

WIRELESS WEEKLY

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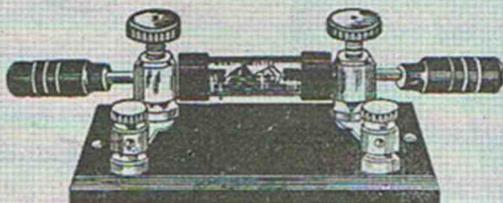
VOL. 7. No. 6.

FRIDAY, DEC. 4, 1925.



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ADD. TRANSFER MARKING.
FEATURE: P. 24

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Fil. Volts, 5
Fil. Amps., .25
Plate Voltage, 15 to 140

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TERMS



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OR
TERMS

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	Unmounted.	Mounted		Unmounted.	Mounted
20 Turns	1/5	2/10	100	2/1	3/8
25 "	1/5	2/10	150	2/3	4/-
35 "	1/6	2/11	200	2/6	4/4
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I will answer any enquiries immediately.

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I will buy your components for you at ruling city prices and despatch them to you within 24 hours of receipt of order. I will advise you as to the quality of the goods. This service is free.

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Deposit 1 7 6
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Deposit 2 10 0
Weekly 0 8 8

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Dulcivox Loud Speaker, £2/15/-
Standard 201A Sockets, 2/- each
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Square Law Condensers, Vernier,
.0005, 11/6

Square Law Condensers, Plain,
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Square Law Condensers, Plain,
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Bakelite Terminal Board, com-
plete with engraved terminals,
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Modern Transformers, 19/-

HALF SPECIALS PRICE.

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Adjustable Switch Arms, 9d. each

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Egg Insulators, 6d. doz.

100 feet Aerial Wire, 2/-

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Ormond Condensers & Rheostats.
.001 Plain Low Loss, 14/-

.001 Vernier Low Loss, 17/-

.0005 Vernier, 12/-

.0005 Vernier Ebonite Ends, 15/-

.001 Vernier Ebonite Ends, 17/-

30 ohm Rheo-Vernier

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Open till 9.30 Friday Night



WIRELESS WEEKLY

Phones: Redfern 964 and 930.

Official Organ of the New South Wales Division of the Wireless Institute of Australia, with which are incorporated the Affiliated Radio Societies and the Australian Radio Relay League.

Editor: A. W. WATT

The Editor will be glad to consider Technical and Topical Articles of interest to Australian Experimenters. All Manuscripts and Illustrations are sent at the author's risk, and although the greatest care will be taken to return unsuitable matter (if accompanied by stamps), the Editor cannot accept responsibility for its safe return.

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Advertising.—Advertising Rates may be had on application to the Advertising Manager. Copy must be in the hands of the Editor by the Friday preceding each issue. If copy is not received in time, the previous week's advertisement will be repeated.

"Questions and Answers." All requests calling for technical advice or drawings MUST be accompanied by postal note or stamps to the value of 1/-. A maximum of four questions is allowed.

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All accounts should be payable to Publicity Press Ltd., 12/16 Regent Street, Sydney.

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A BROADCAST LISTENERS' LEAGUE.

The suggestion outlined in the editorial columns of "Wireless Weekly" last week has already called forth results in the way of letters from readers supporting the scheme.

What would be the object of a Broadcast Listeners' League?

Briefly, its main purpose would be to ensure that the listening-in public has active representation in matters affecting its interests where broadcasting is concerned. It stands to reason that an organisation representing the thirty or forty thousand listeners-in of New South Wales would carry a great deal of weight.

There is more in the League idea than this, however, and that is the opportunity afforded broadcast listeners of interchanging views, of discussing problems of common interest, and of attending lectures and talks upon technical and other subjects relative to the hobby they have taken up. In other words, the League Headquarters would represent common ground upon which one could meet the other fellow and chew over those thousand and one things about broadcasting that one somehow never seems to get an opportunity to get the opinion of someone else about.

Clubs are the media by which amateurs and

those interested in the technical side of wireless may get together for the purpose of comparing notes and of keeping au fait with the latest developments in amateur wireless telegraphy and telephony. Although comparatively young and of fairly small memberships, due, of course, to the limited numbers of amateurs, the activities of these clubs is widespread; they have been able to accomplish a great deal of benefit to themselves and to amateur wireless. Aside from the fact that they, together with the Wireless Institute, have been responsible for elevating the status of the amateur to the point where it is at the present day in Australia, they have more than achieved the main purpose for which they were originally founded—that was to provide meeting places where kindred souls could meet on the same footing. In this they provide a very strong argument why a Broadcast Listeners' League is a necessity. It requires very little thought to realise that the operations of such an organisation could only result in the common good of the listeners-in.

We are more than willing to start the ball rolling, provided support is forthcoming. You can give that support primarily by writing us to-day signifying that you are favourably disposed towards a Broadcast Listeners' League.

A. W. WATT.

And now —

Brandes

The Name to Know in Radio

Introduce the Table-Talker

Original in the real beauty of its performance, original in its ingenious construction, original in its remarkable price. The horn is so contrived that every note registered is encompassed and emitted with absolute purity — there is no discordant echo from its walls. The full-toned accuracy of reproduction is consistent with the mellow note which is the chief characteristic of the famous Brandes Superior "Matched Tone" Radio Headphones.

Retail Price . **63/-**

*Tune with Brandes
"Matched Tone" Radio Headphones
Then listen with
Brandes "Table Talker"*

Wholesale
Only

INTERNATIONAL RADIO CO. LTD.
200 Castlereagh St., Sydney. 91-93 Courtenay Place, Wellington, N.Z.

HEADQUARTERS
Royal Society's House
5 Elizabeth St
SYDNEY, N.S.W.

Wireless Institute of Australia

N.S.W. Div. Inc.

Incorporating the Affiliated Societies and The Australian Radio Relay League

W.L. Carter, Hon. Sec.
Box 3120 G.P.O. Sydney
Phone B2235
A.H. Perrett, Publicity Officer

Interstate Visitors.

The Institute has been very pleased to welcome three members of the Fourth District at Institute Headquarters this week.

Mr. L. Waters, 4AC, who was present at the Monthly General Meeting of the Institute, was the first one to arrive.

Mr. T. H. Dutton, Honorary Secretary of the Queensland Division, was the next one to be welcomed at Headquarters, and we are sorry that his stay was indeed a brief one.

He was followed by Mr. C. J. Grant, publicity officer of the Woolloowin Radio Club.

The Council wish to emphasise that they are always pleased to have Interstate visitors at Headquarters, and this also applies to country members as well.

A-2WI.

Station A-2WI is now on the air and has commenced operations covering some very interesting work. Traffic has been transmitted on Sunday and Wednesday evenings, commencing at 10, and it

has been most interesting to follow the various messages as they have been transmitted from place to place. Direct communication has been established with nearly all States, and in those States that have not received directed messages have been relayed. The failure to establish direct communication has not been due to any lack of power at 2WI, but merely due to the failure to raise any station at the other end. All stations, particularly official stations, should make a point of listening in on 90 metres at 10 p.m. on Sunday and Wednesday.

Traffic for 2WI should be sent on these nights, and any other times can be arranged by appointment.

Static Tests.

There are still some forms to come in with regard to the static tests, and until all the returns are made it will be impossible to get any of the results. Those who have not sent in their reports to date, should do so at the earliest possible moment.

Round the Clubs

The asterisk denotes clubs affiliated with the Wireless Institute of Australia (N.S.W. Division).

CONCORD AMATEUR RADIO CLUB (A-2GD)*

On Thursday night last, the 26th November, the above Club met at the club rooms, "Euripides," Wallace Street, Concord, for the purpose of holding their usual weekly meeting. Attendance was good and the meeting was opened by the President, Mr. J. V. Stephenson, at 8.5 p.m.

At this meeting we were very pleased to welcome fourteen visitors, from the Croydon and Leichhardt Radio Clubs.

The main item of the evening was a lecture on "Transformer Construction," ably given by Mr. W. H. Barker. The balance of the evening was spent in discussing the proposed regulations of the A.R.R.L.

Mr. Nordstrom, Leichhardt Club, gave us a whole lot of information on the subject, and we are anxiously awaiting further details. The meeting now adjourned for refreshments, after which transmission tests were carried out.

A-2GD transmits on Tuesday and Thursday nights, after 10 p.m., and on Sunday mornings. Anyone hearing these transmissions please notify the Hon. Secretary, Mr. W. H. Barker, C/o the Club rooms.

THE LEICHHARDT AND DISTRICT RADIO SOCIETY.*

(Licensed Experimental Transmitting Station 2LH.)

Members of the Leichhardt and District Radio Society held their 152nd general meeting at the club-room, 176 Johnston Street, Annandale, on Tuesday, November 24th, 1925.

There was an excellent attendance of members, and Mr. Drew, Radio Operator of the S.S. Dilkera,

was present as a visitor, together with Mrs. Drew, both of whom found the proceedings most interesting.

The main business of the evening was to have been the delivery of the 12th lecture of syllabus No. 4, under the title "Storage Batteries," but as Mr. A. G. McFarlane, of the Exide Battery Service Station was, through unforeseen circumstances, prevented from being present for the purpose of delivering the lecture in question, Mr. S. Williams, the Society's worthy Hon. Treasurer, volunteered to fill the breach by delivering an impromptu lecture on the "Howell-Reinartz" Circuit. Mr. Williams' offer was eagerly accepted, and although he came to the meeting totally unprepared to deliver a lecture of any kind, it is doubtful whether he could have done better had he made elaborate preparations to deal with the subject handled by him. The "Reinartz" circuit is to Mr. Williams what the "5BG" circuit is to Mr. Loomes, who dealt so efficiently with the latter at the previous meeting, and as Mr. Williams has concentrated practically the whole of his experimental efforts upon obtaining the best results with the "Reinartz" circuit since that particular circuit first became popular, he is in a position to speak with some degree of authority upon it. During the course of the lecture its various strong points were dealt with efficiently and well, and amongst other things, Mr. Williams stressed the importance of obtaining the correct valued high frequency choke coil for use in the circuit. At the conclusion of the lecture members were not slow in plying Mr. Williams with questions relative to his subject, and after these had been satisfactorily disposed of a hearty vote of thanks was carried by acclamation.

The action of Mr. Williams in stepping into the breach at the last moment was particularly appreciated, and such action as this is characteristic of the general body of members of the Society. Should it, at any time, be found impossible, through unforeseen circumstances, to adhere to the syllabus, there is always a volunteer ready at a moment's notice to provide his fellow members with an impromptu lecture upon some matter of general interest. Herein, no doubt, lies one of the secrets of the Society's success.

Next Tuesday evening the 15th general meeting will be held, and on this occasion Mr. W. L. Hamilton will be present for the purpose of delivering the 14th lecture of syllabus No. 4. Mr. Hamilton is better known to the wireless fraternity as "Insulator," and his subject—"Reflex Circuits and the Principles Underlying Them"—promises to be particularly interesting. The 155th general meeting will follow on December 15th, when it is hoped that Mr. McFarlane's postponed lecture on "Stor-

age Batteries" will eventuate, but should it not be possible for Mr. McFarlane to be present on that occasion, other set business will be arranged in the meantime. On December 22nd, the last meeting of the year will be held, and this will take the form of a Social Evening to be held at the Collonade Hall, Johnston Street, Annandale. Every endeavour is being made by the Social Committee to make the evening an unqualified success, and as it is expected that representatives from other clubs will be present, together with a number of other gentlemen prominent in amateur wireless circles, members are looking forward to spending a very pleasant evening. This meeting will mark the conclusion of syllabus No. 4, and the Society is taking immediate steps to draft the next syllabus which, it is expected, will be even more comprehensive and attractive than the last.

Inquiries regarding the activities of the Society are welcomed, and these should be addressed to the Hon. Secretary, Mr. W. J. Zech, 145 Booth Street, Annandale, or, should it be so desired, inquiries may be made at the club-room, 176 Johnston Street, Annandale, between the hours of 8 and 10 p.m. on Tuesday evenings, when meetings are held.

STRATHFIELD AND DISTRICT RADIO CLUB *

The last meeting was held at the Club-rooms, corner Albert Road and Duke Street, Strathfield, on Wednesday, 25th instant, when there was a very good attendance.

After an analysis of Maclurcan Cup returns had been read, and various remarks passed, on this and all clubs' night held at the Institute, on the 19th instant, Mr. Burman gave his lecture on oscillating crystals. He gave the various circuits he had worked out from the original of the Russian engineer up to his present receiver; he also stated he has discovered a most probable reason for long distance reception, both when the crystal set is oscillating and also when it is not. Some of the members have already taken this subject up, and others intend to do so in the near future. The chairman proposed a vote of thanks to Mr. Burman for his fine lecture.

Correspondence regarding membership, etc., addressed to the Hon. Secretary, 1 Mill's Crescent, will be promptly attended to.

WIRELESS OFFICERS.

List of Marine Staff Changes for Week ending 26/11/25.

R. Jordan, signed on "Marsina," in Sydney.

V. P. Nevins, signed on "Urilla," in Sydney.

BROWN LOUD SPEAKERS.

