEWIS
Sidney Carton... JOSEPH LEWIS

Dr. Manette... FRANK V. FENN
Ernest Defarge... WILLIAM MACREADY
Madame Defarge... ETHEL MALPAS
President of the Tribunal

Prologue: Defarge's Wine Shop, Rue St. Antoine, Paris.

Act I. Sidney Carton's Chambers, London.

Act II. Dr. Manette's Garden, Soho.

Act III. Scene 1.—A Street in Paris.
Scene 2.—The Revolutionary Tribunal, Paris.

LECTURE EXPLIQUÉE.

The following is a summary of the lecture given by Mr. J. S. Dodgson on the subject of "The French Revolution."

Mes deux frères et moi, nous étions tous enfants, les pères nous disaient "Jouez, mais ne dansez pas!"

Qu'un marié dans les fleurs et qu'on monte aux chaises. Abel était l'ainé, il était le plus petit.

Nous mangions notre pain de si bon appétit que les femmes criaient quand nous passions près d'elles.

Nous marchions, pour jouer, au grand air, nous étions si contents, nous étions si heureux.

Tout à coup, un jour, nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

Sur le haut d'une armoire, un livre incommensurable.

Nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

Je me souviens bien que c'était une nuit, mais je ne sais pas si c'était une nuit ou si c'était un jour.

Nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

Nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

Nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

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DICTÉE.

The following is a summary of the lecture given by Mr. J. S. Dodgson on the subject of "The French Revolution."

Mes deux frères et moi, nous étions tous enfants, les pères nous disaient "Jouez, mais ne dansez pas!"

Qu'un marié dans les fleurs et qu'on monte aux chaises. Abel était l'ainé, il était le plus petit.

Nous mangions notre pain de si bon appétit que les femmes criaient quand nous passions près d'elles.

Nous marchions, pour jouer, au grand air, nous étions si contents, nous étions si heureux.

Tout à coup, un jour, nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

Sur le haut d'une armoire, un livre incommensurable.

Nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

Je me souviens bien que c'était une nuit, mais je ne sais pas si c'était une nuit ou si c'était un jour.

Nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

Nous étions tous ensemble, nous étions tous ensemble, nous étions tous ensemble.

Act IV. Scene 1.—Mr. Lorry's Chambers at Tellson's, Paris.

Scene 2.—A Cell in the Prison.

Scene 3.—The Guillotine. Incidental Music by the STATION ORCHESTRA.

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

Mr. HARRY E. HASLAM S.B. from London.

Local News and Football Review.

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

12.0.—Close down.

Announcer: J. C. S. Paterson.

BOURNEMOUTH.

3.30-5.0.—The Warrnetts Orchestra, Conducted by Capt. W. A. Featherstone, Norma Fleming (Entertainer). Talk to Women: "The Opening Theatre at Home," by a Nurse, A. E. Nickolds (Solo Banjo).

5.0-6.0.—CHILDREN'S CORNER.

6.0-6.30.—Scholars' Half Hour. A. S. White on "Coal Tar."

6.30-6.50.—Miss A. D. Flower, F.E.S., F.R.E.S., on "Bee-Keeping."

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

Mr. W. G. MITCHELL, B.Sc., F.R.A.S., on "Wireless Lighthouses."

Local News.

7.30.—Programme S.B. from London.

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

Mr. HARRY E. HASLAM S.B. from London.

Local News.

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

12.0.—Close down.

Announcer: John H. Rayner.

CARDIFF.

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

5.0-5.30.—"THE SIX O'CLOCK," Talks to Women. Vocal and Instrumental.

5.45-6.00.—CHILDREN'S CORNER.

6.45-7.0.—Mr. J. W. Burr, M.I.E.E., on "Electricity."

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

WILLIE O. CLIFFITT on "Sport of the Week." Local News.

7.30.—Programme S.B. from London.

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

Mr. HARRY E. HASLAM S.B. from London.

Local News.

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

12.0.—Close down.

Announcer: A. R. Goddard.

MANCHESTER.

3.30-4.30.—Lecture on "Grieg," by Moses Hertz, illustrated by Gramophone Records.

4.30-5.0.—WOMEN'S HALF HOUR: Jean Forrest.

5.0-6.0.—CHILDREN'S CORNER.

6.30-6.55. Song Recital by WILLIAM HESPIANE (Tenor).

"Love Waltz & Riding" } Frank Bridge

"Lobelia" } "Sweet Love" } Hugo Wolf

"The Gardener" } "I Love Thee" } Georg

"So Remember My Son" } "For Eyes So Alluring" } Morley II)

"There I'll Sing" } "There I'll Sing" } Various & White

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

Mr. F. STACEY LINTOTT on "Sport."

Local News.

A number against a musical name indicates the name of its publisher. A key list of publishers will be found on page 257.

WIRELESS PROGRAMME—SATURDAY (Nov. 8th.)

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

7.30.—Programme S.B. from London.

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

Mr. HARRY E. HASLAM. S.B. from London. Local News.

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

12.0.—Close down.

Announcer: Victor Smythe.

NEWCASTLE.

3.15-4.45. Concert: The "5NO" Sextet.

4.45-5.15. WOMEN'S HALF HOUR: Miss A. H. Ross on "Weathercraft." Una Rodenhurst: Recitation, "The Victim" (Tennyson).

6.0-6.30. CHILDREN'S CORNER.

6.0-6.30. Scholars' Half Hour. Mr. I. G. on "H. S. F. L. C. M. H. S. on 'The Lost Continent.' A boy's.

6.35-8.00.—Farmers' Corner. Mr. R. W. Whiston on "The Management of Farms." Local News.

7.0.—WEATHER FORECAST and NEWS. S.B. from London. Local News.

7.15-8.30. Concert.

THE ELECTRIC SPARKS CONCERT PARTY.

HARRY M. PELL. Solo Cornet.

THE STATION ORCHESTRA.

Conductor EDWARD CLARK.

7.30. Orchestra.

3.45. "Manhattan Beach" *Smiles*
Waltz, "Mon Rêve" *Waldteufel*

7.1. Concert Party.

Opening Chorus, "Walk Up!" *Low (7)*
E. RICHARDSON (Tenor).

"Between the Showers" *Silberman (9)*

Concerted.

"The Night Light" *Nash (13)*

8.0. Harry M. Pell.

"Love's Old Sweet Song" *Motley (1)*

"A Perfect Day" *Jacobs Band*

8.10. Orchestra.

"A Hunting Scene" *Hurricanes*

8.20. Concert Party.

G. COUTTS (Entertainer).

"Modern Languages" *Edwards*

R. LEWINE (Comedian).

"Riley's Cowshed" *Damerell and Hargreaves (9)*

Concerted.

"What Mary Had" *Cecil (13)*

8.35. Harry M. Pell.

"Parted" *Toni*

"If I Might Come to You" *Squire (1)*

"I Said" *Samuelson (1)*

8.50. Orchestra.

"Manon" *Marschner Taran*

9.0. Concert Party.

J. HUDSON (Educationalist).

"Cognette" *Moore (13)*

Concerted.

"Fancy versus Fact" *Henry (13)*

9.15. Orchestra.

Hungarian Rhapsody, No. 2 *Liszt*

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

Mr. HARRY E. HASLAM. S.B. from London. Local News.

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

12.0.—Close down.

Announcer: W. M. Shewen.

GLASGOW.

3.30-5.0.—Popular Afternoon: The Bon Accord. Entertainment. Programme Topics, Netta.

5.30-6.0.—CHILDREN'S CORNER: Songs by Cousin Marjorie.

6.40.—This Week's Interesting Anniversary. Prepared by John Spitzky Kirkland. "Inkerman," November 5th, 1834.

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

C. EDWARD WATT, M.A., on "Some Canadian Echoes." Local News.

Operatic Night.

ALAN MCCREDIE (Tenor).

THE STATION OPERATIC CHORUS.

THE WIRELESS ORCHESTRA.

CONDUCTOR: ARTHUR COLLINGSWOOD.

7.30. Orchestra.

Overture, "Rienzi" *Wagner*

7.45. Grand Opera in Montreux.

"FAUST" (Grand).

8.45. Orchestra.

Selection, "Coppelia" *Delibes*

8.50. Alex. McCredie.

"On With the Motley" ("I Pagliacci") *Verdi*

"Spirto Gentil" ("La Favorita") *Donizetti*

9.0. Orchestra.

Overture, "Leda di Lammormoor" *Donizetti*

9.15. Alex. McCredie.

"Quarta O Quella" ("Rigoletto") *Verdi*

9.30.—Talk. S.B. from Glasgow.

KEY LIST OF MUSIC PUBLISHERS.

1. Boosey and Co.
2. Curwen, J., and Sons, Ltd.
3. Herman Datewski Music Publishing Co.
4. Ekin and Co., Ltd.
5. Enoch and Sons.
6. Feldman, B., and Co.
7. Francis, Day and Hunter.
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9. Lawrence Wright Music Co.
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31. Keith Frowse and Co., Ltd.
32. Warton David Ltd.
33. A. J. Stacey Music Co., Ltd.
34. Patterson, Sons and Co., Ltd.

(In the Manchester programme on page 151 of our issue dated 11th Nov. 24, we gave the incorrect number of the page on which the "Lost To Time" item (Lithograph) was set by Messrs. Chappell & Co., Ltd., of 20, New Bond Street, London, W.1.)

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

Mr. HARRY E. HASLAM. S.B. from London. Local News.

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

12.0.—Close down.

Announcer: W. D. Simpson.

GLASGOW.

11.0-12.0 noon. Rehearsal for "550 S" Radio Circle Choir.

3.30-4.50.—The Wireless Quartet. K. H. Ellis (Bass). Afternoon Topics.

5.15-6.0.—CHILDREN'S CORNER: "550 S" Radio Circle Choir. A Play, "Why" from "Tiny Plays for Tiny People," by E. V. Featheringham. A Tea Party with the Fairies.

6.0-6.5.—Weather Forecast for Farmers.

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

Prof. C. G. BARKLA. S.B. from Edinburgh.