We are advised by Noyes Bros. (Sydney) Ltd., who, in conjunction with Noyes Bros. (Melbourne) Pty. Ltd., are sole selling agents for Brown loud speakers, that substantial price reductions have taken place, effective as from 1st December.

This will come as welcome news to those radio users who will have the best, and their numbers are rapidly increasing. It will be no less welcome to those who have long aspired to possess a really good loud speaker, but for whom—for considerations of economy, no doubt—a lower grade article has had to suffice.

The reductions amount to as much as £5/5/- for the aristocratic "Q" type, which now sells at £21, down to £1/10/- and 15/- for the H.1. and H.2. types, which will retail at £7/10/- and £3/5/- respectively.

The Brown loud speakers have many exclusive features which render them free from distortion, and they have become very popular for this reason.

Messrs. Noyes Brothers will be pleased to forward full particulars to any reader on receipt of a postcard.

A CORRECTION.

In last week's issue of "Wireless Weekly" was featured the KGO4. We regret that the sizes of coils used were omitted. Here they are:—

Aerial coil: P = 7 turns.

S = 65 turns.

Tuned Impedance coil: T.I. = 65 turns, tapped at 16th for radio frequency.

R = 22 turns.

Also a little mistake occurred in the list of component parts.

Line 10 reads:

1 Variable Condenser.

This, however, should read:

1 Variable Grid Leak.

"S" TUBES.

To the Editor.

Dear Sir,—I notice in your description of the new station 2W1 that "S" tubes are used for supplying high power for the first time in Australia.

It may interest some of the "2's" to know that I have been using "S" tubes—first 6 and then 8—to supply my transmitter with anything up to 600 watts, i.e., 3000 volts at 200 M.a., for the last six months.

With this load the "S" tubes run almost cold, and are in every way satisfactory.

Wishing 2W1 every success and much DX.

Yours, etc.,

MAXWELL HOWDEN (3BQ).

Box Hill.

Esperanto News**The Key to World Broadcasting.**

Hugh S. Poccock, editor of "Wireless World," writing on the future of Esperanto, says:—

"If we look back into history," wrote Mr. Poccock, "we find that every great step in the progress of civilisation has been gradual. Human nature is not developed to adopt rapidly the advantages which the initiative and genius of pioneers provides. Take any of the great scientific contributors to civilisation, such as the inventors of the steam engine, electricity, the motor car, and wireless telegraphy; all these have taken many years to impress their importance upon civilisation as a whole, and their recognition has only been achieved through the persistence and determination of a small minority who believed in their possibilities and developed them until their practical value could no longer fail to be appreciated by the majority.

"Esperanto may well be classed with the scientific contributions to civilisation, for it may be more correctly described as a science than an art. Here again we may observe the very slow progress in the adoption of this new aid to civilisation, and, indeed, it may be said that only now, after years of labour on the part of pioneers, is Esperanto beginning to be recognised as a truly valuable aid to international prosperity. Were it not for the fact that almost all new developments in their early stages have met with the same apathy on the part of the public, the pioneers of Esperanto would have every reason to have felt acute disappointment at its reception in past years.

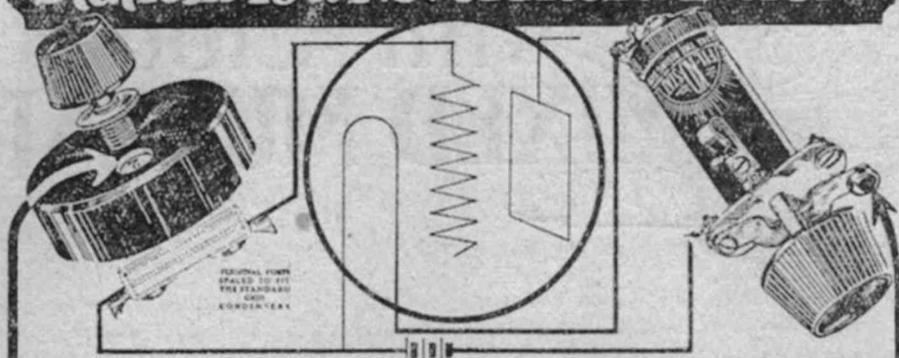
"Wireless telegraphy is another branch of science which, until recent years, has not made anything like the progress which its importance has merited, and it is not until now, when wireless telephony has been so universally adopted, that the true possibilities afforded by its introduction have been recognised.

"In all international communication of the future, wireless telephony is destined to play a most important role, and herein may be seen a new and wonderful application for the international language, Esperanto.

"Have we not a somewhat parallel example of the dependence of two sciences one upon the other in wireless telephony and Esperanto? Esperanto may be regarded as the key to successful world broadcasting, whilst in broadcasting Esperanto should find its greatest and most far-reaching application.

Stations You Never Heard Before

12/6



12/6

-thru scientific tube tuning

The most important (and most neglected) tuning unit on your set is the tube. It is the one thing you can adjust to bring weak stations to audibility—to eliminate distortion on local programs. Coils and condensers are easily tuned to incoming waves, but wave-length isn't everything. The antenna gets distant broadcasters but their signals never reach the phones unless you tune the tube to the different characteristics of the weak, distant stations. Here are two instruments distinctly designed to improve reception through their ability to control tube action—FIL-KO-LEAK to tune the grid by securing correct grid bias—FIL-KO-STAT to tune the plate-filament circuit by its control of electronic flow. Together they assure you maximum audibility, clearer signals and freedom from oscillations and other tube noises. *They bring in stations you never heard before.*

FIL-KO-LEAK
SCIENTIFICALLY CORRECT
VARIABLE GRID LEAK
Individually Calibrated

FIL-KO-STAT
SCIENTIFICALLY CORRECT RADIO RHEOSTAT
with Battery Switch

You will get stations you never heard before with Fil-KO-Leak. Clear up distortion and increase volume. You can "log" your Fil-KO-Leak as you do your other tuning units. Each Fil-KO-Leak is individually hand calibrated over the operating range of all tubes $\frac{1}{4}$ to 5 megohms. Set it for specified resistance and adjust it for best results. Resistance read in megohms through panel peep-hole. (Base-board mounting furnished.) Resistance element constant, accurate, not affected by atmospheric conditions, wear or jarring. Assures smooth, gradual control of resistance and correct grid bias. *Unconditionally guaranteed.*

Tune your tube filament with Fil-KO-Stat and receive stations you never heard before, get greater distance, louder signals, sharper tuning, freedom from tube noises. Fil-KO-Stat is the only rheostat that permits adjustment over the entire operating range of all tubes and enables you to get maximum audibility in phones or loud speaker. And now the improved model is fitted with battery switch that attaches to the regular mounting screws. Distinctly signals "on" and "off" and enables you to break circuit without changing Fil-KO-Stat adjustment. Fil-KO-Stat fits any type tube in any hook up. *Unconditionally guaranteed.*

12/6



Absolutely warranted to protect your set from lightning, with a guarantee to pay you \$100 or to repair your set, should it be damaged through faulty operation of the arrester.

The "umbrella" shield keeps dust, moisture, etc., from the insulation, preventing leakage losses from serial to ground. This makes certain that all radio impulses reaching the antenna pass through your set, which assures maximum reception.



10/-

ALL DEALERS

RADIO DISTRIBUTORS

Broughton House, King and Clarence Streets, Sydney



SEASONINGS WITH A TOUCH OF MIXED MUSTARD.

A delightful talk is promised by Station 2BL on December 8th, when Mr. Leo Buring, managing director of Lindeman's, proprietors of the famous vineyards, will lecture on "The Story of Wine through the Ages." In addition to being one of the greatest authorities on viticulture in Australia, Mr. Buring is also a scholarly researcher into historical matters concerning the vintages that have become famous.

Miss Leonore Gotsch, a very distinguished artiste, who studied near Liepzig, in Germany, for nearly seven years, is now being regularly heard on programmes from 2BL. Miss Gotsch is a Lieder singer of the very finest attainments, and in musical circles is regarded as the Elena Gerhardt of Australia. In addition to Brahms and other Lieder writers, Miss Gotsch has also studied operatic numbers and specialises in the earlier works of Mozart.

Tuesday afternoon in each week is rapidly becoming noted amongst musical listeners-in by reason of the splendid number of complete works that are being presented per medium of the gramophone. Works hitherto unheard in Australia are being presented in their entire form wherever available. One of the most distinguished to be so introduced is the famous Symphonic Poem, "Ein heldenleben" (The Life of a Hero), by Richard Strauss. Schubert's Unfinished Symphony and Beethoven's Symphony No. 4. Further numbers to be so presented are "The Planets," by Gustave Holst, and "The Pathétique," by Tschaiowsky.

The transmission of church services from 2BL has now been brought up to a fine art. The transmission of Guilmant's "Messe Solennelle" from St. Patrick's, Church Hill, conveyed the full beauty as well as the religious feeling of this magnificent piece of ecclesiastical music. So popular, indeed, have church services become, that the demand constantly increases. In addition, the co-operation of the clergy

of various denominations is now so great that every Sunday until the end of February has been fully booked up.

The custom of giving little explanatory details in regard to compositions presented by various artists is proving an acceptable feature from 2BL's studio. Many of the delightful old works that are now being presented lend themselves to this form of treatment, and are listened to with increased attention and appreciation. Miss Dorrie Ward and Mr. W. E. Lewis are two artists presenting numbers that have specially lent themselves to this method of treatment.

Already 2BL is engaged in consideration of Christmas novelties, and it is anticipated that the festive season will be rendered more joyous by reason of this fact. Novelties of various concerts are under consideration, and it is probable that special carol singing and other Christmas festivities will mark the season.

By co-operation of the Sun Newspapers Ltd., the major portion of Saturday afternoon's programme from 2BL is given over entirely to sporting items, which are broadcasted direct from the editorial office of the "Sun." This means that the latest information concerning all sporting events throughout the Commonwealth and the Dominion of N.Z. are put on the air within a few seconds of their actual receipt. The result is that many listeners-in are enabled to keep the closest possible touch with the sporting world through the whole of the afternoon session.

Uncle George, of 2BL, whose benefactions are so numerous, continues to interest himself in all manner of good works. 2BL's studio on a Saturday morning is usually piled high with flowers, which are despatched to the hospital, and recently parcels

of books and delightful articles for sale at a bazaar were sent along from Uncle George's numerous wireless family to be sold in aid of the Ryde Home for Incurables. At the School for the Blind, the announcement that Uncle George's car is heard in the distance is sufficient to bring smiles to tiny faces that smile all too infrequently. There can be no question that Uncle George leads all public personalities in Australia.

Reports from N.Z., Fiji, and Papua continue to bear witness to the improvement that has resulted from the transference of 2BL's station to Coogee and the increase in the power being used. A eulogistic report from Honolulu testifies to the fact that 2BL is being received there with as much appreciation as any of the broadcasting stations on the Pacific Coast of the U.S.A. It is anticipated that further improvements will be noted when once 2BL is transferred to the new studios which are at present in course of erection.

A novelty emanating from 2BL's studio is the broadcasting once a week of a story in French for the benefit of French students and the French-speaking listening-in public generally. To ensure a perfect accent and idiom, the services of Madame Henri, of the State Conservatorium, have been enlisted.



Mr. Bruce Carter, former solo-cellist with Madame Melba, and popular with listeners-in to 2BL.

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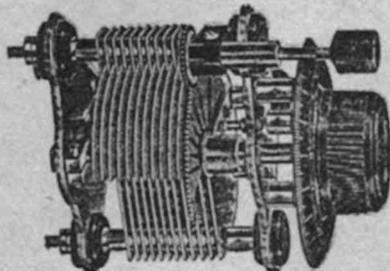
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every Monday and Thursday, 6 to 9 p.m.

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GROUNDING ALUMINIUM END PLATES.

'Capacity effects' and dielectric losses in a condenser are directly traceable to end plates of insulating material. Such end plates also markedly increase equivalent series resistance. The new HEATH CONDENSER displaces the customary end plates with sturdy aluminium end plates, into which small solid pieces of hard rubber are forced, forming the insulation of the rotor from the stator plates. Grounding these end plates entirely eliminates 'leakage' and any need for shielding.

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The metal end plates in HEATH CONDENSERS entirely prevent the warping and consequently dis-alignment of plates common in condensers using end plates of insulating material. Stator and Rotor Plates Spacing, supports and end plates are made practically ALL ONE rigid, non-warping piece of metal. Every element that could possibly decrease the efficiency of a condenser at any time has been completely overcome in this new Heath Condenser.

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Before a single condenser was placed on the market, it was submitted to leading testing laboratories for impartial analysis. Their findings place the Model 'A' at the very peak of condenser perfection. The New York Testing Laboratories found an equivalent series resistance of only 0.1 ohm and a phase difference of less than one minute.

GEARED MICROMETER VERNIER, PLUS THE TWO BIG FEATURES OF HEATH CONDENSERS.

This new Heath Condenser embodies, of course, the two exclusive advantages of HEATH construction—permanently Flat, non-warping plates and the geared micrometer vernier. We guarantee the Heath Vernier Condensers to be more highly selective than any vernier condensers employing a vernier device which actuates ALL of the plates.