Glasgow Radio Society Talk. Local News.

7.35. Glasgow Shopping Series-3.

"BUYING GOLF CLUBS!"

Specially written for Broadcast and Produced by HALBERT TATLOCK.

(Characters.)

(In order of their first speaking.)

That Expert Gopher!

That Credulous Fanatic!

That Tactful Salesman!

Scene: That Sports Shop you know in Scotland.

Time: Her birthday—the afternoon before the holidays.

Incidental Music by

THE STATION ORCHESTRA.

Conducted by ISAAC LOSOWSKY.

Dance Night.

THE STATION ORCHESTRA.

DANIEL SEYMOUR (Tenor)

will sing the Vocal Numbers and Choruses.

7.50. Fox-trot "Don't Mind the Rain" (7);

Fox-trot "Turned Up" (6); One-step,

"The Carnival Time Once More";

Waltz "Forever Love"; Fox-trot,

"Some Girl" (23); Tango, "Lee

Nation"; Fox-trot, "Cowboy Joe"

(9); Eightsome Reel, Short Foursome

Reel; Fox-trot, "It Ain't Gonna Ru

No More" (7); Fox-trot Tango, "Spain"

(7); One-step, "Jography" (10);

Waltz, "Crease Me Close in Your Arms"

(31); Fox-trot, "That Forgotten

Melody" (from Charlotte's Revue); Fox-

trot, "Monavanna" (6).

8.0.—ANOTHER VOYAGE OF DISCOVERY!

Produced by "Soosie," the Station Girl.

9.10.—Reading of Talk by Professor Leonard

H.J., of the Ministry of Health, on "Light, Open-Air and Health." S.B. to

Aberdeen and Edinburgh.

9.30.—WEATHER FORECAST and NEWS.

S.B. from London.

Mr. HARRY E. HASLAM. S.B. from

London. Local News.

10.0.—THE SAVOY BANDS. S.B. from

London.

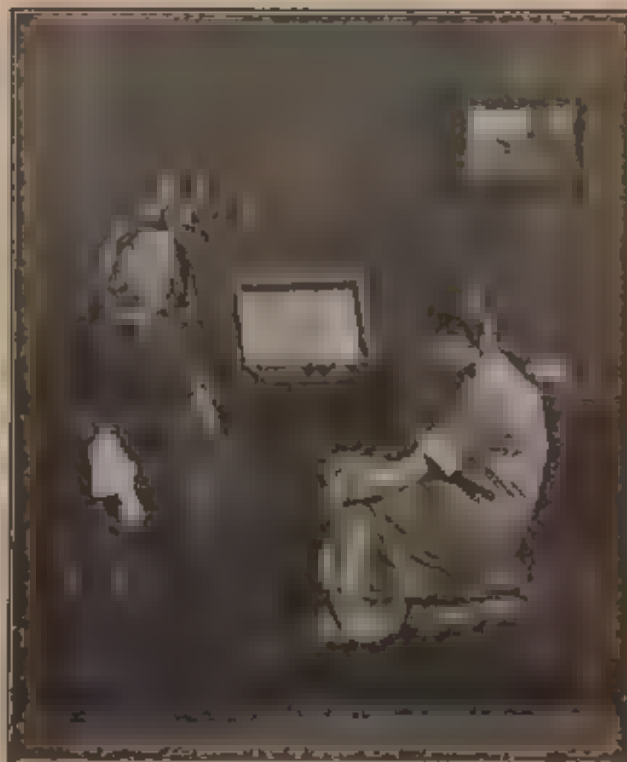
12.0.—Close down.

Announcer: R. Elliot K.

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

WIRELESS SETS SIEMENS AND ACCESSORIES

Overall dimensions,
Approx. 15½ x 11 x 10½ ins. high.



PRICE of set, complete
and ready for use, including
two pairs of head
telephones, £38.

Listening-in with Siemens Portable Set.
NO AERIAL—NO EARTH.

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4,000 " £1 5 0

SIEMENS BROTHERS & CO. LIMITED
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BRANCHES: LONDON - 10, Abchurch Lane; LIVERPOOL - 10, South Street; MANCHESTER - 10, Market Street; SHEFFIELD - 30, 32, West Gate; SOUTHAMPTON - 45, High Street.

The Wireless Way to Peace.

Radio and the Brotherhood of Man. By Mrs. Patrick MacGill.

Mrs. Patrick MacGill is the wife of the well-known author, and she has herself written a number of successful novels, including "An Aztec's Bride," "When Love Hath Charms," and "Shifting Sands."

It was my privilege to be present when Lord Rothery said of the wonderful All Britain Wireless Exhibition, recently held at the Albert Hall: "It is sheer wizardry, a most remarkable thing."

As I was shown round the terrifyingly complex stalls, the contents of which all proved so simple when explained, the fact was indeed made manifest to my consciousness that Science is yielding us the very marrow of her bones—men are wresting from her the secrets of her innermost soul.

I have no patience with the destructive—seldom constructive—criticism which is frequently levelled at this invention, which has hardly got over the pangs of birth, and which even a nursery survey of the daily Press will serve to show has already justified itself in abundant measure.

The Cynic Answered.

They ride far whose steeds are the clouds, and an invention which can illumine the last Great Silence of all—a dying man, hearing a hymn which was being sung in some great cathedral, said, with touching pathos, "Thank God for wireless"; which can save life itself—a doctor saved a man's life at a distance of a hundred miles at sea by prescribing for him in time; an invention which is so richly useful as well as comforting to the soul of mankind, is surely sufficient answer to the cynic who says, with raised brows, "Yes, very nice, and all that, but it won't do."

But these uses, pleasant as they are, only skim the surface of the great, fundamental services of radio to the world.

A World at Peace.

In company with the old prophets and seers, with Campanella, and, and many more, I have a dream of a world when men shall live at peace with one another, not a dream by hatred and mis-understandings due primarily, I am firmly convinced, to ignorance rather than to an inherent love of war and a lack of a tolerant horror.

It was with joy that I learned that radio had succeeded in far-off India, America, and other countries, for with the means of such a means of communication at their command, the inhabitants of the lands across our seas could come and be viewed with the same eye, which is a cause for a strange thrill to contrast the foreigner and even sometimes to recognize a man as if he were some strange specimen of a well-known insect!

Life's Main Object.

When custom makes the listening to other countries an ordinary, everyday occurrence, when ideas on the things that matter can be exchanged, and something fresh about the lives, habits, and views of other nations learned day by day, then those who are at present lumped vaguely together in many minds as "foreigners" will become familiar, and minds will blossom and broaden—surely, a desirable thing!—for growth makes for progress, which is, or should be, the main object of life, both in the mass and the individual.

I can see radio doing more for this country

than ambassadors, politicians, or even princes, for where people are mutually amused, understanding and tolerance will inevitably follow.

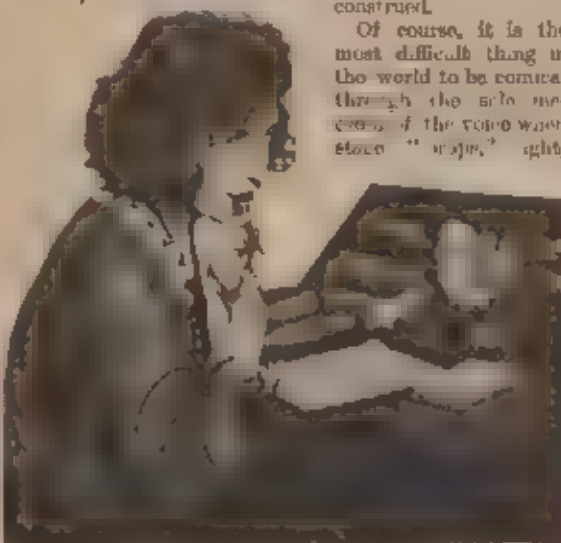
With regard to the programmes provided by the B.B.C. for the many thousands of listeners in the country, I think that, generally speaking, the standard is a high one, when one takes into consideration the length of time that the company has been in existence, and the difficulties that always attend any new venture.

Musing "Atmosphere."

Book reviews, debates, lectures, opera, and plays for the more serious minded patrons—I have not heard whether the professional services of a "dinner-out" or motor expert have ever been requisitioned, but they would undoubtedly be engaged if there were a demand for them—and dance music, comic songs, and humorous entertainment for those who prefer lighter fare.

As I understand that criticism is invited, perhaps a word on the comparative failure of some of the humorous efforts may not be misconstrued.

Of course, it is the most difficult thing in the world to be comical through the air, and even if the voice when alone "makes" light,



Mrs. Patrick MacGill.

eccentric clothing, exaggerated "make-up," and the stimulus of that strange, elusive something which, for want of a better word, we call "atmosphere," are all missing.

All of which points to the need for more particular care in the choice of wireless material than for that which is to be conveyed to the hearer in the ordinary way.

It is wonderful how spontaneous and sincere is the response to genuine art on the part of those who have had little or no opportunity for culture, as the term is generally understood.

I have sat in a cheap music-hall in the poorest part of London and seen a would-be comic turn wither before the openly expressed scorn and ridicule of those who had paid to see the show. I trembled for the artist who had the courage calmly to announce the beautiful little poem, "On Bredon Hill," and I thrilled to the appreciative silence and subsequent burst of applause with which it was received; but I did not marvel, for the reciter was an artist, and art, thank Heaven! enfolds all but drives in its magic spell, without regard to poverty or wealth, race, creed, or caste.

If I have a request to make, it is to plead for the broadcasting of more gems of poetical thought, for, though they may be of the stuff of dreams, yet life is often hard, and a beautiful dream is a glad thing.

Ether Fishing.

How to Recognize Foreign Stations.

POSSESSORS of multi-valve sets, when searching for long-distance telephone, frequently experience difficulty in identifying the station which they have successfully "hooked." This is, however, somewhat easier to do than would appear at the outset. Most of the foreign broadcasting stations, although not always prone to repeat their call-signs at regular intervals, possess certain "signals" which help the ether angler to label his catch. In most cases the language heard (this sounds equivocal) will definitely establish the land from which the sounds emanate, but it must be borne in mind that German, for instance, is broadcast from at least four different countries.