HEATH'S will improve your set immensely. Prices, with Geared Micrometer Vernier: .061, 35/6; .0005, 30/-; .00025, 27/-; Plain 7/- less (.00035 Plain, 25/6). Dials, 3 inch, 4/- extra. Obtainable at Wiles', Colville-Moore, Farmer's, Cullen's, Radio House, David Jones'.

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LOCAL INTERFERENCE

LOCATING SOURCES OF TROUBLE.

By "Wireless Weekly."



In some country towns where daylight reception is perfect it is impossible to receive satisfactorily at night owing to commutator noises, caused by

local generators, etc. The following article, which is based on actual experience, should prove very helpful to readers who suffer with this very annoying and persistent problem. In the first place it must be remembered that all conductors (wires or cables) carrying current are surrounded by an electromagnetic field. When the current in the conductor changes, the electromagnetic field also changes in a similar manner, and will therefore induce a fluctuating voltage in any radio receiving aerial which is situated close to it. In the case of very high voltage A.C. mains, such as are used for long distance transmission of current, the field which surrounds the conductors is called an electrostatic field, changes of which affect the receiving aerial in a similar manner.

Now, under normal conditions on electric power mains, these electromagnetic or electrostatic fields which surround the conductors do not extend more than a few yards from the main wires. In some cases, however, where large step-down voltage transformers are used to transform the voltage from several thousands of volts to 200 or 240 volts, electrical surges will sometimes take place. These surges often travel many miles along a conducting wire and produce radiation which may be picked up on numerous radio receivers at considerable distances from the mains. For this reason the aerial earth system, or aerial counterpoise, should be placed as far away as possible from all electric power mains. In cases where it is not practical to get far enough away from them the aerial and counterpoise should be run as nearly as possible in a direction at right angles to the power line. Always remember that the induction is very much greater on aerials which run parallel to power lines.

Battery chargers of the mechanical rectifier type often cause small electric surges, which may travel along the supply wires and cause radio interference to a great number of receivers close at hand. Some rectifiers are by no means exempt from this interference. Quite recently we experienced considerable interference every Sunday afternoon on 30 to 40 metres. After exhaustive

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2 VALVE SETS	15 10 0
3 VALVE SETS	21 10 0
4 VALVE SETS	27 10 0
5 VALVE SETS	32 10 0



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No. of Turns	Unmounted	Mounted with Ordinary Plugs.	De Luxe Plugs.
20	1 8	4 0	5 0
25	1 10	4 3	5 3
35	1 10	4 3	5 3
50	2 0	4 6	5 6
75	2 1	4 6	5 6
100	2 4	4 9	5 9
150	2 6	5 0	6 0
200	3 0	5 6	6 6
250	3 6	6 0	7 0

.0005 Variable Condenser	9/-
.001 Variable Condenser	10/-
Valves, from, each	5/-
Panel Plugs	1/3
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tests, in which the power house engineer rendered invaluable assistance by switching off the various circuits and mains, the trouble was located over half a mile away from our station. The owner of the rectifier explained that he usually charged his battery every Sunday afternoon.

D.C. motors and generators, which in some cases cause considerable interference due to sparking of the brushes, may often be recognised by the frequency or the pitch of the sound heard in the radio receiver. The interfering noise will, of course, rise in pitch as the motor speeds up. In the same way, all other forms of interference will each have their own characteristic sounds by which you can recognise them, and with a little friendly co-operation with the owners of such generators or motors you will readily find out the one which is causing you the inconvenience. In the case of interference caused by rectifiers the noise heard will be a regular series of clicks or hums corresponding to the frequency of the 60 cycles A.C.

Tests to Determine Source of Trouble.

First test: To determine if the interfering noise in the receiver is due to a fault in the receiver or is actually an external interference from an outside source, disconnect your aerial and ground wires. If there is no reduction in the volume of interference it is very probable that the source of the noise is in your own receiver. Check B battery voltages carefully, also the A battery if of the dry cell type. Make sure there are no loose connections anywhere.

Second Test: If the interfering noise ceases when the aerial and earth connection is removed, you may be fairly sure that the actual receiver is O.K. You must next, however, determine whether the interference originates in your own house lighting circuit. To do this get some one to open and close your main house-lighting switch situated at the meter. If the interference stops when the switch is open the source of trouble is undoubtedly in your own circuit, and may be caused by a poorly fitted lamp socket, a loose connection, etc.

Third test: To determine the extent of the area affected by the interference. When you are confident that the cause of your trouble is not in your own receiver or your own house lighting circuit, you should get into touch with others in your same district who have similar receivers to your own, and by keeping an accurate log of the interference and recording any characteristic change in the interference the cause of the trouble will very soon be found.

Fourth test: To determine if the suspected source actually causes radio interference. In carrying out this test the watches of the observers must all be synchronised in order to obtain com-

plete accurate data. Some misleading reports, from listeners-in in the Narrandera (N.S.W.) district who were not sufficiently accurate, led to the assertion that the local interference experienced there was associated with the switching on of the street lights. The local electrician, who was a radio fan, proved beyond doubt that the report was wrong by switching off the street lights at a pre-arranged time. It was afterwards discovered that the interference was caused by a badly sparking motor used in the Picture House.

Fifth test: To determine from whence the interference radiates by means of a portable radio receiver. In places where the interfering noise is of such a weak nature that it only interferes with very long distance reception, a sensitive loop receiver will be required to locate the position.

The use of the counterpoise in lieu of the earth will invariably decrease the volume of the interfering noise from 20 to 25 per cent.

In conclusion, we would like to strongly urge both individual experimenters and Clubs to take up this matter of locating and preventing the annoying interferences we have mentioned. In other countries organised bodies have taken up this work, which has proved invaluable and instructive to all concerned. We feel confident that owners of plants which do cause interference will readily co-operate if they are approached in a friendly and sensible manner.

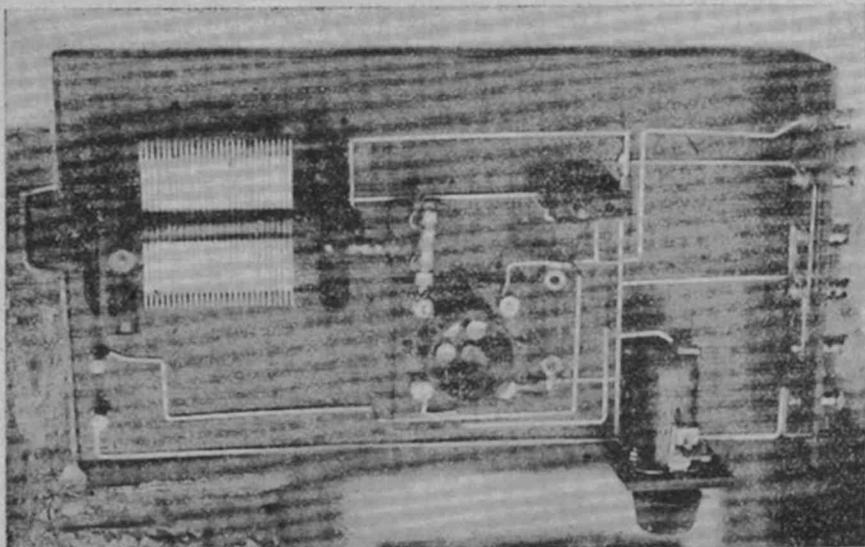
By carefully cleaning the commutator and correctly setting the position and tension of the brushes bearing on the commutator, the results obtained will more than compensate for the trouble involved both from the owners' point of view and the radio listener or experimenter.



Mr.
HORACE KEATS.
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thousands from*
— 2BL —

The Marnikay Single Valver

By "Insulator"



Quite a goodly number of people are very anxious to bring in the distant station with the minimum of valves. I am to be included in this category and in the process of elimination I have come down to the Marnikay, which is a one valve, one coil, one condenser, set, which will be found eminently suitable for many purposes. The layout, as may be gathered from the illustrations, is quite unusual but extremely simple, and the efficiency of the receiver is particularly good. The circuit employed is not in any way new, in fact it is an old circuit known to many of the earlier radiomen as the Ultraudion. On local reception excellent volume will be given, and with proper handling the distant station will be brought in quite successfully.

Within half an hour of the completion of the set I had the pleasure of hearing both 3LO and 5CL at quite good volume. Later on 6WF was

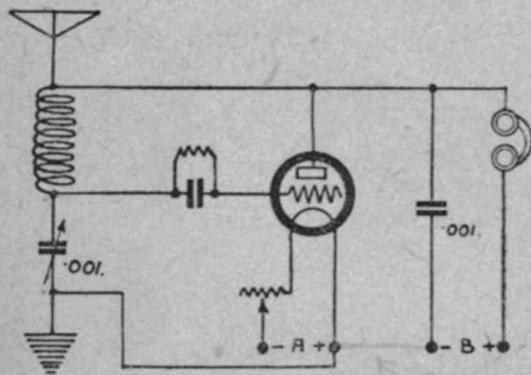
heard, though static was bad. It necessarily follows that if these stations were received the Marnikay is selective. It is, in fact, so much so that the local station is inclined to be passed over without being aware of its presence. Therefore, bear in mind that fine tuning is necessary with this receiver and also remember that the filament control is a great aid in tuning. This factor applies to all receivers and invariably the actual rheostats are those controlling the detector and also the radio frequency valves.

With the Marnikay, filament current was so critical that I had occasion to take off a standard 35 ohm wire rheostat and substitute in its place a Filkostat. For distant results the difference was magical and I might be pardoned for stressing the necessity for a Filkostat.

Here is a list of parts necessary:

- 1 baseboard, 13 x 7 x 5/8.
- 1 strip of radion, 7 x 2 1/2 x 3/16th (terminals).
- 1 strip of radion, 2 x 2 1/2 x 3/16ths (Filkostat).
- 1 panel mount.
- 1 valve socket.
- 1 Filkostat.
- 1 .00025 gridleak condenser.
- 1 .001 variable condenser.
- 1 .001 fixed condenser.
- 8 N.P. terminals.
- 3 1/2 in. brass brackets.
- 4 busbars.

The variable condenser might advantageously be a vernier condenser; beyond this the rest of the apparatus should be of good quality. This is always ensured if you purchase your goods from the advertisers in Wireless Weekly.



The Circuit

BURGESS—"OVER TWICE THE LIFE"—BATTERIES.

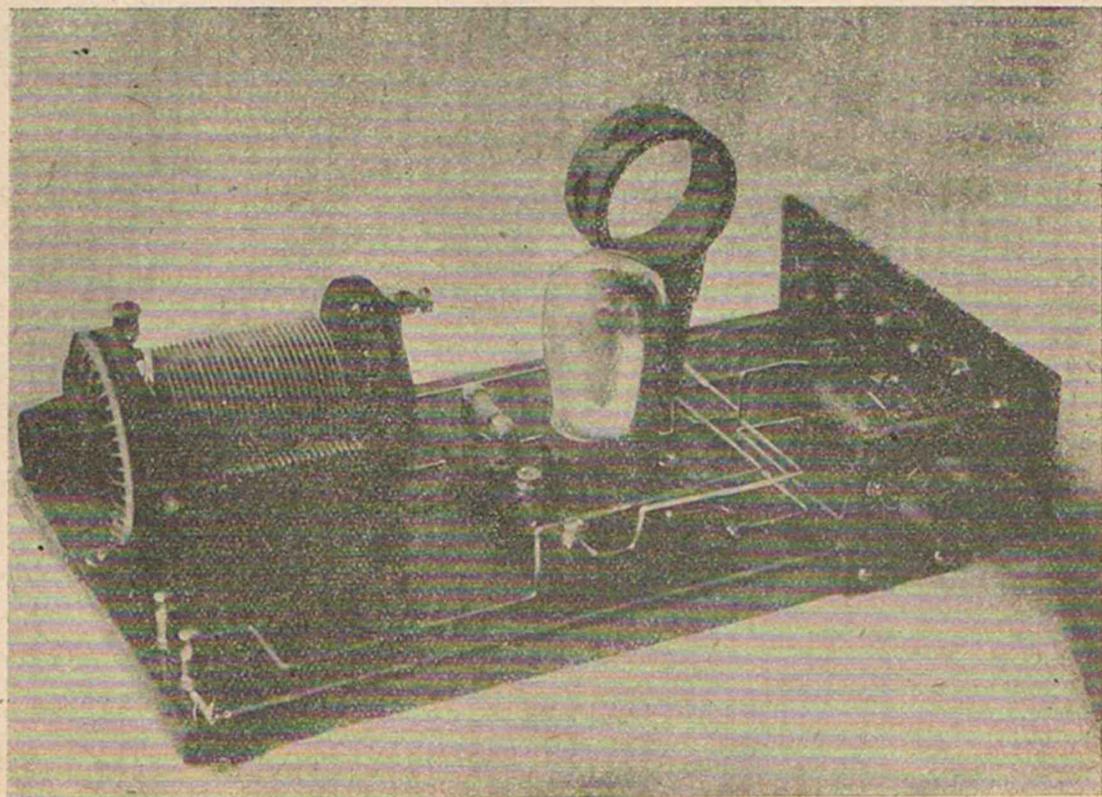
The actual construction details are quite simple, the photographs being a great aid to you in this direction.

Treat the baseboard to one or two coats of shellac, then mount the variable condenser as shown, the three small brackets being pressed into service for this purpose. As will be seen, I use one bracket at the dial end and two brackets at the other end of the condenser. The bakelite end pieces of the condenser are drilled to take short bolts through from the brackets, brass wood screws sufficing to hold these brackets to the baseboard. To the right hand side of the variable condenser and spaced about one inch from the back, is situated the valve socket, while the plug for receiving the coil is spaced one and a half inches away to the left of this socket. On the smaller piece of radion mount the Filkostat.

Complete instructions for mounting the invaluable piece of apparatus is enclosed in the box in which it comes to you. I might mention that there is a battery switch incorporated in the Filkostat which is quite a useful adjunct, so don't hesitate to use it. Now the larger piece of radion has to be drilled to accept six terminals. One inch apart

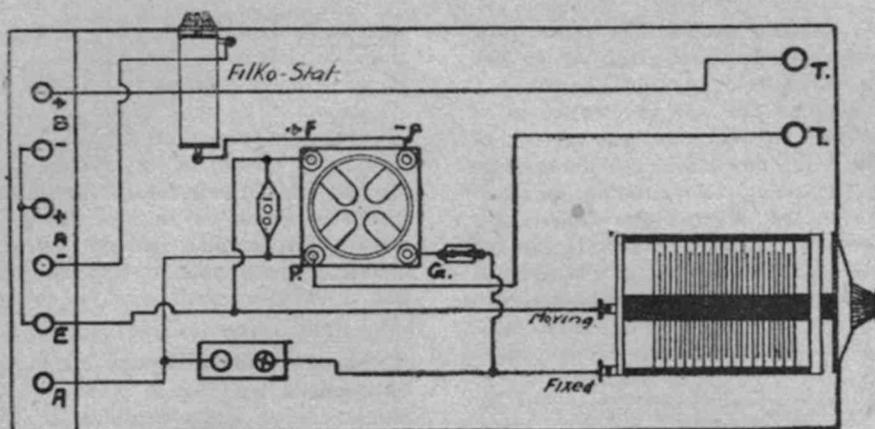
will be found to be an ideal distance for these terminals. On each piece of radion provide a couple of small holes through which pass wood screws for attaching to the edge of the baseboard. Alongside the variable condenser will be found room for two telephone terminals; you may possibly have to countersink large holes in the bottom of the baseboard to allow the nuts of these terminals to be affixed. When all apparatus is secured to the baseboard compare your result with mine before wiring.

This wiring is soon and easily accomplished. Commence with joining the B minus terminal to the A positive and the A positive to the earth terminal (E). From terminal E, run your busbar to the filament positive terminal of your valve socket. The movable plates of your variable condenser are now wired to the busbar which runs from E to F positive of the valve socket, a small touch of solder making the connection. The fixed plates of your condenser are now taken to one side of the coil plug. From terminal A, a lead is taken to terminal P of the valve socket. To this lead is soldered a short connection from the remaining



The Completed Article

BURGESS—"ASK ANY RADIO ENGINEER"—BATTERIES.



The Panel Layout

side of your coil plug and also a lead which runs to one of the telephone terminals (T).

The remaining terminals T is taken along one side of the baseboard to the B positive terminal of the terminal board. Terminal A minus of the board now joins the switch terminal of the Filko-stat, while the Comstock clip of this Filkostat is connected to the filament minus terminal of the valve socket. One side of the grid condenser and lead is screwed under terminal G of the valve socket, while the other side is soldered to that busbar which connects the fixed plates of the variable condenser to the coil plug. The fixed condenser .001 is placed between the busbar which joins P of the valve socket to A of the terminal board and the busbar running from E to the filament positive terminal of the valve socket. This completes the wiring. Notice of course that one Comstock clip of the Filkostat is not connected to correct connections for this side being to the switch leg.

Now comes the operation — a most interesting part. First of all test your battery connections, by connecting the A battery to the B battery terminals, insert your valve and coil and if the filament of the valve lights up in turning your Filko-stat, stop immediately and rectify the error on your battery wiring. Compare the wiring diagram and the photographs with your own set and you will then be able to correct your mistake. However, granted that everything is O.K., connect your A battery to the correct A battery terminals and your B battery to their respective terminals. Note carefully that you have the B positive of your battery connected to the B positive terminal of your set. If this battery is reversed you will get no results whatever.

Now hook on your aerial and earth, and con-

nect up your phones. With your valve in the socket and a 50 turn coil in the plug in the coil holder, slowly turn your Filkostat until the valve is just alight. Now slowly turn your condenser and you will presently hear a signal. Gradually increase your filament until maximum results are obtained and tune finely with your condenser. On each side of your signal you will find a decided whistle varying in cadence as you turn your condenser. If on your first trial you receive this whistle tune into the lowest pitch and gradually lower your filament, when the whistle will disappear and clear speech or music will be heard. Having cleared it up it is often possible to increase the signal strength by slowly turning your filament up; mind you, if you turn it too high the set will break into oscillation again and you will have to start all over again.

This set is highly regenerative, hence the whistle. Play about with the condenser and Filko-stat on 2BL's transmission until you understand the working of the receiver, and then go for, say, 3LO. I'll help you in this. Say you receive 2BL on degree 50 of your condenser dial, that is your movable plates half in. To receive 3LO, you have to turn your movable plates another fraction in making your reading, say, 55 or 57 degrees. At least you will get the whistle or carrier wave, which drops from a high pitch to a low pitch then up again to a high pitch. 3LO is to be found at the lowest pitch, perhaps somewhat growly, but nevertheless present. This can be cleared up. Try turning your Filko-stat in such a way as to lower the filament. The station should now be heard faint but clearly, and by careful manoeuvring with the Filko-stat increased volume will result.

For 5CL turn your condenser round em-meshing a little more of your movable plates and

the whistle will be heard as before. Repeat your tuning operations until the station is heard clearly and you will be very pleased with the result. A little careful practice will yield surprising results, and, of course, the longer you have the set the more accomplished you will become. It is a very foolish habit to build a set, try it out for a night or two and then scrap it. No one can get the best from any receiver in that short time. I am still learning from the old S.T.100 and can truthfully state that I know much more about this circuit than I did twelve months ago. The same applies to any receiver; you must use it a lot before you know the best of it.

However, the Marnikay will respond to all the Australian broadcasting stations. A list of coils are given here for the various stations, but before leaving you I may mention an interesting fact regarding long wave Morse stations. There is hardly anything better than a long wave station for learning the Morse Code, as most stations transmit it about 12 words a minute and repeat each word three times. So, by plugging in any coil from a 300 turn to a 1500 turn, slow Morse will be heard.

Coil 35 yields: 2UE, 2UW, 2MK, 2KY and 2BL.

Coil 50 yields: 2KY, 2BL, 3LO, 5CL and 4QG.

Coil 75 yields: 5CL, 3AR and 600 metre Morse.

Coil 100 yields: 2FC.

Coil 150 yields: 2FC (better) and 6WF.

When I say 6WF, I mean it; try for yourself. Perhaps you will require one stage of audio to bring it up more clearly. Still you will realise this for yourself. It has just occurred to me that I have spoken about A and B batteries as if all the world knows what they are. Let me explain this for the benefit of those who don't know. The A battery is required to light up the filament of your valve, and its type depends on the valve in use.

For 201A type, True Blue, DV2 and DV5, Geco, DE5 and RV5, and all other .25 amp. valves use 6 volt accumulator. For DV3, De Forest, UV199, A.W.A. 199 and 33, 2Ediswan DE and AR.06, Phillip's A.4L4, 406, 410 and 199 and all other valves drawing .06 of an ampere, three dry cells connected in series will suffice for an A battery.

Dont' Miss the current issue of
"RADIO"
It's chock full of good articles

Mullard, Ora, Phillips D1, D11, D4, and E, Cosar and all other English bright-emitter types, a 4-volt accumulator is necessary. Only this type of valve requires a 6 ohm rheostat; most others require a 30 or 35 ohm rheostat, although the Filko-stat is suitable for any type of valve.

The B battery consists of a block of small dry cells, usually of a potential of from 42 to 45 volts. By joining two or more in series the voltage is built up, but for the Marnikay one 42 volt is sufficient. Always work on as low a B battery as is commensurate with the results required, and read carefully the instructions enclosed with each valve.

These little hints, I don't think are out of place.

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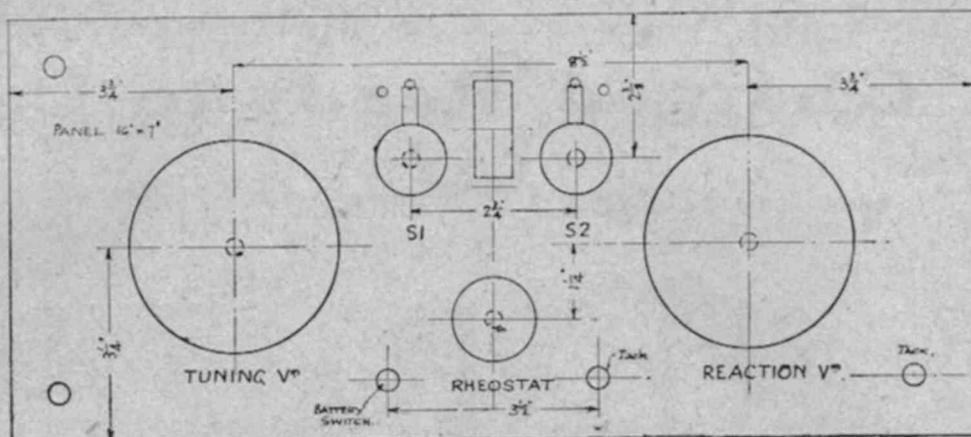


FIG 2

valve socket, the make and type of valve and last, but not least, the condition of the "B" battery.

At the present time variometers are regarded by a number of traders (and others who should know better) as "junk," and good high-class instruments made by "Remler," Attwater-Kent, and others can be picked up for as low as 12/6, while small English variometers are on offer from 5/- upwards. If these prices are too high a satisfactory type can be made by winding 30 turns of heavy gauge D.C.C. wire into a coil 4 inches diameter to form the stator, and 35 turns into a coil about 3 1/2 inches diameter to form the rotor. The windings can be jumble

wound, around one's hand for example, and bound up with thread or twine. A good mounting can be made by cutting up a cigar box (price 3d.) and binding the rotary coil to a meat skewer to form the spindle.

The loading coil L1 is a No. 175 honeycomb coil or its equivalent—a No. 150 coil will be sufficient if large variometers are used.

The prices of Audio frequency transformers range from about 7/6 to 65/- each, while they can be obtained in all ratios ranging from 2 to 1 up to 10 to 1. The top price suits the rich man, the top ratio suits the D.X. enthusiast—until he wishes to

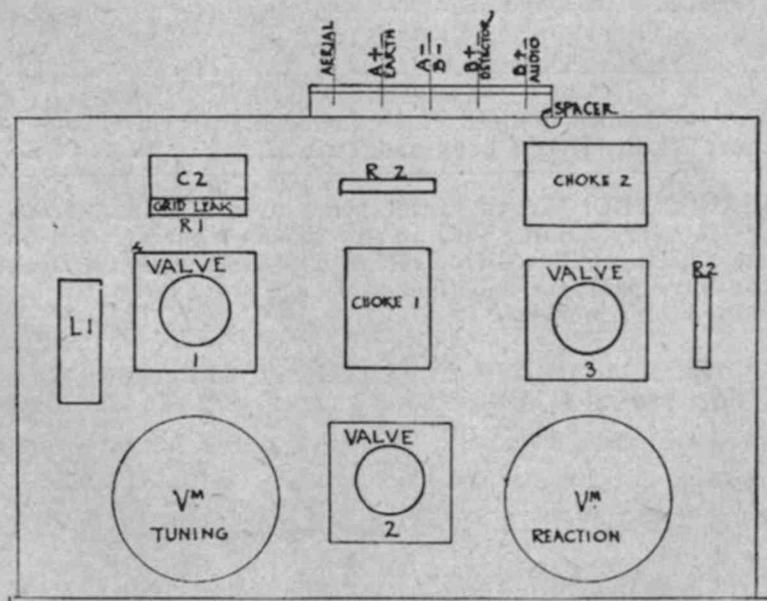
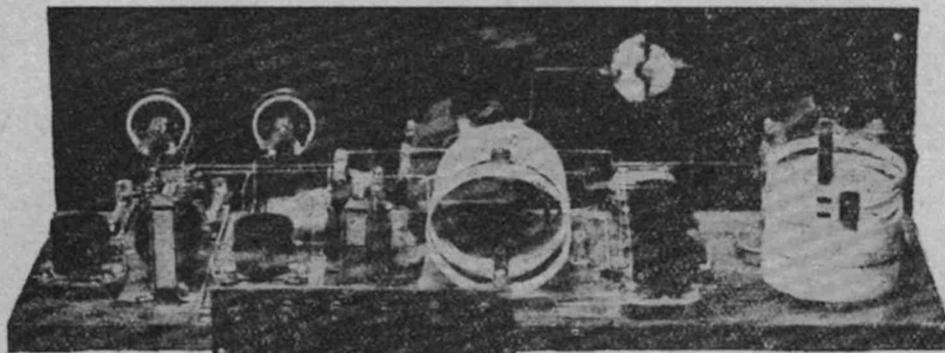


FIG 3

The Famous KGO 4



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1 18 x 7 x 1/8 Bakelite Panel	£0 10 6
1 Baseboard	0 3 0
2 .0005 Menominee Low Loss Condensers	2 10 0
1 .00045 Condenser and Dial	0 6 6
1 lb. 20g. D.C.C. Wire	0 3 6
1 .00025 Freshman Condenser	0 2 6
1 .002 Freshman Condenser	0 2 9
1 Amperite	0 7 6
1 Bradleystat	0 15 0
2 30-ohm Aero Rheostats	0 10 0
1 Freshman Variable Leak	0 4 6
4 H. & H. Pussyfoot Sockets	0 19 0
1 H. & H. D.C. Jack	0 4 0
1 H. & H. S.C. Jack	0 3 3
14 N.P. Terminals	0 4 8
1 Cutler Hammer Battery Switch	0 4 3
2 Jefferson 41 Transformers	2 15 0
Panel Wire, Solder and Screws, etc.	0 1 9
1 Piece Bakelite, 6 x 2 x 1/8	0 1 0

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use the 10 to 1 transformer in his broadcast receiver, when he finds that the manufacturers intended it to be used for the reception of key tuning thumps and not for music.