Identified at Once.

France offers no difficulty whatever, both the Eiffel Tower and Radio-Paris being recognizable at once owing to their power and relatively high wave-length. The latter are easily caught on a vacuum-tube set. "RT" (Radio Tour Eiffel) is broadcast from the Eiffel Tower, and "Le Petit Parisien" establish their identity by several times during the hour.

"SRB" is received on a wave-length well below those possessed by the B.B.C. Stations, and stands isolated from all others. The announcer does not fail to let you know that he is broadcasting from the Eiffel Tower.

As regards the German broadcasting stations, Koenigsweusterhausen can be quickly labelled by the fact that, on the condensers, it is in the neighbourhood of the Eiffel Tower, and only functions on Sunday mornings before lunch. The Vox Haus (Berlin) announcer starts his programme with an emphatic "Achtung! Achtung!" (Attention! Attention!) and the Hamburg station opens the proceedings with a blow on a dinner-gong, and punctuates intervals with similar signals, the strokes indicating the number of minutes the listeners are requested to wait. Its programme also concludes with a ten-minute news bulletin in English.

A Clue to Germany.

Breslau, during a pause, makes use of a loud-ticking metronome in lieu of a tuning-in signal. The cheery "Hier Frankfurt am Main" cannot be mistaken.

The fact that all German stations conclude their programme with the National Anthem, "Heil Dir im Siegerkranz," a similar melody to our "God Save the King," proves definitely that the programme heard emanates from Germany, and not from other German-speaking countries.

Vienna, a new station, is not so easy to catch, but the announcer is proud of "Radio-Wien" (pronounced "Veen"), and does not omit to repeat the call frequently.

Switzerland Not Often Heard.

Of the Swiss stations, Zurich also broadcasts in German, but can be identified by the fact that its position, in the wireless receiver, is just off the tantalizing shipping Morse. Geneva and Lausanne use the French language, the former only broadcasting in the middle of the day. They are of comparatively weak energy, and not often received over here.

Holland possesses several stations which frequently give out the programme items in both Dutch and English. The new Madrid station, which can now be heard most evenings, possesses a fluent announcer, and his repeated call, "Radio Iberica," leaves the listener no doubt as to his location.

Rome, now a powerful unit, is a fairly easy catch. If you hear a melodious language and an announcement recalling a recitative in grand opera, you can put the voice down as belonging to "Unione Radiofonica Italiana." J.G.A.

What Happens When You Hear.

A Talk from London, by Sir WILLIAM H. BRAGG, F.R.S.

THE question, "What is Sound?" is a very natural question to ask, since we make such great use of sound and of the capacity of our ears to detect it. If we try to consider it in a broad way, we shall find that sound provides an obviously direct and efficient way of communicating with each other.

All round us are material objects of many kinds, and it is quite difficult to move without shaking some of them more or less. If we walk about on the floor, it quivers a little under the fall of our feet; if we put down a cup on the table, we cannot avoid giving a small vibration to the table and the cup. If an animal walks in the forest, it must often shake the leaves or the twigs of the grass, and unless it walks softly with padded feet, it shakes the ground. The motions may be very minute, far too small to see, but they are there, nevertheless.

The Ocean of Air.

Besides the obvious surroundings of material things, there is an ocean of air in which we live. We cannot move without stirring it; and, moreover, whenever we make anything else move, as when we shake the ground, or the branches, or the table, or whatever it may be, the air is shaken too, because it touches all these objects and moves when they move. It is very easy to set the air quivering, and when once a quiver is started, it runs through the air in all directions till it has spread and weakened and died away. Also it is a very curious thing that the air can carry over so many quivers at the same time, going in many different directions, and of many varieties. But each travels as if there were no other there.

A World of Sound.

Now, since nothing can be done without starting shakes and quivers, in solids, or in liquids, or in air, in some or all of them, and since it is so important to everyone to know what is happening round about him, so far as it is possible to do so, it is not surprising to find that we human beings, and most animals, possess organs especially fitted to detect these shakes and quivers, and that we make great use of them.

The ear is marvellously sensitive to the minute quiverings that come to it through the air, and these pass down the tube of the ear and come finally to the delicate organs within. We say that we hear a sound, which means that somewhere or other an air quiver has been started, and has reached our ears. As the life and processes of the world go on, the actions which take place are accompanied by these tremors, and we live in this world of sound.

Our Wonderful Ears.

We can interpret what we hear because all the tremors are different and we have learnt to know them all. We can tell the sort of tremor that is made by the rustle of the leaves from the sort that is made by thunder or the call of an animal. In fact, it seems quite absurd to think that there is anything wonderful in it, because the "sounds seem so different." But, of course, that is just where the wonder lies; only our tremors in every case, and yet the ear has such marvellous powers that it can sort them all out from each other, can tell one person's voice from another, can tell one word from another, can even tell by the minutely differing shades of inflection, the spirit that lies behind the word.

No doubt the reason why ears can be and are so finely trained is because the information they give is so important and so interesting. Sometimes it is a matter of life or death, as in

the case of the animal who hunts or of the animal that is hunted.

It is everything to us to be able to talk to our friends, or to use our voices, and to set in motion air quiverings that have special meanings to those that hear them. If we walked in the country, how much we should miss if we could not hear the birds or the wind or the brook, or the passers-by! Think what it would mean to us if we could have no singing and no music. The quiverings of the air, and our ears that hear them, link us closely to the world about us and to our fellow-creatures.

Hearing Through a Rod.

We can readily find illustrations of the passage of the tremors of sound through materials. When a building is warmed by hot-water pipes, the sound of a blow on a pipe in one part of a building is carried through the whole system; it sounds almost as clearly as if it were made in the room in which we are listening.

In the Royal Institution there is an arrangement for a special experiment in illustration of the point. A wooden rod about forty feet long rests on the sounding board of a musical-box in the basement. The rod passes upwards through two floors into the lecture-room. In passing through each floor it is kept from contact with the wood by a soft felt pad. Now, the tremors of the musical-box pass along the rod, and if an ear is placed close enough to the top end of the rod, still better, if any part of the head is pressed against it, the sound is easily heard.

The Wood and the Tuning Fork.

If a solid body, not too heavy, and having a large surface, is laid on the top of the rod, the sound fills the room. A tea tray, or a violin, serves very well, even a hat will do. The fact is that when the tremors reach the top of the rod, they do not give enough motion to the air; the cross section of the rod is too small. Some bigger surface is wanted which will move with the rod, when pressed on it; and will give sufficient motion to the air, so that all in the room can hear.

We require, in fact, what is called a sounding-board. We have the same effect when we use a tuning fork. If we hold it in the air after we have struck it, we hear only a feeble sound, because the quivering prongs of the fork do not impart much motion to the air; their surface is too small. So we plant the fork upon the table, and the sound there rings out strongly. The fork now shakes the table, and the table, with its large surface, puts far more disturbance into the air than the fork was able to do alone.

String Telephones.

There was a time when string telephones were popular as toys. One talked into a little box, the base of which was made of parchment; one end of which was fastened to the middle point of the box, and the other end was fastened in the same way to the base of a similar box. It was necessary to keep the string tight; the sound tremors travelled along the string, shook the base of the receiving box, which shook the air, which shook the listening mechanism of the ear.

Sound can be carried by water and other liquids, as well as by solids. When two boats are close together, it is easy for those who are in one to hear blows on the hull of the other, the sound tremors being carried by the water. It is possible to send communications in this way. That sound can be carried by gases such as the air is, of course, our common experience.

Sound cannot pass through a vacuum, however; it requires something material to carry it, solid, liquid, or gas. Between us and the sun there is space, empty of gas or air or any substance. No sound can travel across such a space. Light, on the other hand, travels quite easily. Light and our eyes that see it deal with the doings of the whole universe; sound belongs to the world only. I may talk of the universe of light, but I can only talk of the world of sound.

A Mile in Five Seconds.

As soon as you understand that sound is a quivering motion which goes from one place to another, you will realize that most likely it takes a certain time to make the journey, and so it does. When, for example, a sound travels through the air, it takes nearly five seconds to go a mile, and it is a very strange thing that all sorts of sounds, shrill whistles and deep boomings, take just the same amount of time to travel.

It is a very common thing to find examples of the fact that sound takes time to travel. If you are standing on one side of a valley and you watch a train approach a station a mile or two away on the other side, you may notice when the steam first issues in a white cloud from the whistle as the engine-driver gives warning that he is coming, and light travels so fast that you see the steam practically at the instant that the engine-driver opens his whistle. But it may be many seconds before you hear it.

Seeing Before Hearing.

I have often watched the woodcutters at work in Australia, where the clear, still air makes it easy to see and hear at long distances. From one side of a wide gully I have seen the strokes of the axe fall noiselessly far away on the other side, and then when the man has straightened himself and begun to move away the noise of the blows has reached my ears. If you watch a long procession going along a street, marching to the music that heads it, every man puts his foot down at the beat of the drum; but, of course, the rear ranks do not hear it as soon as the front ranks, so that really they do not march in step. If you look sharply, you will see a ripple run along the line as the heads go up and down slightly to the movement of the feet.

A Form of Wave Motion.

The tremors of sound in the air spread away from the source in the way that waves spread in the sea, and they can turn a corner just as sea waves can. But there is a limit to what they can do in this respect. Obstacles that are much wider than the waves are long can hold up the sound waves and cast a sound shadow; just as there is a sheltered lee behind an island. But a small rock casts no appreciable shadow of the ocean swell, and, in the same way, sound sweeps round and over small obstacles, so that we hear round a corner to a very useful extent.

To conclude, the answer to the question "What is Sound?" may be stated very simply. Now, nothing can take place without starting tremors or quiverings, and in particular quiverings in the air. Our ears are organs adapted for the detection and interpretation of the quiverings. The quiverings are sound, and our detection of them is hearing. Sound is one form of wave motion: the waves on the surface of the sea are another. The analogy between them is so strong that the behaviour of the water waves which we can see helps us to understand the laws of the sound waves which we hear, but do not see.