As a transformer its days of usefulness are past, but as a choke coil it is excellent and it is in this way that it should be used. The very cheap type of transformers make excellent choke coils provided that their inductance is somewhere in the neighbourhood of one henry.

With choke coupling in audio frequency amplifiers the whole of the musical tones are evenly amplified and no distortion whatever can be noticed. The degree of amplification is lower than is obtained from transformer coupling, but the reproduction is purer and clearer.

The coupling condensers (C4) should have a capacity of from .05 to .25 mfd. and the grid leaks (R2) should have a resistance of from $\frac{1}{2}$ to 1 megohm. Set builders are reminded that good grid condensers and grid leaks are not junk and cannot be obtained from the scrap heap, so the best price that one can afford should be paid for the condensers marked C2 and C4 and for the grid leaks R1 and R2.

The values specified are those which have been found to give the best results. C2 is the standard grid condenser of .00025 mfd. capacity, and the grid leak, R1, has a resistance of about $2\frac{1}{2}$ megohms.

In building the receiver the components may be spaced as shown in figures 2 and 3. A complete list of the materials which will be required is as follows:

- 1 panel, Bakelite or Radion
- 1 sub-panel, Bakelite or Radion.
- 8 terminals.
- 2 variometers with dials.
- 1 fixed condenser—.0005 mfd.
- 1 fixed condenser, .001 mfd.
- 1 fixed condenser—.00025 mfd.
- 2 fixed condensers—.10 or .05 mfd.
- 1 grid leak— $2\frac{1}{2}$ megohms.
- 2 grid leaks— $\frac{1}{2}$ megohm.
- 2 rheostats with dials.
- 2 jacks or phone terminals.
- 2 A.F. transformers or chokes.
- 3 valve sockets.
- 1 baseboard.
- $\frac{1}{2}$ lb. tinned wire.
- 1 battery switch.
- 2 lever switches.
- 3 valves
 - 1 6-volt accumulator.
 - 1 100-volt "B" battery.
- Phones or loud speaker.

Where economy is of paramount importance, very good Ebonite 3-ply panels of the required size can be bought for about 6/- each. For cutting out the coil L1 and condenser C3 when tuning below 600 metres, two lever switches are required. These will cost about 1/- each, complete with studs and stops. The filament rheostats can be bought from a well-known trader for 1/6 each, the particular variety being one of the tribe of "stats."

When connecting up the transformers in the circuit as choke coils, their inductance can be increased by connecting the primary and secondary circuits in series, but care should be taken to see that both windings are intact. The right way to do this is to connect O.S. to the plate of the valve, connect I.S. to O.P., and connection I.P. to the "B" battery. In American transformers these markings are:—

O.S. = G., I.S. = F., O.P. = B., I.P. = P.

If the primary winding is broken or if you are not certain of the above connections connect one side of the secondary to the plate and the other to the "B" battery

Stations were received on the speaker at ranges in excess of 500 miles during some recent investigations and, therefore, one can recommend this receiver, not only for its simplicity and extremely low cost, but also for its sensitivity and the excellence of the reproduction on the loud speaker.

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BURGESS—"POWER, HARMONY, ENDURANCE"—BATTERIES

Victorian Notes

First to Hear England



Arising out of a recent note in these columns, an explanation from 2CM, and a further letter by the writer, published in "Wireless Weekly" a while back, Mr. MacLurean has written a most disarming letter to the author of these notes, acknowledging the justice of these comments as based on all available published evidence, but stating that he did actually hear G-2OD and entered it in his log at the time, and consequently heard him before Mr. Pringle heard G-5NN. However, as the main point at issue is concerned rather with a session than a point of time, it is safe to say that both these experimenters heard England simultaneously and each heard a different station. 2CM heard G-2OD as one veteran calling to another, while Mr. Pringle, of Victoria, heard G-5NN in a general fall. There is no doubt, therefore, that Mr. Pringle won his spurs in the brilliant company of that other noble knight 2CM, and the prowess of one only enhances that of the other. Is it not a little curious that out of so many amateurs in Australia these two only should have proven themselves fit on one and the same afternoon of last April to receive signals that, according to the weighty words of an eminent authority, have now, only six months later, become quite commonplace?

Let us close the debate by giving to both Mr. MacLurean and Mr. Pringle the honours due to such doughty Daumvirs of the Ether. One thing is, of course, quite certain, and that is that 2CM can well spare a few laurels for his young Victorian emulator. The achievement of Mr. Pringle is not dimmed because 2CM ran him so close. It was a very fine performance to thus adventure abroad on the rather tumultuous ether waves of that April afternoon in the tiny skiff of an unknown station and to land so very fine a fish as G-5NN on his very own. If it had been G-2OD, who is well known in these waters, the deed would have been well enough, but it was even better as it was. Fortune was not niggardly, and had prepared two very fine fish for all who liked to land them, and Fame pronounces over all four a brief "Well done!"

Wireless Criticisms.

Wireless has many children. There are those who take it as an end in itself—of such are the ama-

teurs and the radio engineers. There are others that regard it merely as a means to an end, and they are the listeners-in and those who sing or otherwise perform at the broadcasting studio. Of late, and at times even before that, there have been clamours to have each variety separately licensed, although the celebrated Perth Conference is said to have magnanimously offered to pay equal rates with its lesser brethren, the outside public. But on the whole the two classes are as different as chalk from cheese. Hence arises the difficulty of knowing exactly what not to say when you get among wireless company. The people who write about wireless find the same difficulty. Strictly speaking, even "Wireless Weekly," and more particularly even these Victorian Notes, really oughtn't to criticise "The Programmes."

We are concerned only with howling valves, not howling voices, and really ought to welcome the most villainous of jazz, since jazz is probably a more incisive test of perfect modulation in a wireless set than even the most rapturous of real music. Any one who can discriminate between a jazz orchestra and mere local noises in his receiver may well pride himself on having a well-nigh perfect set. But, of course, those of us who have not yet attained to such perfection have been more or less schooled to tolerate distortion and other such noises vulgarly known as jazz. It is brightly significant that not till wireless had spoiled the young ears of the modern world by accustoming them to hideous shrieks, howls and barbarous dissonances did the cult of jazz also arise and become popular. But really, you know, criticisms such as this have nothing to do with wireless in itself. Cut out all such extraneous allusions and reviews of music, plays, performers, social functions, and your truly wireless paper would have much more room for intriguing circuits and dissertations on the B battery. But would it sell as well?

Broadcasting Bosh



It would be very curious to see inside the heads that determine what shall and what shall not be broadcast from our Australian stations. At present listeners-in are suffering from a surfeit of political results. The racing and betting we have always with us. To make up for these little wickednesses we get choral evensong, church on Sundays, and occasionally the Salvation Army. There can be too little and too much of all or any of these things. Nobody could quarrel with the splendid display of endurance and ingenuity given by 3LO and 3AR in

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Radio Frequency Choke Coils, UL1655	26/6	"
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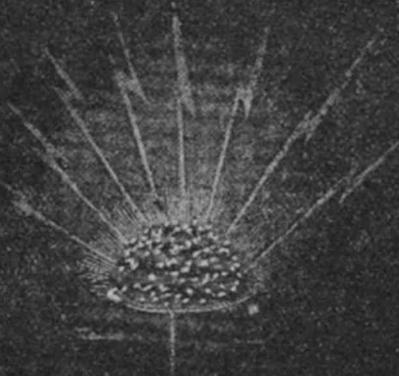
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broadcasting on Saturday night and far into Sunday morning the varying changes in the election counts. It was a treat merely to sit up and listen to Frank Russell read out the figures and make his comments with unabated vigour right up to 2.30 a.m. But subsequent nights made the thing monotonous, and it was surely over the odds to smash up the published programme on Tuesday night merely to read results that were mostly stale. The problem of announcing race results and betting odds calls for the comment that such stuff is as offensive to one side of the community as it is welcome to another, while it is not at all in accordance with the professed policy of the Postal Department as exhibited in another direction. One realises that the broadcasting policy is to supply such matter as will attract the greatest number of subscribers, but in trying to please some of the people some of the time and others of the people the rest of the time the authorities must remember that Scylla and Charybdis are lapped by the waves of the ether just as much as by more material waters. If you please some and displease others at one and the same time, you are between two stools, and very probably will fall to the floor.



The Worst of Wireless

The worst of wireless from a broadcasting point of view is that you can't answer back. How often have we been forced to sit back in our chairs and hear a pet aversion promulgated by some loquacious perverter of the truth speaking from 3LO or other disturber of the ether. One yearns to rise and smite the evil one with the loud speaker and make him measure his length on the cold floor, but it simply can't be done. The loud speaker sits on the parlour mantleshef with its idiotic mouth wide open, and rattles out all the infamies that it gets in the neck, and what redress have you? If the rascally eurdgeon had been addressing you from platform or pulpit you could rise, look coldly dignified, and walk out. If he had written it in the newspapers you could write a slashing letter to the editors concerned, and they, of course, would gladly print it after cutting out the libellous matter and otherwise reducing it to mince-meat. Then the world would know that you at least see through the thin veneer of the other fellow and depreciate his villainous and execrable bad taste. But wireless is worse than a nagging

wife; you can't answer back. The brazen disseminator of false doctrines who shelters himself in a broadcasting studio like an Adullamite in his cavern sniggers to himself, as he knows he is immune and can pour poison into the ears of the world at large, while you sit spellbound and unable to apply the antidote of your superior intelligence. Your only solace is to mutter the call-letters of 3LO backwards, slowly, with an emphatic aspirate on the final letter, as an exorcist who reverses an evil spell. Or you can quote Comus and remark: "I hate when Vice can bolt her arguments, and Virtue has no tongue to check her pride." Of course, you can switch off; but what a lame and impotent conclusion—you haven't shut the fellow up. You have only shut him out. You have deported him from your own set, but he is still at large working his nefarious will on other listeners-in. It's no use writing to 3LO or 3AR or 2FC or whoever he has hoodwinked into lending him their broadcasting ears. Your letter doesn't reach the great public, while his lecture has, and so the fool remains unanswered according to his folly.

A Smoke Concert

A social evening was held by the Amalgamated Wireless A'sia) Ltd., in the form of a smoke concert, at Sargent's Burlington Cafe on Nov. 20.

Representatives of the Engineering, Sales, Radio-Electric Works, Accounts Department, Coastal Radio Service, Marine Staff and Stores were present.

A number of toasts were honoured, among them that of Mr. Fisk, who is at present in England on the company's business.

Mr. Hooke, Assistant Manager, spoke briefly of the vast progress that has been made by the company in the space of the last few years, and stated that with the completion of the beam stations now in course of erection the company would enter into a new era of activity, for it must be remembered that the operation of trans-ocean communication was one of the main objectives of the company's formation. At the present time no fewer than twenty of the company's staff were in England gaining experience with the operation of automatic high speed wireless telegraphy apparatus. It was stated that from reports to hand our Australian operators had excellent groundwork for the acquisition and practice of this type of work, and that in a very short time they would be as proficient as those who have been working on the system for some years.

Mr. Hooke stated that a loyal staff intent on co-operation and team work was of inestimable value

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SET THE **WE** STANDARD

150 American stations logged by Tasmanian amateur using Weco valves

EXTRACT from a letter dated April 21, 1925, sent to Western Electric Coy. Ltd., London, by Mr. W. A. Smith, 37 Cascade Road, Hobart.

"I am writing to you for the purpose of bringing before your notice some very interesting experiences I have had with a couple of your Weco valves (white spots).

I purchased these two little valves about six months ago to build a portable low loss receiver. This consisted of detector and one-step audio frequency amplification, and I received all Australian and New Zealand experimenters working below 100 metres at loud speaker strength on a small loud speaker. Also, with phones, about 150 American Amateur Stations have been logged (between 70 and 90 metres).

American Broadcasting Station K.D.K.A. 63 metres quite a fair strength on small speaker. This set has been worked under all conditions. On the top of Mt. Wellington, 1466 ft. above sea level, these valves gave us some very fine results, Australian and American stations being received again, three pairs of phones being used. While on the mountain a heavy fog or mist came over and not having any cover for ourselves or the set, we decided to continue experiments and note the effect moisture had on signal strength, the set, etc. Well, signal strength dropped considerably, but the valves oscillated freely while the induction coils were quite wet. I think, sir, this is quite a severe test and speaks highly for the Weco.

Another test is that of robustness and after trying hard I am satisfied that these little tubes are very nigh unbreakable. On one occasion I placed them in my coat pocket and a little later forgetting they were in my coat took the coat out and shook it well. Remembering valves were in the pocket I at once tested them and found them to be quite undamaged.

On another occasion a friend of mine was helping me test some transmitting circuits and chokes and in rushing along the test bench to reach the ammeter knocked the set containing these doomed valves on to the floor, a drop of 3 ft. 6 ins. Well a few remarks passed between us and my friend offered to stand the expense. 'Anyway,' I said 'we'll test them in case one is alright.' 'Not worth your while,' replied my friend. However, I tested them and found them both to be O.K. to my great surprise, and I think this wonderful for valves and it speaks well for the makers."



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WE

to the management, and in this regard he had nothing but praise for those at present responsible for the carrying out of many details connected with the company's varied activities. Although the company had many difficulties to contend with, many of them outside its control, it was a pleasure to be able to record that the majority of these had been surmounted, and that the dawn of a brighter day was at hand, for with the opening of the beam stations

in Australia, England, and Canada there should ensue an era of prosperity for the company, in which the members of the staff would share. From the national point of view there will be inaugurated a system of wireless communication which will place Australia among the foremost countries in regard to this modern, speedy, and efficient means of communication.

Mr. McDonald spoke generally of the work being carried out by the engineering staff, while Mr. S. Grime stated that from his investigation into engineering works and products while in Europe he considered that the apparatus being produced by the company to-day was in every way equal to, and in many respects superior to, overseas wireless apparatus.

The evening's musical programme was fairly extensive, and to cope with the quantity of high-grade talent offering speed was the order of the night. The musical honours were shared by Messrs. W. Wing, P. Manly, E. A. Horner, R. S. F. Slattery, and R. A. Pepe. Mr. H. Tuson proved to be an experienced accompanist, while Mr. E. A. Burbury surprised everyone by his renditions on the flute. Mr. Grime gave the evening a jazz effect by his operation of a mandolin banjo. So strenuous were his efforts that by midnight he had broken all the strings and had to retire. Mr. McIntyre's dramatic recitations and the duets by Messrs. Wing and Manly were alone worth the price of the tickets.

You can have "Wireless Weekly" mailed direct to your home for twelve months for 13/-.

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A REPORT from KOSCIUSKO

To Messrs David Jones, Ltd.
George Street,
SYDNEY.

Dear Sirs,

I would like to congratulate you on the success of the "Wireless Set" supplied by you to the Hotel Kosciusko.

Kosciusko, as is well known, is a difficult location for good wireless results. From what I have seen of your set however, the reception, the entire absence of foreign noise and the volume, are far beyond any expectations I may have had. The following Stations we brought in—5CL; 2FC; 3LO and 2BL. 4QC was also brought in by Mr. Cooke, but as I was not at Kosciusko at the time I cannot give my personal opinion about the reception.

Any results other than those stated will be communicated to you if thought of sufficient interest.

P. Speet, P.M.
Manager,
Hotel Kosciusko.

DAVID JONES'

Broadcasting



4QG

QUEENSLAND RADIO SERVICE.

Wavelength, 385 metres.

FRIDAY, DECEMBER 4.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Afternoon Session: 2.55—"Tune-in" Signal. 3—By courtesy of the directors of Haymarket Theatres Ltd., an hour's programme of music played by the Tivoli Operatic Orchestra of 20 performers, under the baton of Mr. C. Groves, will be relayed from the Tivoli Theatre and broadcast by Station 4QG. 4—Close down.

Night Session: 7.55—"Tune-in" to the Tivoli Theatre. 8—Hawaiian selection, "Sweet Luana," the Pacific Trio, Messrs. I. Gall (Hawaiian guitar), I. Gillies (ukelele), R. Reeve (Spanish guitar); tenor solo, "At Dawning" (Cadman), Mr. Hugh Herald; soprano solo, "The Prayer" from "La Tosca" (Puccini), Miss Ivy Plane; pianoforte solo, selected, Mrs. H. Woolmer; baritone solo, "My Old Shako" (Trotter), Mr. Harold Nelson; Hawaiian selection, "Honolulu March," the Pacific Trio; tenor solo, "A Dream" (Bartlett), Mr. Hugh Herald; soprano solo, "A fat lil' feller wid his Mammy's eyes" (Gordon), Miss Ivy Plane; violin solo, "Madrigale" (Drdla), Mr. H. Scott MacCallum; baritone solo, "In a Monastery Garden" (Kotelbey), Mr. Harold Nelson; Hawaiian selection, "Palakike Blues," the Pacific Trio; cricket talk, a description of to-day's play in the Queensland v. New Zealand match by Mr. Roger Hartigan (Q.C.A. Board of Control). Dance Session: A dance session of an hour and a half. Music by the Elite Dance Orchestra, under the leadership of Mr. T. F. Kendall. Vocal numbers between dances by 4QG artists. 8.45—One steps, (a) "Me and the Boy Friend" (Monaco), (b) "My Best Girl" (Donaldson); soprano solo, "I Wonder if Love is a Dream" (Foster), Miss Millicent Baker; vales, (a) "Adoration" (Frank Magine), (b) "Neath the Mellow Moon" (Tom Johnson); baritone solo, "Son of Mine" (Wallace), Mr. A. N. Falk; fox trots, (a) "On the Way to Monterey" (Neil Moret), (b) "Let it Rain, Let it Pour" (Walter Donaldson); soprano

solo, "June Music" (Trent), Miss Millicent Baker; vales, (a) "Sad Hawaiian Sea" (Lee S. Roberts), (b) "Rain or Shine, Pal of Mine" (Charles Borrelli); baritone solo, "To-morrow," Mr. A. N. Falk; fox trots, (a) "Sweet Little You" (Irving M. Bibb), (b) "Did Tosti Raise his Bowler Hat" (Billy Mayrl and Geo. Paul; fox trots, (a) "What do you do Sunday, Mary" (Stephen Jones), (b) "When I Think of You" (Vincent Rose); one steps, (a) "California, Here I Come" (Al Jolson, Bud de Silva, Joseph Mayer), (b) "Africa" (Henry Creamer and James F. Hanley); vales, (a) "What'll I Do" (Irving Berlin), (b) "All Alone" (Irving Berlin). 10.30—"The Daily Mail" news service. Close down.

SATURDAY, DECEMBER 5.

No midday or afternoon transmission.

The Children's Hour: A children's bedtime story session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while transmission is being effected under temporary conditions, it is held three times weekly. 6.25—"Tune-in" Signal. 6.30—The Children's Hour. Nursery rhymes and music. Bedtime stories by "The Sandman." 7.15—Close down.

Night Session: 8—"Tune-in" to the Tivoli Theatre. 8.5—Soprano solo, "Love's Old Sweet Song" (Molloy, Miss Winifred Anderson; cricket talk, a description of to-day's play in to-day's Queensland v. New Zealand match by Mr. Roger Hartigan (Q.C.A. Board of Control); baritone solo, "Mate o' Mine" (Elliott), Mr. J. Morgan; aeolian vocalian selections, orchestral numbers, "William Tell" Overture, Parts I and II. (Rossini), played by the band of His Majesty's 1st Life Guards; soprano solo, "If I might only come to you" (Weatherby), Mrs. Leslie Morris; Duo Art Pianola selection "At the end of the Road" (Hanley); bass solos, (a) "Nirvana" (Adams), (b) Prologue from "I Pagliacci" (Leoncavallo); soprano solo "Dream Boat" (Novello), Mrs. L. Morris; aeolian vocalian selections, fox trots, (a) "Oh, Karharina" (Fall), (b) "We're back together again" (Clair); baritone solo, "The Longshoreman" (Chisham), Mr. J. Morgan; tenor solos, (a) "I'll sing thee songs of Araby" (Clay), (b) "Fairings" (Morton), Mr. E. Ungerer; soprano solo, "There's a Land" (Allitson), Miss Winifred Anderson. 9—From Lennon's Hotel: By courtesy of the proprietors of Lennon's Hotel, an hour and a half's jazz music played by Miss May Dobbyn's Vice-Regal Or-

BURGESS—"THEY'RE ON THE SPEEJACK'S"—BATTERIES

chestra will be relayed and broadcast by Station 4QG. 10.30—From the Studio: "The Sunday Mail" news service. Close down.

SUNDAY, DECEMBER 6.

Morning Session: The complete morning service at the City Tabernacle will be broadcast. 10.45—Organ, "Prayer and Cradle Song" (Guilmont), Mr. Sydney May, L.T.C.L., A.R.C.O. 11—First verse, "When morning gilds the skies"; Invocation and Lord's Prayer; Hymn, "It came upon the midnight clear"; Scripture, Isaiah 40, 1-11; Prayer of Worship; Hymn, "Jesus, the very thought of Thee"; Children's Nature Parable, "The Caterpillar's Surprise"; Announcements and Offering; Anthem (from "Messiah"), recitative "Comfort ye, My people," aria "Every valley shall be exalted," chorus "And the glory of the Lord shall be revealed"; Sermon, "Remember Me," by the Rev. W. G. Pope; Hymn, "Bread of the world in mercy broken"; Benediction; Sevenfold Amen; Organ. Close down.

Afternoon Session: The band concert in the Botanical Gardens, Brisbane, will be broadcast by Station 4QG. 3.10—"Tune-in" Signal. 3.15—Band concert. 4.30—Close down.

Night Session: The complete evening service from the City Tabernacle will be broadcast. 7—Organ, (a) "Cathedral Music" (Wareing), (b) Andantino" (Lemaire), Mr. Sydney May, L.T.C.L., A.R.C.O. 7.10—Children's Worship: Hymn, "There is a Happy Land"; Brief Prayer; a Nature Parable, "A Dragon Fly's Deputation"; Hymn, "Hushed was the Evening Hymn"; Good-night Prayer. 7.30—Organ, "Prayer" (Enrico Bossi), Mr. Sydney May; Hymn, "Beneath the Cross of Jesus"; Scripture, Isaiah 53; Prayer and Lord's Prayer; Hymn, "Earth was waiting, spent and restless"; Announcements and Offering; Anthem (from "Messiah"), recitative "Thus saith the Lord of Hosts," aria "But who may abide the day of His coming," recitative "Behold, a Virgin shall conceive," chorus "O Thou that tellest good tidings"; Sermon, "God's Most Surprising Command," by Rev. W. G. Pope; Hymn, "Lord, I was blind, I could not see in Thy marred visage any grace"; Benediction; Vesper, "If some poor wandering child"; Organ, Postlude, "Toccatina" (Dubois). Special "Radio News" Concert. 8.30—From the studio of Erich John: In order to meet numerous requests, the "Queensland Radio News"—Erich John programme which was provided in the studio of Erich John on November 6th will be repeated and will be relayed by 4QG. Part I.—Operatic. 8.—From the studio of Mr. Erich John: Vocal quartette, "Hymn of the Fishermen's Children" from "Zampa" (Herold), "Queensland Radio News" Vocalists; vocal, Prologue from "I Pagliacci" (Leoncavallo), Mr. Fred Homer, baritone; pianoforte solo, "Rigoletto" Fantasia" (Verdi-Liszt), Mrs. Rees Morgan; aria, "Flown Forever" from "Marriage of Figaro" (Mozart), Miss Verna Morecom, soprano; instrumental quartette, "Ballet Music" from "Rosamunde" (Schubert), "Radio News" Instrumental Quartette; aria, "M'appri tutti amore" from "Martha" (Flotow), Mr. Jack Lord, tenor; cello solo, "Star of Eve" from "Tannhauser" (Wagner), Miss May Rose; vocal duet, Miserere Scene from "Il Trovatore" (Verdi), Miss Mildred Bell, contralto, and Fred Homer, baritone; violin solo, "Walter's Prize Song" from "Meister-

singers" (Wagner), Mr. Alfred Bartlett; vocal quartette, "Chorale of the Cross" from "Faust," (Gounod), "Queensland Radio News" Vocalists. Interval. Part II.—Popular. Vocal quartette, "Sweet and Low" (Barnby), "Queensland Radio News" Vocalists; instrumental quartette, "Hungarian Dance No. 5" (Brahms), "Radio News" Instrumental Quartette; contralto solo, "Seguillie" from "Carmen" (Bizet), Miss Mildred Bell; vocal quartette, "The Owl and the Pussy Cat" (De Koven), "Radio News" Vocalists; pianoforte solo, "Valse Caprice" (Rubenstein), Mr. Erich John; vocal duet, "Barcarolle" from "Tales of Hoffman" (Offenbach), Miss Verna Morecom and Mr. Fred Homer; flute solo, "The Nightingale" (Donjon), Mr. B. R. Brock; vocal quartette, "Way down yonder in the Cornfield," plantation song, "Radio News" Vocalists; instrumental quartette, "March Militaire" (Schubert), "Radio News" Instrumental Quartette. 10—From the studio of 4QG: "The Daily Mail" news service. Close down.