What one man saw in a blackened bulb

THE history of progress is tied up with trivialities. Newton made history under an apple tree; Watts saw it in a tea kettle. Modern "wireless" came from a blackened bulb. It was an ordinary carbon filament lamp. Everybody knew that it turned black as it grew older. One man wondered why—and made it his business to find out. What he found was the principle of the thermionic valve. Dr. Fleming was the man

and his experimental valve was made in the Ediswan Laboratories.

That was 30 years ago. Since then many developments have taken place in the evolution of the valve. Ediswan Valves retain the lead they won in the early days of wireless. They are wholly reliable—experienced workers and careful testing see to that.

Ediswan Valves will bring the best out of your wireless set—get some on the way home and enjoy a better programme from to-night onwards. All dealers sell them.

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VALVES

An interesting study of early wireless sets may be made at the Science Museum, South Kensington, London, where the complete series of Dr. Fleming's experimental valves can be seen.

Belfast Programme.

(Continued from page 259.)

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

Prof. LEY NARD HILL. S.B. from London.

Local News.

10.0.—Close down.

Announcer: E. J. Thomson.

MONDAY, November 3rd.

4.0-5.0.—The "ZBE" Trio.

5.30-6.15.—CHILDREN'S CORNER.

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

Prof. G. G. BARKLA. S.B. from Edinburgh.

Local News.

Vocal and Dance Music.

(Each Pair of Dances Eight Minutes.)

THE BELFAST MAYFAIR GLEE

W. J. A. K. (1st Tenor),

F. M. A. (2nd Tenor),

T. McALPIN (1st Bass),

D. McALPIN (2nd Bass),

THE STATION ORCHESTRA.

7.30

F. A. (1st Tenor), "In the Evening" (31); "Any

Way, the Wind Blows" (31).

7.40

Glee Singers.

"Down in Yon Summer Vale"

Chas. Wood (11)

"When Evening's Twilight"

H. Hughes (1)

7.54

Orchestra.

Waltzes, "A Night of Dreams"; "The

Street's Love Story"

8.5

D. M. Alpin

"The Self Banished"

Dr. Blaw (11)

"Europa Saluting the Colours"

Chas. Wood (1)

"The Vagabond"

Laughan Williams (1)

8.17

Orchestra.

F. A. (1st Tenor), "Oh, Evan"

That Forgotten

M. (11)

8.30

Glee Singers.

"Once I Loved a Maiden"

Rumery (2)

"Deep River"

Chas. Wood (1)

"Little Tommy"

Chas. Wood (1)

8.30

Orchestra.

Selection of Irish Reels, Jigs and Hornpipes.

F. A. (1st Tenor), "Whistling Lili"

Chas. Wood (1)

8.50

The First Kuree Received by T. (11)

9.1

"One Step, "If All the Girls"

Dervish" (8).

9.13

Selection of Irish Reels, Jigs and Hornpipes.

9.30

WEATHER FORECAST and NEWS.

S.B. from London.

Mr. HARRY B. HASLAM. S.B. from London.

Local News.

10.0

THE SAVOY BANDS. S.B. from London.

12.0

Close down.

Announcer: W. T. Gifford.

(Continued from column 2.)

SATURDAY, November 8th.

3.0-4.0.—The Station Piano-forte Trio.

5.0-6.0.—CHILDREN'S CORNER.

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

Prof. G. G. BARKLA, F.R.S., D.Sc.,
Nobel Laureate in Physics, on "Elec-
tricity." S.B. to Glasgow and Belfast (4th
of Series). Local News.

7.30-8.10.—Programme S.B. from London.

9.10-9.30.—Talk. S.B. from Glasgow.

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

Announcer: G. L. Marshall.

Edinburgh Programme.

Week Beginning Sunday, November 2nd.

SUNDAY, November 2nd.

3.0-5.30.—Programme S.B. from London.

8.30-9.0.—The Rev. P. H. MARTIN, B.D.,
St. Matthew's Parish Church: Religious
Address. Hymns by the Church Choir.

9.0-10.0.—Programme S.B. from Glasgow.

10.0-10.30.—Programme S.B. from London.

MONDAY, November 3rd.

3.0-4.0.—The Station Piano-forte Trio.

5.0-6.0.—CHILDREN'S CORNER.

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

Radio Association Talk. S.B. from London.
Mr. JAMES PATTERSON, R.S.A., P.R.S.W.,
R.W.S., on "Appreciation in Art" (1st
of Series). Local News.

7.30-11.0.—Programme S.B. from London.

TUESDAY, November 4th.

3.0-4.0.—The Station Piano-forte Trio.

5.0-6.0.—CHILDREN'S CORNER.

7.0-9.40.—Programme S.B. from London.

9.40.—Prof. R. S. RAIT. S.B. from Glasgow.
Local News.

10.0-10.30.—Programme S.B. from London.

WEDNESDAY, November 5th.

3.0-4.0.—The Station Piano-forte Trio.

5.0-6.0.—CHILDREN'S CORNER.

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

Mr. C. H. B. Quennell on "Everyday Life
in Early Times—Roman Britain." S.B.
from London. Local News.

Popular Programme.

Orchestra.

Under the Direction of

A. D. GLASWILL

CHRYSLER BARCLAY (Soprano).

HARRY CHILVER (Bass).

H. J. EWEN (Entertainer).

7.45.—March, "The Dandy March"

Overture, "William Tell"

8.3.—A. W. MATH. Lili, on the

Homage to the "31." S.B. to Belfast.

6.15.—Chryslers Barclay.

One Day, "The Old Woman"

"The Second Maiden"

8.30.—Orchestra.

Selection, "Melodious Memories"

H. J. Ewen

In Selections from his Repertoire.

9.0.—"The Song of the Cretan" Ethel

"The Blind Ploughman" Coningsby Clarke

"The Gentle Maiden" arr. Arthur Somervell

9.10.—Orchestra.

Franchese Solo. "The Storm Wind" Rachel

Entrance, "Simple Aven" Thelma

9.30.—WEATHER FORECAST and NEWS.

S.B. from London.

Mr. HARRY B. HASLAM. S.B. from London.

Local News.

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

12.0.—Close down.

In Selections from his Repertoire.

10.20.—Close down.

THURSDAY, November 6th.

3.0-4.0.—The Station Piano-forte Trio.

5.0-6.0.—CHILDREN'S CORNER.

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

FRIDAY, November 7th.

3.0-4.0.—The Station Piano-forte Trio.

5.0-6.0.—CHILDREN'S CORNER.

7.0-10.30.—The entire Programme S.B. from

London.

(Continued at the foot of column 1.)

Hull Programme.

Week Beginning Sunday, November 2nd.

SUNDAY, November 2nd.

3.0-5.30.—Programme S.B. from London.

8.30-10.30.—MONDAY, November 3rd, and WEDNESDAY,
November 5th.

3.0-3.30.—Robert A. Jackson and his Orches-

tra relayed from the Majestic Picture

4.0-4.30.—Houses

3.30-4.0.—WOMEN'S HALF HOUR.

5.15-6.15.—CHILDREN'S CORNER.

7.0-11.0.—Programme S.B. from London.

TUESDAY, November 4th, and THURSDAY,
November 6th.

3.0-3.30.—Claude Duval's Dance Orchestra.

4.0-4.30.—WOMEN'S HALF HOUR.

5.15-6.15.—CHILDREN'S CORNER.

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

FRIDAY, November 7th.

3.0-3.30.—Robert A. Jackson and his Orchestra,

relayed from the Majestic Picture

4.0-4.30.—Houses

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.

G. A. ATKINSON. S.B. from London.

Local News.

General Night.

VIOLET EVANS (Soprano).

GUNNELLE HAMILYN (Baritone).

CONSTANCE CLARK (Humorous and

Dramatic Recitator).

THE HULL GLEEMEN.

Part Songs.

"The Viking Song" (11)

"There is a Paradise on Earth"

Pearson (11)

"This Pleasant Month of May" Beale (11)

7.43.—Church Hymns.

"The Late Player" A. (11)

"To Morrow" Beale (11)

7.55.—Recitator.

Selected.

Part Songs.

"How Beautiful is Night" Keaton (25)

"What Ho! What, Shepherd, Ho!" Beale (11)

8.15.—Violet Evans.

"Waltz Song" (Tom Jones) German

"Starry Woods" V. Evans (11)

"Morning" Oley Speaks

8.23.—Orchestra.

"Onaway, Awake, Beloved" Couper

"O Mournful Morn" Quater (11)

8.35.—Part Songs.

"Martyrs of the Arena" De Rille (2)

"Down Among the Dead Men" arr. Grand de Dan (2)

8.45.—Recitator.

Selected.

Violet Evans.

"Sing, Sing, Blackbird" Montague Phillips

"Carmen" Lulu Wilson (25)

9.5.—"Song of the Volga Boatmen"

Champion-Koceman

"Drake Goes West" Sanderson (11)

9.15.—Sea Chanters.

"Billy Boy" arr.

"Bound for the Rio Grande" Sir Richard

"Johnny, Come Down to Hilo" Terry

"Reuben Ranzo" (2)

9.30.—WEATHER FORECAST and NEWS.

S.B. from London.

Prof. LEONARD HILL. S.B. from London.

Local News.

10.0-10.30.—Programme S.B. from London.

SATURDAY, November 8th.

3.0-3.30.—Claude Duval's Dance Orchestra.

4.0-4.30.—WOMEN'S HALF HOUR.

5.15-6.15.—CHILDREN'S CORNER.

7.0.—WEATHER FORECAST and NEWS.

S.B. from London.

GUY A. BROWN on "West African Sacred

Societies and Witch Doctors."

Local News.

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

Announcer: L. B. Page.

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Table Talker*

Leeds-Bradford Programme.

Week Beginning Sunday, November 2nd.

SUNDAY, November 2nd.

7.0-8.30.—Programme S.B. from London.
8.30-9.0.—All Souls' Day. Services relayed from Leeds Parish Church.

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

MONDAY, November 3rd.

7.45-8.15.—The Station Trio.
8.15-8.45.—CHILDREN'S CORNER.
7.0-11.0.—Programme S.B. from London.

TUESDAY, November 4th.

2.30-4.0.—Harold Lee and his Orchestra.
4.0-5.0.—VOYAGE TO THE MOON.
5.0-5.30.—CHILDREN'S CORNER.
6.0-6.30.—MR. CLIVE ROBERTSON, "A Chat on Gou"
7.0-10.30.—Programme S.B. from London.

WEDNESDAY, November 5th.

3.30-4.30.—Beauty Ghent and his Orchestra.
7.15-8.15.—CHILDREN'S CORNER.
7.0-11.0.—Programme S.B. from London.

THURSDAY, November 6th.

2.30-4.0.—Harold Lee and his Orchestra.
4.45-5.15.—VOYAGE TO THE MOON.
5.15-5.45.—CHILDREN'S CORNER.
7.0-11.0.—Programme S.B. from London.

FRIDAY, November 7th.

2.30-4.0.—Harold Lee and his Orchestra.
7.15-8.15.—CHILDREN'S CORNER.
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.

G. A. ATKINSON, S.B. from London.

An Evening With Mendelssohn.

Mrs. A. GRAHAM ELDREDGE

H. CLIFFORD RUBINS IN

JAMES CUNNINGHAM (Baritone).

THE FROSTON STRING QUARTET

7.30.—Mrs. A. Graham Eldridge on "Mendelssohn"

7.45.—Pianoforte Solo.

7.48.—Song Solo.

7.50.—"Songs Without Words," Nos. 18, 30 and 34.

7.57.—James Cunningham.

Solo, "St. Paul."

8.2.—Pianoforte Duo.

Nocturne from "A Midsummer Night's Dream."

Part of Overture to "Aida."

8.13.—Quartet.

Short Episodes—(a) Intermezzo from Quartet, Op. 13; (b) Scherzo from Quartet, Op. 44, No. 2.

8.21.—James Cunningham.

"On Wings of Song" Mendelssohn (1)

8.29.—Mrs. A. Graham Eldridge.

Funeral March.

8.43.—Quartet.

Quartet in E Flat, Op. 12, for Strings.

9.7.—Pianoforte Duo.

Overture to "Ruy Blas."

9.15.—James Cunningham.

"The Garland."

9.23.—Pianoforte Duo.

"Wedding March" ("A Midsummer Night's Dream.")

9.30.—WEATHER FORECAST and NEWS.

S.B. from London.

Prof. LEONARD HILL, S.B. from London.

10.0.—Pianoforte Duo.

Tune Form, "Finlandia" Sibelius

10.10.—James Cunningham.

"There Be None of Beauty's Daughters" } Mendelssohn (12)

"O God, Have Mercy"

10.20.—Pianoforte Duo.

March from "Tannhäuser" Wagner

10.30.—Close down.

SATURDAY, November 8th.

2.45-3.45.—The Station Trio.

5.15-5.45.—CHILDREN'S CORNER.

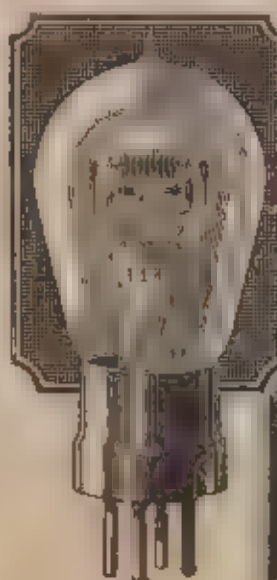
7.0.—WEATHER FORECAST and NEWS.

S.B. from London.

Mr. H. O. CLINCH on "The Smoke Evil."

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

Announcer: G. P. F.



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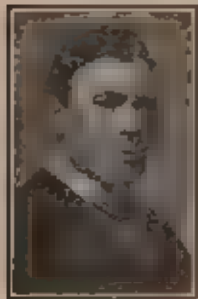
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| —Concentration | —Organizing Power |
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| —Will-Power | —Tact |
| —Decision | —Reliability |
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A Doctor says that he has steadily increased his practice.

A Typist reports that she has been appointed Assistant Secretary. "The compliment I often get: 'You are a walking encyclopedia,' is due to Pelmanism."

A Manager states that he has increased his salary by 100 per cent.

A Lady Student writes that she has passed an examination with great success, and attributes this honour to the study of the Pelman Course.

A Dental Surgeon says that since taking the Course his income has doubled itself.

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All Correspondence is Confidential.

Liverpool Programme.

Week Beginning Sunday, November 2nd.

SUNDAY, November 2nd

9.0-10.30.—Programme S.B. from London.
 9.30.—Religious Service.
 Hymn, "Lord of All Being Throned Ajar"
 (Hymnal No. 434).
 Anthem, "Son of Man" (Hymnal No. 434).
 Anthem by the Rev. N. HOLMES, E.
 Hymn, "Love, Lover of My Soul" (English
 Hymnal No. 414).
 10.0-10.30.—Programme S.B. from London.

MONDAY, November 3rd, and WEDNESDAY, November 5th.

3.30-4.30.—Gaiard and his Orchestra, relayed
 from the Scala Super Cinema.
 6.10-6.15.—CHILDREN'S CORNER.
 7.0-11.0.—Programme S.B. from London.

TUESDAY, November 4th.

11.30-12.30.—Sunday Concert.
 6.0-6.5.—CHILDREN'S CORNER.
 7.0.—WEATHER FORECAST and NEWS.
 S.B. from London.
 ARCHIBALD HADDON, S.B. from
 London.

7.0.—Local News.
 7.0.—Interval.

7.0.—Part of
 LIVERPOOL PHILHARMONIC
 SOCIETY'S SECOND CONCERT.
 Conducted by Sir Bernard Hall.
 Programme:
 1. Symphony No. 5, Beethoven.
 2. Concerto for Piano and Orchestra, Chopin.
 3. CR. N. 1st Tenor.
 JOHN PRUE (2nd Tenor).
 ALFRED NODD (1st Bass).
 4. R. Y. EVANS (2nd Bass).
 "Song of the Jolly Roger".

8.00.—LIVE VALVE CONCERT.
 S. CR. N. 1st Tenor.
 JOHN PRUE (2nd Tenor).
 ALFRED NODD (1st Bass).
 R. Y. EVANS (2nd Bass).
 "Song of the Jolly Roger".

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

10.0.—Mr. MORRY M. BLAKE on "The
 Modern Dance—H".

10.30.—Close down.

THURSDAY, November 6th.

3.30-4.30.—The Station Fanfare Trio.
 6.10-6.15.—CHILDREN'S CORNER.
 7.0-10.30.—Programme S.B. from London.

FRIDAY, November 7th.

3.30-4.30.—Gaiard and his Orchestra.
 6.10-6.15.—CHILDREN'S CORNER.
 7.0-10.30.—Programme S.B. from London.

SATURDAY, November 8th.

3.30-4.30.—Gaiard and his Orchestra.
 6.10-6.15.—CHILDREN'S CORNER.
 7.0-12.0.—Programme S.B. from London.
 Announcer: H. Cecil Pearson.

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 I.B.C., containing
 programme suggestions or criticisms, should be
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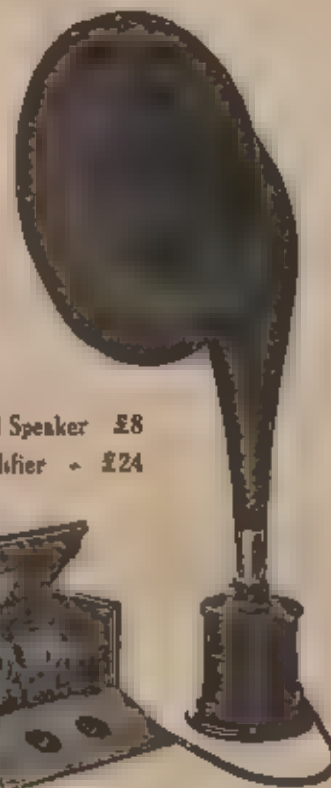
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**Celebrated
LOUD SPEAKERS**

Nottingham Programme. Week Beginning Sunday, November 2nd.

SUNDAY, November 2nd.

9.0-9.30. } Programmes S.B. from London.
8.30-10.30 }

MONDAY, November 3rd, and THURSDAY,
November 6th.

9.30-10.30.—The Scala Picture Theatre Orchestra,
Musical Director, Andrew James.
5.0-6.0.—CHILDREN'S CORNER.
7.0 onwards.—Programmes S.B. from London.

TUESDAY, November 4th.

7.0-8.0.—CHILDREN'S CORNER.
8.0-10.30.—Programmes S.B. from London.

WEDNESDAY, November 5th.

1.30-2.30.—Gramophone Records of the Week.
7.0-8.0.—CHILDREN'S CORNER.
8.0-10.30.—Programmes S.B. from London.

FRIDAY, November 7th.

5.0-6.0.—CHILDREN'S CORNER.
7.0.—WEATHER FORECAST and NEWS.
S.B. from London.
G. A. ATKINSON & Co. from London,
Local News.