MONDAY, DECEMBER 7.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Afternoon Session: 2.55—"Tune-in" Signal. 3—By courtesy of the directors of Haymarket Theatres Ltd., an hour's programme of music played by the Tivoli Operatic Orchestra of 20 performers, under the baton of Mr. C. Groves, will be relayed from the Tivoli Theatre. 4—Close down.

The Children's Hour: A special children's bedtime story session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while transmission is being effected under temporary conditions, it will be held three times weekly. 6.25—"Tune-in" Signal. The Children's Hour: Nursery rhymes and music; bedtime stories by "The Sandman." 7.15—Close down.

Night Session: 8—"Tune-in" to the Tivoli Theatre. 8.5—From the Studio: Male quartette, "The Church in the Wildwood" (Dr. Pitts), the Roundelay Party; bass solo, "Shipmates o' Mine" (Sanderson, Mr. R. Moores; duet, "Go, Pretty Rose" (Marziels), Messrs. Edwards and Gardiner; tenor solo, "Calling Me Home to You" (Dorel), Mr. A. Gardiner; male quartette, "The Soldier's Farewell" (Kinkle), the Roundelay Party; pianoforte solo, "Nocturne" (York Bowen), Miss Rae Phillips; cricket talk, a description of to-day's play in the Queensland v. New Zealand match by Mr. Roger Hartigan (Q.C.A. Board of Control); tenor solo, "Love, Could I Only Tell Thee" (Capel), Signor Corti; pianoforte solo, "Water Wagtail" (Cyril Scott), Miss Rae Phillips; tenor solo, "The Drum Major" (Newton), Signor Corti. 8.55—Announcements. Special Septette Party. 9—The second portion of the programme will consist of numbers by the Federal Band's special radio septette party. This septette has been organised for Station 4QG by Mr. W. H. Davies, leader of the Federal Band. March, "Gardes Du Corps" (Hall); danse, "Mimi" (Pitt); suite, "Rosida" (Huff); selection, "Strad-

ella" (Flotow); fox trot, "Show Me the Way Home" (Finlay); march, "The New Corn Palace" (King). 10—"The Daily Mail" news service. Close down.

TUESDAY, DECEMBER 8.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Night Session: 8—"Tune-in" to the Tivoli Theatre. 8.5—From the Studio: Lecturette, "Photography," the tenth of a series by Mr. F. L. South, manager Kodaks Ltd.; baritone solo, "Mountains o' Mourne" (Collison), Mr. R. Best; instrumental number, selections from "Gypsy Love" (Lehar), the Studio Trio; contralto solo, "My Heart is Weary" (G. Thomas), Miss Nance Smith; pianoforte solo, "Polonaise in A Major" (Chopin), Mr. Arthur Sharman; tenor solo, selected, Mr. Stephen Best vocal duet, "The Voyagers," Mr. R. Best and Miss Nance Smith. 8.45—From the Tivoli Theatre: By courtesy of the directors of the Haymarket Theatres Ltd., a quarter of an hour's music by the Tivoli Operatic Orchestra, under the baton of Mr. C. Groves, will be broadcast. 9—From the Studio: Announcements. 9.5—Contralto solos, (a) "Love's Coronation" (Alyward), (b) "Moonlight and Roses" (Lemare), Miss Winifred Anderson; violin solo, "To a Wild Rose" (McDowell), Mr. Scott MacCallum; soprano solos, (a) "Land of the Long Ago" (Ray), (b) "Waltz Song" from "Tom Jones" (Ed. German), Miss Olga Harris; cello solo, "An Old Italian Love Song" (Squire), Miss Petropoulos; baritone solo, "The Young Royalist" (Adams), Mr. Reg. Best; aeolian vocal selection, by request, musical novelty, "In a Clock Store"; contralto solo, "Homing" (Del Riego), Miss Nance Smith; tenor solo, selected, Mr. Stephen Best. 9.30—From the Tivoli Theatre: 20 minutes' music by the Tivoli Operatic Orchestra. 9.50—From the Studio: "The Daily Mail" news service. Close down.

WEDNESDAY, DECEMBER 9.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Afternoon Session: 2.55—"Tune-in" Signal. 3—By courtesy of the directors of Haymarket Theatres Ltd., an hour's programme of music played by the Tivoli Operatic Orchestra of 20 performers, under the baton of Mr. C. Groves, will be relayed from the Tivoli Theatre. 4—Close down.

The Children's Hour: A special children's bedtime story session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while transmission is being effected under temporary conditions, it will be held three times weekly. 6.25—"Tune-in" Signal. The Children's Hour: Nursery rhymes and music; bedtime stories by "The Sandman." 7.15—Close down.

Night Session: 8—"Tune-in" to the Tivoli Theatre. 8.5—From the Studio: Hawaiian Duo in selected numbers, Messrs. Bleeck and Gardiner; contralto solo, "Crossing the Bar" (Willeby), Miss Hilda Cooper; group of banjo numbers by Mr. W. G. McGrath; lecturette, the first of a series of four, "Organised Distribution of Farm Products," Mr. R. Wight; soprano solo, "Life has Sent Me Many Roses" (Lohr), Miss Winnie Dunoon; instrumental number, "Dainty Daffodils" (Miles), the Studio Trio; tenor solo, "Lolita" (Peccia), Mr. Wm. Ashlin; Duo Art Pianola selection, "Pierrot and Pierrette"; contralto solo, "Deep in My Heart" (Lambert), Miss Clarice Cox; Aeolian Vocalian selection, band number. 8.55—Announcements. 9—Hawaiian Duo, Messrs. Bleeck and Gardiner; contralto solo, "O that We Two were Maying" (Nevin), Miss Hilda Cooper; tenor solo, "Ab si Ben Mio Coll" (Verdi), Mr. Wm. Ashlin; Hawaiian Duo, Messrs. Bleeck and Gardiner; contralto solo, "When the Swallows Homeward Fly" (White), Miss Clarice Cox; group of banjo numbers by Mr. W. G. McGrath; bass solos, (a) "Come to the Fair" (Martin), (b) "Clothes Props" (Hamblen), Norman A. Cooling; instrumental number, "Fancies" (Cobb), the Studio Trio; soprano solo, "When Love Comes Singing" (Brewer), Miss Winnie Dunoon; Duo Art Pianola selection, "Marcheta" (Scherzinger). 9.50—"The Daily Mail" news service. Close down.

THURSDAY, DECEMBER 10.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Night Session: 8—"Tune-in" to the Tivoli Theatre. 8.5—From the Studio: Tenor solo, "Two Eyes of Grey" (McGeogh), Mr. Ernest Bayton; bookman's radiette, "A Talk on Literature," Mr. W. A. Braidon (McLeod's Bookstall); baritone solo, "For You Alone" (Goehl), Mr. Gerald Cashman; instrumental number, waltz, "If" (Peter), the Studio Trio; soprano solo, "Abide With Me" (Liddle), Mrs. R. G. Allen. 8.30—Radio speciality: Half an hour's vocal and instrumental music, a pot-pourri of melody and mirth, Raymond and Bett. 9—Announcements. 9.5—Tenor solo, "Trooper Johnny Ludlow" (Temple), Mr. Ernest Bayton; instrumental number, waltz song, "First Love," the Studio Trio; baritone solo, "Comrade of Mine" (Thomas), Mr. Gerald Cashman; Aeolian Vocalian selections, cello solos, (a) "Drink to me only" (Squire), (b) "La Srenade" (Schubert), Mr. C. Warwick Evans; soprano solo, "Spring" (Tosti), Mrs. E. G. Allen. 9.15—From the Centennial Hall: By courtesy of the lessee of the Centennial Hall, Adelaide Street, Brisbane, three-quarters of an hour's dance music by the Centennial Orchestra will be relayed from the hall. 10—From the Studio: "The Daily Mail" news service. Close down.

Programme continued on page 38

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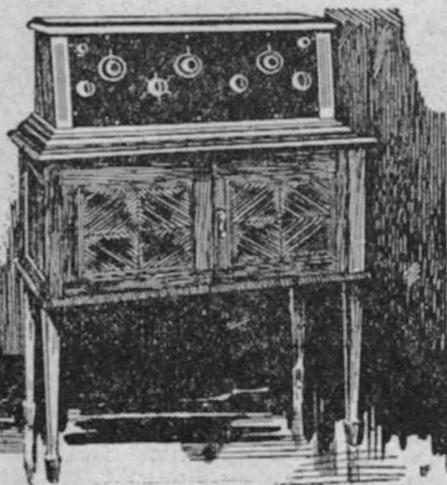
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Programme Continued from page 35

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FRIDAY, DECEMBER 4.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes from "The Sun." 3.15—Music from the Studio. 3.30—G.P.O. Clock and Chimes. A Talk on "Modern Psychology" by Mr. J. M. Prentice. 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes. Music from the Studio. 4.30—G.P.O. Clock and Chimes. Serial Story entitled "The Black Cat" by Louis Tracey. 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "Sun" News Service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes. Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers. The Pupils of Miss Monica Scully will entertain the Kiddies. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: Popular Concert from the Studio including Reg. Harrison, comedian, Eva Webb-Jones, soprano, Richard McClelland, Scottish basso, Dorne & Montfort, musical comedy duo. Round the World Travelogue by Mr. J. M. Prentice, O.C.B., C-de-G. During the evening Mr. R. C. Morgan will speak on "Motoring."

SATURDAY, DECEMBER 5.

Afternoon Session: 2—G.P.O. Clock and Chimes. Special Sporting News broadcast direct from "The Sun" office. Music from the Studio. 5.15—G.P.O. Clock and Chimes. Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes. Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers. Uncle George and the Kiddies. 7—A talk to the Kiddies by Brin-ga. 7.45—A talk on "Roads."

Evening Session: Miscellaneous programme from the Studio featuring: Phyllis Atkinson, mezzo soprano, Frank Lindsay, baritone, and other well-known vocalists. Dance music until midnight supplied by Dungowan Modern Dance Band, Manly, under the direction of Mr. C. J. Little. During the evening Mr. W. Fitzpatrick will speak on "Life at Sea" and Brin-ga will chat about the "Aborigines."

SUNDAY, DECEMBER 6th.

11—Service broadcast from First Church of Christ Scientist, Sydney. 3.30—Concert from the Studio. 7—Benediction Service from St. Frances Church. 8.30—From the Studio: Broadcasters' Miniature Orchestra, Leonore Gotsch, Coloratura Soprano.

MONDAY, DECEMBER 7.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes from "The Sun." 3.15—David Jones' Tea Room Trio. 3.30—G.P.O. Clock and Chimes. A talk on "A Course in English Literature" by Mr. J. M. Prentice. 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes; David Jones' Tea Room Trio. 4.15—Music from the Studio. 4.30—G.P.O. Clock and Chimes; Serial Story entitled "The Black Cat," by Louis Tracey. 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes; "Sun" news service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes; Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers; Uncle Jack and the Kiddies. 7.30—"What's On"—a guide to the visitors and citizens of Sydney. 7.45—Late stock, hides and market reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: Popular programme from the studio, including Margaret McKenzie, soprano; Stanley Catlett, tenor, and other well known vocalists. Ambassadors' Salon Quartet, under the direction of Mr. Claude McGlynn. During the evening, Mr. H. E. Crabb will speak on "Evolution, the Master-Key," Lecture 4, "New Worlds for Old," and Mr. C. H. Bertie, City Librarian, will chat on "Stories of Old Sydney."

TUESDAY, DECEMBER 8.

Afternoon Session: 3—G.P.O. Clock and Chimes; Weather report and social notes from "The Sun." 3.15—Music from the Studio. 3.30—G.P.O. Clock and Chimes; Special Operatic Session. 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes; Music from the Studio. 4.30—G.P.O. Clock and Chimes; Serial Story entitled "The Black Cat," Louis Tracey. 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes; "Sun" News Service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes; Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers; The Kiddies will be entertained by Uncle George, Uncle Mac, and Brother Hyam. 7.30—A talk on "School Sport" by Mr. Marks, Sportsmaster, Sydney Grammar School. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: Classical Concert from the Studio featuring Pauline Harford-Foster, soprano; Norman Janson, baritone. At 8.30 Mr. Leo. Buring will tell "The Story of Wine throughout History," and at 9.30 a lecture will be given by Mr. Algernon H. Lindo.