THE NOTTINGHAM CITY POLICE BAND

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Conductor: Inspector JOHN GEORGE
HEWITT

(Late Bandmaster, Duke of Cornwall's
Light Infantry)

MARK MELLORS (Harpist)
E. H. ADAMS (Bass)

7.10. The Band

"Machin' Gun" (March) .. Marshall

7.35. "The Arrow and the Song" .. Wolfe

"The Tidy Tinker" .. Newton

"Gypsy, Lad" .. Varjeton (1)

7.45. The Band

Ballet Music from "Les Eumenes" .. Massenet

Serenade from "Les Millions d'Arlequin" .. Drigo

In a Church Tower (March) .. Krieglberg

8.5. The Band

"The Late Flower" .. F. Allerton

"Myself When Young" (In a Garden) .. Lehmann

8.25. The Band

Overture, "Joan of Arc" .. Verdi

In a Persian Market .. Krieglberg

"Les Echos des Bois" .. E. Demare

8.55. The Band

"King Charles" .. M. F. White (1)

"The Farmer's Bride" .. Kennedy Russell

"Song of the Flea" .. Monstorgsky

9.5. The Band

"Maid in the Black Forest" .. Eilenberg

Musette d'Amour .. F. H. Conzen (11)

9.30. The Band

"Thou Art Reason, My Beloved" .. Coleridge Taylor (1)

"She Alone Charmeth My Sadness" .. G. H. Jones

"Ombra mai fu" .. G. H. Jones

9.50. WEATHER FORECAST and NEWS.

S.B. from London.

Prof. EDWARD HILL. S.B. from London.

Local News.

10.0. The Band

Excerpts from the Works of Grieg .. D. Godfrey, Junr.

10.20. The Band

In Love .. Hermann Zohr

The Song of the Volga Boatman .. Koenemann

10.30. Close down.

SATURDAY, November 8th.

3.15-4.15. The Scala Picture Theatre Or-
chestra. Musical Director, Andrew James.

5.0-6.0.—CHILDREN'S CORNER

6.40-8.55.—Talk by Station Director

7.0-12.0.—Programmes S.B. from London.

Announcers: Edward Livinge.



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THE CLIMAX JUNIOR

The DISTINCTIVE CRYSTAL SET
with the SURE-SET DETECTOR



A WONDERFUL LITTLE SET

in a beautiful polished mahogany cabinet
with nearly silver-mounted fittings.

Its tuning system has a wave-length range
that covers all B.B.C. stations, including the
Chelmsford High-Power Station.

Safe position on switch puts the aerial to
earth when set is not in use.
Variometer Tuning.

You will want it when you see it.

THE UNIQUE DE-
TECTOR OF THE
CLIMAX JUNIOR
PLACES THIS SET
HIGH ABOVE THE
USUAL STANDARD
OF CRYSTAL RE-
CEIVERS.



operates on an automatic principle by which
the rotation of a knob brings into operation
the whole series of sensitive points on the
crystal. In addition, the automatic move-
ment has superimposed upon it a variable
Control of the Cat Whisker Contact Pres-
sure, thus enabling the absolute maximum
efficiency to be obtained in all circumstances.

Setting the crystal is a quick, simple and
easy operation, which ensures the whole of
the programme being received without
annoying interruptions so frequently ex-
perienced with ordinary crystal detectors.

What everybody said

"The nicest little set at the show."

Ask anybody who saw it at the Albert Hall

You will want it when you see it.

The Climax Junior - - price 21/-
Carriage 1/-

The lowest possible price for the highest
possible grade of crystal set.

CLIMAX PATENTS, Ltd.,
182, Church Street, Kensington.
Phone: Park 3023.

What
Mr William
Le Queux thinks
of the



B.T.H.

B4 Valve

6 VOLTS—0.25 AMPS.

MR. WILLIAM LE QUEUX, the famous novelist, is equally famous in the world of radio technics. He was one of the pioneers of wireless, and has been experimenting for 20 years. His transmitting station 2.A.Z. at Guildford was the first station in the world to broadcast regularly every night.

Mr. William Le Queux, as a result of his Jungfrau experiments, has proved the superiority of the B4 Valve—the first of its kind, and the best

The B.T.H. Type B4 Valve was the first valve taking only 0.25 amperes at 6 volts sold in this country. It is acknowledged as the supreme valve for use as a low frequency power amplifier.

Obtainable from all Electricians & Radio Dealers



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I am very glad to hear that you are
interested in the B4 Valve. It is a
very good valve for the purpose of
amplification. I have used it for
many years and it has given me
very good results. I am sure you
will be satisfied with it. I am
very glad to hear that you are
interested in the B4 Valve. It is a
very good valve for the purpose of
amplification. I have used it for
many years and it has given me
very good results. I am sure you
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The British Thomson-Houston Co. Ltd.

Works: Coventry.

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GENERAL ELECTION RESULTS

WILL NOT AFFECT THE AMAZING VALUE OF
THE "BIJOUPHONE"
 VARIOMETER TUNED
CRYSTAL SET

BE CERTAIN OF GOOD RECEPTION BY ASSURING YOURSELF THE NAME "WATES"—OUR REGD. TRADE MARK—IS MOULDED ON EBONITE TOP. THERE ARE MANY INFERIOR INFRINGEMENTS FOR WHICH WE CANNOT BE RESPONSIBLE.

OUTSTANDING FEATURES.

VARIOMETER TUNING.
 MOULDED EBONITE TOP & BASE.
 ENCLOSED DETECTOR WITH BEST QUALITY CRYSTAL & POINT.
 NICKEL-PLATED METAL PARTS.

Model 1.

TUNING: 250/700 METRES.
 RANGE: 30-50 MILES.

7/6
 CAN YOU BEAT IT?

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Specially wound for 5XX (Chelmsford) and all B.B.C. Stations.

TUNING: 250/1500 metres. **10/-**

RANGE: 5XX 50-100 miles.
 Other B.B.C. Stations 30/50 miles.

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Xcellent quality, and reliable.

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Enquire from your retailer for 'Excelda'

Leave nothing to chance, Buy 'Excelda'

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Made in sizes for Ladies and Gentlemen.
 Hemstitched All-White a special production
 Also a great variety of Colored borders.

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A MARVELLOUS ONE VALVE SET.

Range of 100 miles under reasonable conditions for Telephony. With this Set you have a guaranteed average range of 100 MILES for Telephony but it will receive at much greater distances.

72/6
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This is a Single Valve Wireless Cabinet for 72/6. It is supplied complete in every detail, including a new type Edwards' 10 Valve, costing 30/-, Lonsdale Featherweight phones costing 24/-, High Tension, Low Tension in fact everything complete ready to connect to your aerial and receive all British Broadcasting Stations immediately, for £28-17-6, plus 1/6 Marconi Royalty for the complete set.

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Leather or Pegamoid cases can be supplied, rendering the Set easily portable.

NEW TYPE CRYSTAL SET.

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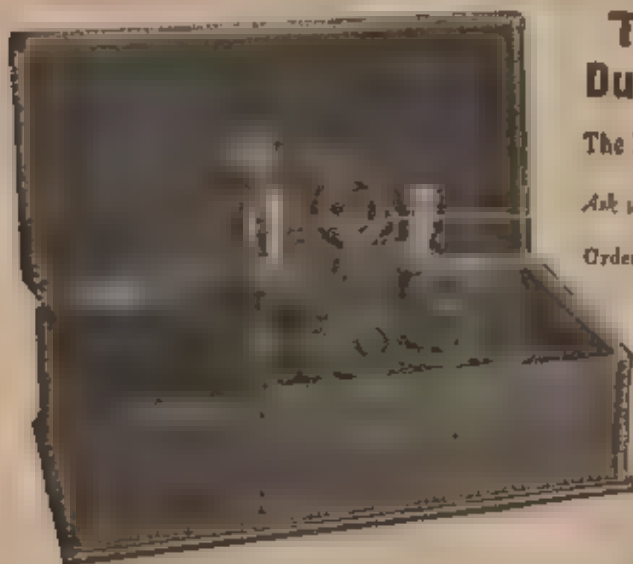
This new type Crystal Set embodies a new type Patent Variometer which allows of the fine tuning essential to loud and clear results. This Set is now supplied with coil to receive the new high-power B.B.C. Station which renders the Set available for reception, and at a distance of about 100 miles. Fitted with plugs for aerial and earth connections.

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The "C.A.C." Duo-Valve Receiver.

The Loud Speaker Set at the modest price of Five Pounds.

Ask your local dealer or call at any of our Branches for demonstration.

Order **NOW** to ensure quick delivery.

The C.A.C. DUO-VALVE RECEIVER has been designed in order to place upon the market a really efficient two-valve Receiver at a price within the reach of all.

Past attempts by other makers to manufacture a similar instrument at anything like so reasonable a price have not met with great success; either the appearance of the set has been sacrificed by substituting a moulded case in an endeavour to cut down the cost of

cabinet work, or economy has been effected by using cheap components of inferior quality.

This is not the case with the C.A.C. Duo-Valve Receiver. A glance at the illustration above will show that the general appearance of the set leaves nothing to be desired, whilst the quality of the components used in its construction is second to none.

The wave-length range of this instrument is unlimited, and providing a really efficient aerial is used under normal conditions, quite good loud speaker results may be expected within about 15 miles of the local broadcasting station. In the case of high-power stations, however, reception is increased, and from 75—100 miles is normal. Tuning is carried out by means of a variable condenser, and the reaction coil is adjustable by means of a control knob giving Vernier control.

Prices, in enclosed Fumed Oak Jacobean Cabinet, without coils, valves, batteries, etc. (to which must be added Merton Roadster 5s.) **£5:0:0**

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It is true that some men succeed by Luck.

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But don't let that deceive you.

For every one hundred men who succeed by Luck or Influence, there are ten thousand who succeed because they deserve to!

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Ability counts.

Employers are continually looking for good men.

Nothing in the world can keep you down if you make up your mind to go up.

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PRICES OF PANELS	Prices of Complete Sets.
Two Valve ... £19 8 0	Two Valve ... £17 10 0
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Four Valve ... £20 8 0	Four Valve ... £27 5 0

This handsome Pedestal Cabinet fitted with an A.J.S. Four-Valve Receiver, High and Low Tension Batteries, with A.J.S. Loud Speaker, the horn of which matches the wood, is supplied in Mahogany, or in Light or Dark Oak, complete with all accessories ready for use at

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See our Stand, E.4, Palace of Engineering, at the British Empire Exhibition.

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It filters the sound.

Sparta

As surely as a liquid is filtered from impurities in the laboratory, so does the Sparta filter sound, removing every trace of perfect purity and refinement, leaving the best of you. B. there is an ingenious arrangement of blocking substances, which by smoothing away a trace of harshness results in a remarkably natural tone.

TYPE 'A' with 1000 ohm 4000 ohm

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TYPE H.B. 2,000 Ohm.

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FULLER'S UNITED ELECTRIC WORKS, Ltd.,
Chadwell Heath, Essex.
Telephone—Shed 1300 16 Lines.

Stoke-on-Trent Programme

Week Beginning Sunday, November 2nd.

SUNDAY, November 2nd.

3.0-3.30. } Programmes S.B. from London.
8.00-8.15. }

MONDAY, November 3rd, to THURSDAY,
November 6th, and SATURDAY, November 8th.
3.30-4.30.—The Majestic Cinema Orchestra.
Musical Director, Thomas Herbert.
6.00-6.15.—The N.S.C. News.
7.00-7.15.—Programmes S.B. from London.

FRIDAY, November 7th

3.30-4.30.—The N.S.C. Orchestra.
Musical Director, Thomas Herbert.
6.00-6.15.—The N.S.C. News.
7.00-7.15.—FORECAST and NEWS.
S.B. from London.
G. A. ATKINSON. S.B. from London.
Local News

Military Band Evening.

MISSIE HOLMES (Soprano)
THE BAND OF THE 5TH BATT'THE NO. 1
STAFFORDSHIRE REGIMENT
(By permission of Officer Commanding and
Officers.)

MISS GLOVER

7.00.—The Band.
"The Mac Major"..... Alford
"The Soldier's Goal" Suppe
7.15.—The Band.
"The Still, Blackbird".....

Wilfred Sanderson (1)
"Beloved, it is Morn"..... Florence Agnew
8.00.—The Band.
Patricia, "An Eastern Romance" Barnes
Selection, "The Lady of the Lake".....

Baritone Songs

8.20.—"Sea Fever"..... John Ireland
"The Late Player"..... Alford
8.30.—The Band.
Three Dances, "Nell Gwyn"..... German
Entr'acte, "Moon Madrigal"..... Wilby
8.50.—Soprano and Baritone Duets.
"At Love's Beginning".....

Isa Lehmann (1)
"Is a Garden of Roses"..... Sanderson (1)

9.00.—The Band.
"Irish Whispers"..... Ann H.
Selection, "The Cabaret Girl"..... Kern
9.20.—The Band.

"Love's a Merchant"..... Molly Carey
"A Little House"..... Florence Agnew
"Allah be with Us"..... Woodford Fynden (1)

9.30.—WEATHER FORECAST and NEWS.
S.B. from London.
Prof. LEONARD HILL, S.B. from London.
Local News.

Baritone Songs

10.00.—"The Splendour of the Moon".....
Elizabeth Needham (8)
"The Floral Dance"..... Katie Moss
10.00.—The Band.
Selection, "The Maid of the Mountains".....
Fraser Simeon
Patrol "The Wee Macgregor"..... Amers
10.30.—Close down.

Announcer: J. C. Clarke.

"My Life-Story," By WILL THORNE, M.P.

These revelations of Sixty Years
of Toil appear exclusively in

"TIT-BITS"

(Every Monday — 2d.)

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Facility Series
No. 6.

Expert knowledge and Superb machinery

THE high reputation enjoyed by all Brown Wireless products: not only in this country but throughout Europe and the Colonies—was not built up in a day. It is the result of an increasing effort to produce apparatus as nearly perfect and as mechanically perfect as possible.

Take for example the Brown Loud Speaker. Few can realize the immense number of processes necessary before the instrument reaches its final tests. Even when the Loud Speaker arrives at the Testing Department it is by no means certain that its tonal purity and volume will reach the high standard of efficiency which has been an unvarying aim.

No Loud Speaker is ever released for issue until S. G. Brown Ltd. are satisfied that it will uphold their reputation.

Prices:

Type H.1	Type H.2	Type Q
170 ohms £5 5 0	170 ohms £2 5 0	£15 15 0
2000 ohms £5 8 0	2000 ohms £2 8 0	in all
4000 ohms £5 10 0	4000 ohms £2 10 0	resistances.

as builders of the finest Loud Speakers on the market.

Naturally to produce such instruments requires sensitive and accurate machinery and workers possessing experience above the ordinary. Although there is such a tremendous demand for Brown Loud Speakers because the wireless public has realized that its exclusive tones need principle must give more faithful reproduction, yet the policy of S. G. Brown, Ltd., is such that every instrument receives individual care from commencement to finish.

It is worth remembering that the very first Loud Speaker for Wireless use was manufactured by S. G. Brown Ltd.—even the words "Loud Speaker" were evolved by them—obviously such greater experience must have its effect upon ultimate results.

Illustration shows
characteristic shape for
the H.1 type Loud Speaker
being mentioned.

From all Dealers or
can be demonstrated
at the following
Showrooms:

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

S. G. BROWN, LTD. — Victoria Road, N. Acton, London, W.3.

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MONTHLY

(Published 1st of each month)

MODERN WIRELESS

"It's a Radio Press Periodical."



"I get these stations regularly"

So will you if you buy a copy of the November
"MODERN WIRELESS"

Edited by John Scott-Taggart, F.I.M.P., A.M.I.E.E.

CONTENTS.

- MORE RESISTOFLEX CIRCUITS.**
By John Scott-Taggart, F.I.M.P., A.M.I.E.E.
- THE TRANSATLANTIC 4-VALVE RECEIVER.**
By Percy W. Harris.
- THE NEW T.A.T. SYSTEM OF MULTI-STAGE H.F. AMPLIFICATION.**
By John Scott-Taggart, F.I.M.P., A.M.I.E.E.
- A LONG RANGE 2-VALVE NEUTRODYNE.**
- A CRYSTAL SET FOR LONG AND SHORT WAVELENGTHS.**
- Etc., etc., etc.

FOR long range work, on getting the better class built, he has now a radio trans-
mission, he says, that he says Percy W. Harris, in the November issue, "Modern
Wireless," he says, the long range wireless receiver, which is a long range
This set will also be a long range receiver and will work a long range receiver
expansion of a long range receiver and has also given long-range results in a long range
And then, long-range receiver.

An article of the greatest interest to the more experienced experimenter is the one by
John Scott-Taggart, in his new book, "The Long Range Receiver," which is a long range
but a long range receiver, which is a long range receiver, which is a long range receiver
This is the first of the long range receiver, which is a long range receiver, which is a long range receiver.

In fact, long-range work is a fascinating task, and also a "set further." John
Scott-Taggart, in his new book, "The Long Range Receiver," which is a long range
on a long range receiver, which is a long range receiver, which is a long range receiver.

More than 100,000 copies of the "Long Range Receiver" have been sold, and it is a long range
and interesting receiver, which is a long range receiver, which is a long range receiver.

There is also a crystal set and an "H.F." single-valve receiver which will receive S.W.
heavily throughout the country. It will also receive three or four H.F. stations on
the phone and work a long-range receiver up to about 5 miles. A set thoroughly to be recom-
mended.

There are also the great articles dealing with the operation of sets, fault-finding, theory, the
business of wireless, readers' experience, etc., etc.

A SPLENDID SHILLINGSWORTH.

Out to-day

The November "MODERN WIRELESS" is a wonderful budget of good articles and
has been greatly enlarged. There are now

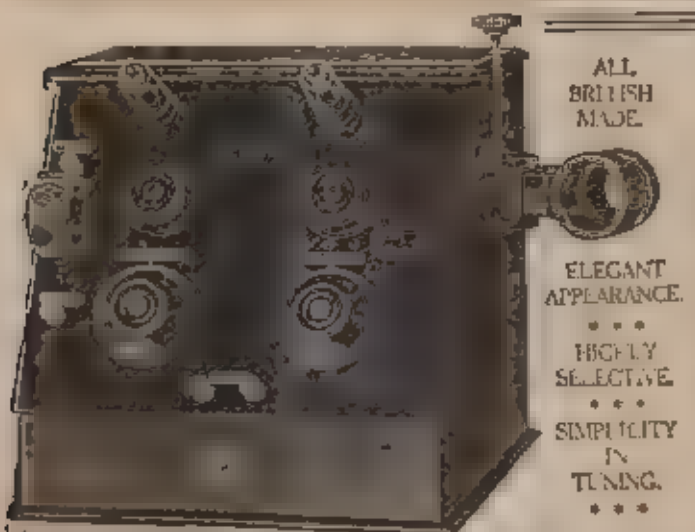
135 PAGES!

"Modern Wireless" is on sale everywhere. In case of any difficulty, place a
definite order with your newspaper. Published by Radio Press, Ltd., the largest
wireless publisher in the world, BUSH HOUSE, STRAND, LONDON, W.C.2.

Readers Ad. 1, 2.



The Editor of "MODERN WIRELESS" is the only one who can give you the best advice on the subject of wireless.



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MADE

ELEGANT
APPEARANCE.

HIGHLY
SELECTIVE

SIMPLICITY
IN
TUNING.

The "GOLSTONE" (Regd.) WIRELESS RECEIVING SETS. BRITISH MADE.

Designed for receiving on any wave length. The Two-Valve clearly seen in British Broadcasting and Continental Stations, and for Loud Speaker connection. The Two-Valve set is now the most powerful and satisfactory in all parts of the Kingdom. It is a new design with removable work. Features: One Valve with 1000 Ohm Filament. Removable Tuning Knob for tuning Aerial and Ground. Removable Tuning Knob for tuning the High Frequency. The High Frequency and Low Frequency can be tuned in the Cabinet and the two valves are in the Aerial and Ground. The set is in a metal cabinet and is a British Broadcasting Station. One in the set is in the set. The set is in the set and any high-wave stations are in the set and can be promptly supplied.

120VOLT CABINET £27 10 0 FIVE VALVE CABINET £18 18 0

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FOR WIRELESS ENTHUSIASTS!

All wireless enthusiasts will be delighted to hear that

THE VETERANS OF VARIETY

have been recorded ON PARLOPHONE RECORDS. These records have been made in response to innumerable requests received from Listeners-in all over the country who first heard the original Veterans broadcasted from 2LO. The VETERANS can now be heard at wish in every home. Ask your dealer to play you these delightful records. 10 inch double sided 2/6.

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E 522 VETERANS OF VARIETY. Part 2. "What is the name of the man who is called 'The Vicar'?"
E 523 VETERANS OF VARIETY. Part 3. "What is the name of the man who is called 'The Vicar'?"
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Perfect Recording, Reproduction and Tone. SCRATCHLESS SURFACE.

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All 12 inch double sided records including Celebrity Series—4/6

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Two sets of crystals, each with the "Palladium" Catwhisker, 2/-
From your dealer, or send to
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NEW! The "Palladium" Catwhisker,
the most sensitive and reliable
crystal yet.



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THE BEST "POPULAR PRICE" CIGARETTE

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EXTRA SIZE CIGARETTES

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Ethophone-Duplex

*A two-valve set which
will work a loud speaker*
FIVE GUINEAS!

THE Ethophone-Duplex is wonderful value. The fact that such an efficient two-valve set sells at such a low price has created enormous interest among the listening public all over the country.

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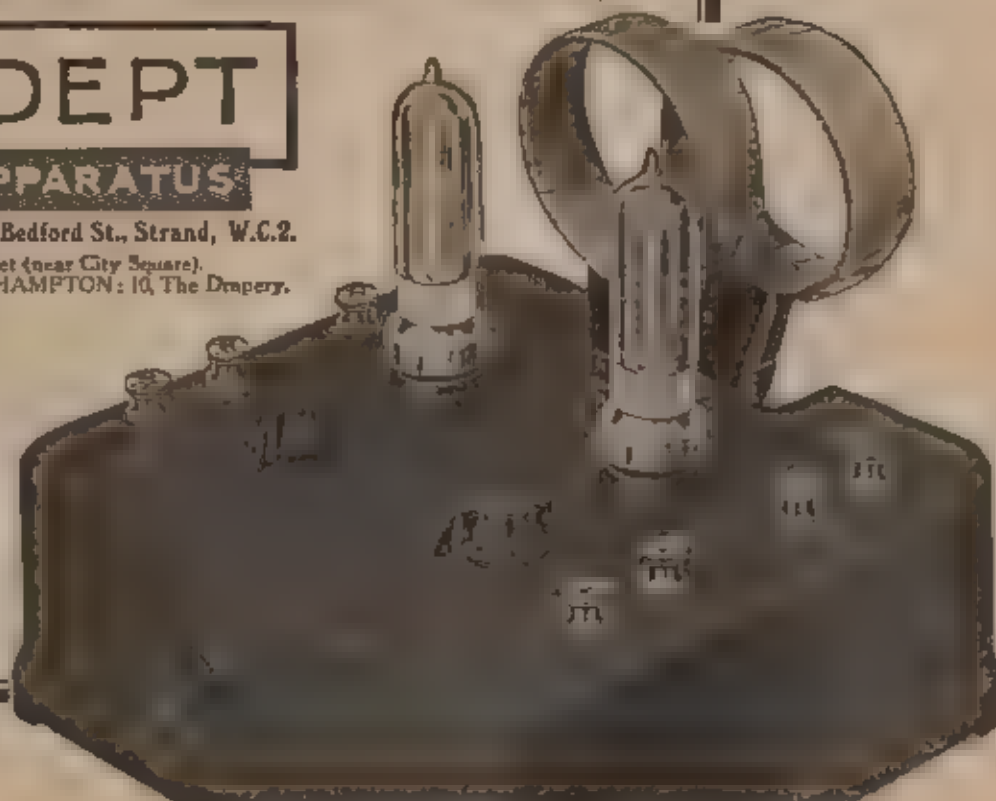
BURNDEPT LTD., Aldine House, Bedford St., Strand, W.C.2.

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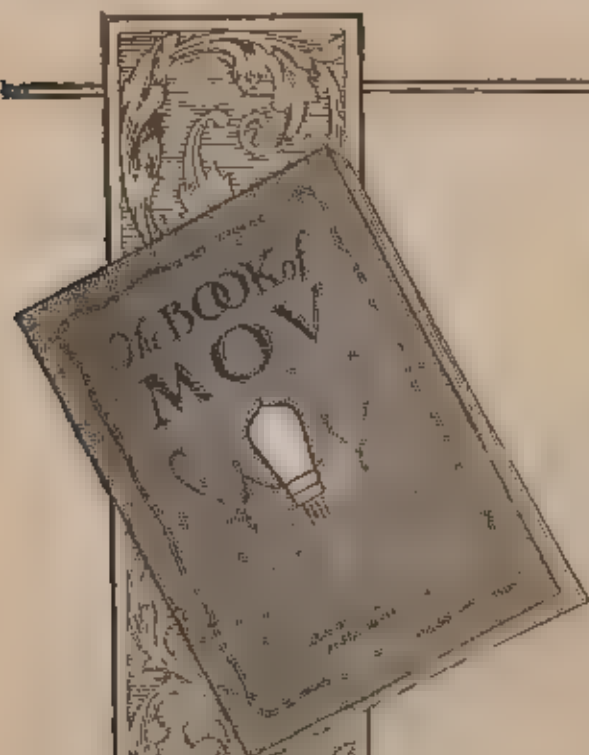
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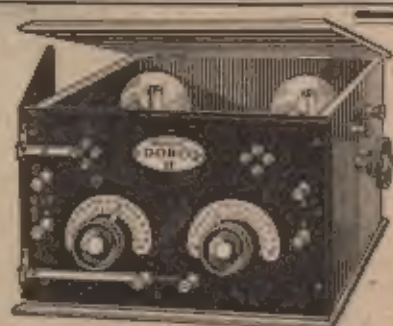
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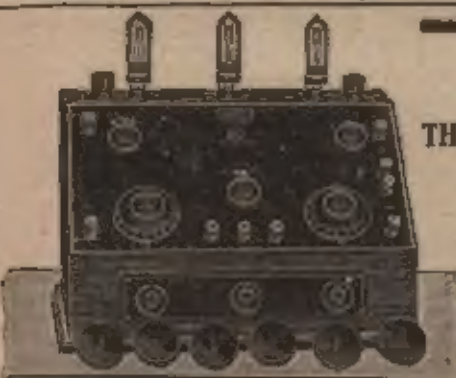
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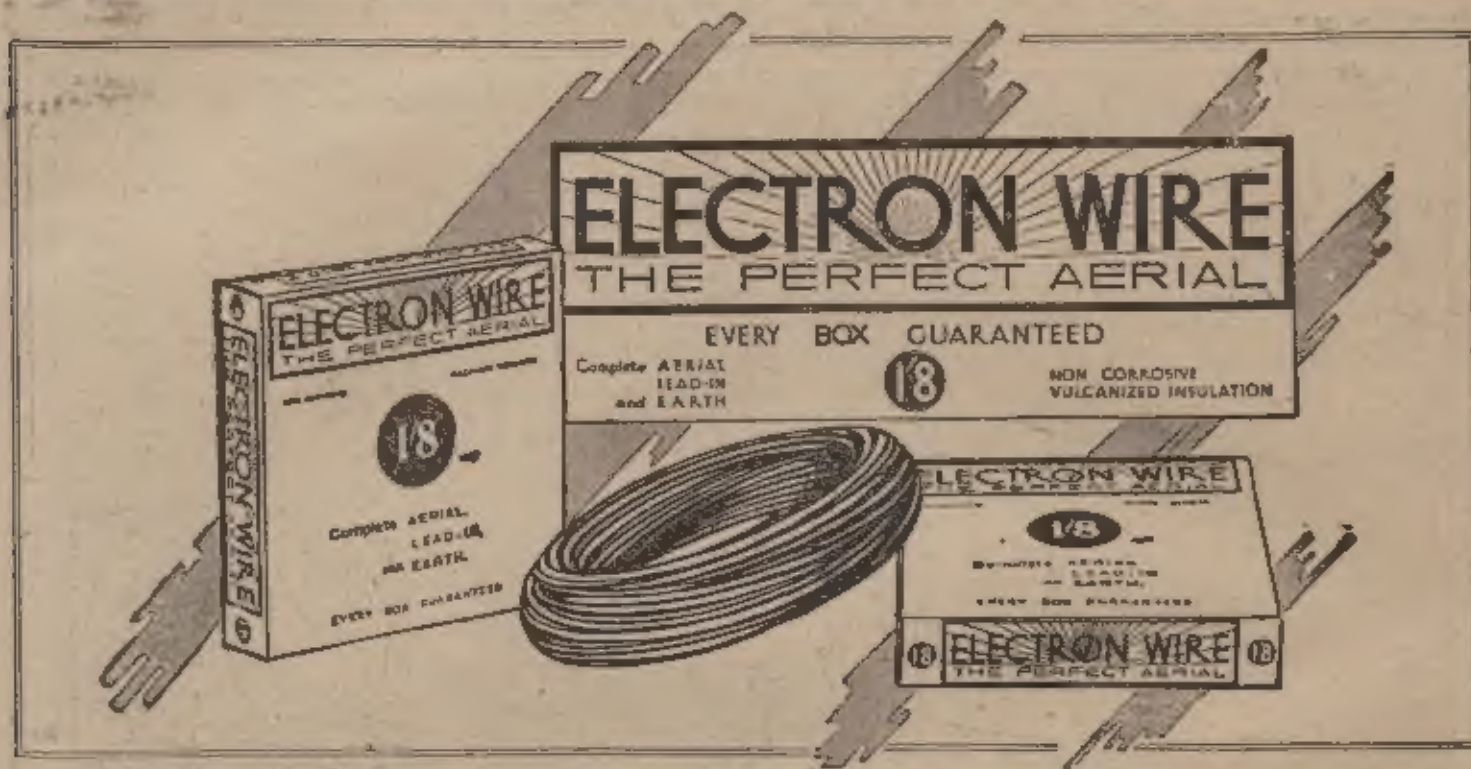
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