WEDNESDAY, DECEMBER 9

3—G.P.O. Clock and Chimes; Weather Report and Social Notes from "The Sun." 3.15—Music from the Studio. 3.30—G.P.O. Clock and Chimes; a talk on "The Musical Outlook," by Mr. J. M. Prentice. 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes; Music from the Studio. 4.30—G.P.O. Clock and Chimes; Serial story entitled "The Black Cat," by Louis Tracey. 4.45—Music from the Studio. 4.55—Late market reports from "The Sun." 5—G.P.O. Clock and Chimes; "Sun" News Service." 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes; Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison; 6.30—Sporting Resume from "Sun" Newspapers; Uncle George and Uncle Jack and the Kiddies. 7.45—Late stock, hides, and market reports, by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: Popular concert from the Studio, featuring Mrs. Hugh J. Ward, soprano, and other well known vocalists.

THURSDAY, DECEMBER 10.

Afternoon Session: 3—G.P.O. Clock and Chimes; Weather Report and Social Notes from "The Sun." 3.15—David Jones' Tea Room Trio.

BURGESS—"POWER, HARMONY, ENDURANCE"—BATTERIES

3.30—G.P.O. Clock and Chimes; A talk on "Studies in English Poetry" by Mr. J. M. Prentice. 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes; David Jones' Tea Room Trio. 4.15—Music from the Studio. 4.30—G.P.O. Clock and Chimes; Serial Story entitled "The Black Cat" by Louis Tracey. 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes; "Sun" News Service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes; Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers; Uncle Jack and the Kiddies. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session; Classical Concert from the Studio featuring Mr. W. E. Lewis and Miss Dorrie Ward, in solos and duets; Alice Prowse, contralto. During the evening Mr. T. Alkin will speak on "Care of the Teeth" and Mr. Norman Campbell in "Plays and Players."

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SATURDAY, DECEMBER 5.

Morning Session (11 a.m. to 2 p.m.): 11—Time Signal. Express Train information. 11.3—Musical items by the Buckley and Nunn Studio Orchestra. 12—Time Signal. 12.2—Buckley and Nunn Studio Orchestra. 12.30—"Argus" and "Herald" news services. Reuter's and the Australian Press Association cables. 12.45—Buckley and Nunn Studio Orchestra. 1—Time Signal. 1.2—Result of the first race from the V.R.C. Meeting at Flemington. 1.5—Buckley and Nunn Studio Orchestra. 1.40—Result of the second race at Flemington. 1.45—"Herald" and "Argus" news services. Stock Exchange information. Weather forecast. River reports. 2—Close down. 2.30—Result of the third race from the V.R.C. Meeting at Flemington.

Afternoon Session (3 to 5.15 p.m.): 3—Time Signal. 3.1—Musical items from the Studio. 3.15—Result of the fourth race from Flemington. 3.20—Musical items from the Studio. 3.55—Result of the fifth race from Flemington. 4—Musical items from the Studio. 4.35—Result of the last race from Flemington. 5—All the sporting results. Reuter's and the Australian Press Association cables. Progress results of all sporting events will be given throughout the afternoon as they come to hand, and the resume will be given at each hour.

Evening Session (5.45 to 7.15 p.m.): 5.45—All sporting results, local, country, and interstate. 6—Children's Hour. "Billy Bunny" stories by Miss Gumleaf. For the little ones, short poem, "Growing Up and Seeing Santa Claus." For the girls, "The Princess and the Frog." For boys, "Knights of the Round Table." 6.45—Sporting results. "Herald" and "Argus" news services. Reuter's and the Australian Press Association cables. Market reports. Closing Stock Exchange information. Shipping movements. Weather synopsis. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Grain,

chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.15 to 11 p.m.): Speakers—Mr. R. Rawson, Mr. Frederick Chapman, A.L.S., Dr. J. A. Leach. Miss Agnes Fortune, pianiste. The Musical Society of Victoria's 345th Chamber Concert. The Tivoli Four. 7.15—Mr. R. Rawson, "Recent Happenings in Esperanto Land." 7.30—Mr. Frederick Chapman, A.L.S., "New Light on Old Birds." 7.40—Dr. J. A. Leach, "Finches and Weaver-Finches." 8—345th Chamber Concert of the Musical Society of Victoria, transmitted from the Assembly Hall. Sonata for Violin in G minor (Tartini), 1 Andante, 2 Presto non troppo, 3 Largo, 4 Allegro, Gertrude Carruthers. Songs, (a) "A Legend" (Tschaiakowsky), (b) "Ichabod" (Tschaiakowsky), (c) "'Twas April" (Tschaiakowsky), (d) "My Garden" (Tschaiakowsky), Emily Stevenson. Songs, (a) "Romans" (Emil Sjorgren), (b) "Serenad" (Emil Sjorgren), (c) "Bergmanden"—"The Miner" (Emil Sjorgren), Alexander Raff. Piano, "Carnival," Op. 9 (Schumann), 1 "Preamble," 2 "Pierrot," 3 "Arlequin," 4 "Valse Noble," 5 "Eusebius," 6 "Florestan," 7 "Coquette," 8 "Replique," 9 "Pillions," 10 "A.S.C.H.—S.C.H.A." (Lettres dansantes), 11 "Chiarina," 12 "Chopin," 13 "Estrella," 14 "Reconnaissance," 15 "Pantalon et Columbine," 16 (a) "Valse Allemande," (b) "Paganini," 17 "Avau," 18 "Promenade," 19 "Marche des Davidsbundler," Katie Liddle. Songs, (a) "Sing, Sing, Nightingale" (Kjerulf), (b) "Afar in the Wood" (Kjerulf), (c) "Synnove's Song" (Kjerulf), (d) "Spring Song" (Kjerulf), (e) "O Praise Me Not" (Coleridge Taylor), Maud M. Cromb. Quartet for Strings, Op. 95, in F minor (Beethoven), 1 Allegro con brio, 2 Allegretto ma non troppo, 3 Allegro assai vivace ma serioso, 4 Larghetto leading into Allegretto agitato, the British Music Society's Quartet, Alberto Zelman, Bertha Jorgensen, Dorothy Roxburgh, Tasma Tiernan, accompanists—Mrs. Raff, W. C. Fyshe, Doris Hawker.

SUNDAY, DECEMBER 6.

Morning Session (11 a.m. to 12.15 p.m.): 11—Service from the Wesley Church Central Mission, conducted by Rev. J. H. Cain. Doxology; Brief Invocation; Hymn, "Our Blest Redeemer ere He breathed"; Prayer; Hymn, "Sometimes a light surprises"; Solo, Mr. Ben Moy Ling; Scripture Reading, Psalm 27; Anthem, Choir, organist—Mr. William James; Notices and Offering; Children's Hymn, "Jesus is our Shepherd"; Sermon, Rev. J. H. Cain; Hymn, "Like a river glorious"; Benediction.

Afternoon Session (3 to 4.30 p.m.): 3—Service from the Wesley Church, Central Mission, Pleasant Sunday Afternoon Service; chairman, Rev. J. H. Cain. Orchestral Selection, conductor—Mr. G. M. Williams; Hymn, "All people that on earth do dwell"; Prayer, Rev. J. H. Cain; Hymn, "Hail to the Lord's anointed"; Solo, Mr. J. A. Brady, "Comfort ye" and "Every valley" (Handel); Orchestral Selection; Solo, Mr. J. A. Brady, "I hear a thrush at eve"; Announcements and Collection; Orchestral Selection; Address, Hon. Samuel Manger, "Is the Present Civilisation Doomed?"; National Anthem; Benediction; Orchestral Selection.

Evening Session (6 to 6.45 p.m.): 6—Children's Hour. "Billy Bunny" stories, "Pilgrim's Progress." 6.45—Close down.

(Programme Continued on Page 42)



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Programme continued from page 39

Night Session (7 to 10 p.m.): Evening Service from Scots' Church, conducted by Rev. W. Borland, M.A., B.D.; organist and musical director, Mr. Mansley Greer. 7—Hymn 113, "Thou art coming, O my Saviour"; Prayer; Psalm (Metrical) 102, verses 13 to 23, "Thou shalt arise"; Old Testament Lesson, Isaiah 5/1-16; Prose Psalm 33; Prayer of Intercession; New Testament Lesson, St. Luke 3: 1/14; Anthem; the Lord's Prayer; Sermon, "Strange Repentances"; Hymn 201, "How sweet the name of Jesus sounds"; Intimations and Offering; Hymn 207, "O Love that will not let me go"; Benediction; Sevenfold Amen. From the Studio: Speaker—Mr. J. Howlett Ross. The British Musical Society's Quartet, Alberto Zelman, Dorothy Roxburgh, Tasma Tiernan, Bertha Jorgenson. Mr. I. Squirrell, of "The Street Singer." Mr. Harold Rodgers, pianist and accompanist. 8.30—Mr. Harold Rodgers, pianoforte soli, "Soliloquy" (J. Ireland), "Musical Box" (Poussinoff), "The Sea" (Palmgren). 8.40—Mr. I. Squirrell, baritone, of "The Street Singer" (by permission of J. C. Williamson Ltd.), "Now I Know" (Warren), "Wondering Why" (Clarke). 8.47—The British Musical Society's Quartet, "Quartet in G major, Op. 18, No. 2" (Beethoven), 1 Allegro, 2 Adagio Cantabile, 3 Allegro, 4 Allegro Molto quasi presto. 9.7—Mr. J. Howlett Ross, "Famous Australians—Edward Braddon and 'The Blot.'" 9.27—Mr. I. Squirrell, baritone, "To You, Dear" (Braham), "Lorraine" (Sanderson). 9.34—The British Musical Society's Quartet, "Three Novelletten" (Frank Bridge), 1 in E flat major, Andante Moderato, 2 in B flat major, Presto, 3 in E flat major, Allegro Vivo, "Irish Melody—Londonderry Air" (F. Bridge), in D major, Allegro Moderato. 9.54—"Argus" and "Herald" news services. 10—"God Save the King."

MONDAY, DECEMBER 7.

Morning Session (11 a.m. to 2 p.m.): 11—Time Signal. Express Train information. 11.3—Musical items by the Buckley and Nunn Studio Orchestra. 12—Time Signal. 12.2—Buckley and Nunn Studio Orchestra. 12.30—"Argus" and "Herald" news services. Renter's and the Australian Press Association cables. 12.45—Buckley and Nunn Studio Orchestra. 1—Time Signal. 1.2—Buckley and Nunn Studio Orchestra. 1.45—"Herald" and "Argus" news services. Stock Exchange information. Weather forecast. River reports. 2—Close down. The results of the Fitzroy pony races will be given immediately at the conclusion of each race.

Afternoon Session (3 to 5.15 p.m.): 3—Time Signal. 3.2—Musical items by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco. 3.40—Matron Moreland on "Infant Welfare." 3.55—Musical items by the Paramount Theatre Orchestra. 5—"Herald" and "Argus" news services. Renter's and the Australian Press Association cables. 5.15—Close down. The results of the Fitzroy pony races will be given immediately at the conclusion of each race, and all results repeated at the hours 4 and 5 p.m.

Evening Session (6 to 7.15 p.m.): 6—Children's Hour. "Billy Bunny" stories, "Nursery Rhymes," "The Enchanted Forest," "Houses of the Eagle." 6.45—"Herald" and "Argus" news services. Renter's and the Australian Press Association cables.

Market reports. Weather synopsis. Closing Stock Exchange information. Shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sales, poultry, grain, chaff, hay, straw, jute, dairy produce potatoes and onions.

Night Session (7.15 to 11 p.m.): Speakers—Dr. J. W. Sinclair Mr. T. P. Court, Mr. J. Boyce, Sir W. McBeath, K.B.E. Melbourne Philharmonic Society in "The Creation," by Haydn. The Studio Instrumental Trio. 7.15—Under the auspices of the Town Planning Association, Dr. J. W. Sinclair, Health Officer, City of Melbourne, "Playgrounds in England." 7.30—Mr. T. P. Court, Technical Adviser to "The Listener-In." "Weekly Wireless—Regenerative and Reflex." 7.45—Mr. J. Boyce, Government Tourist Officer. 8—Transmitted from the Auditorium, "The Creation" (Haydn), by the Melbourne Philharmonic Society, conductor—Alberto Zelman. First Part. Orchestral introduction, representation of chaos; recit. and chorus, "In the beginning God created the heaven and the earth"; air, tenor, Mr. Edwin Hooke, "Now vanish before the holy"; chorus, "Despairing, cursing rage"; recit., bass, Mr. A. Raff, "And God made the firmament"; soprano solo and chorus, Miss Violet Jackson, "The marvellous work"; recit., bass Mr. A. Raff, "And God said: Let the waters"; air, bass, Mr. A. Raff, "Rolling in foaming billows"; recit., soprano, Miss V. Jackson, "And God said: Let the earth"; air, soprano, Miss V. Jackson, "With verdure clad"; recit., tenor, Mr. Edwin Hooke, "And the heavenly host"; chorus, "Awake the harp"; recit., tenor, Mr. Edwin Hooke, "And God said: Let there be light in the firmament of heaven"; recit., tenor, Mr. Edwin Hooke, "In splendour bright"; chorus, "The heavens are telling." During the interval, Sir W. McBeath, K.B.E., will speak from the studio on "The State Savings Bank and its Activities." Second Part. Recit., soprano, Miss V. Jackson, "And God said: Let the waters"; air, soprano, Miss V. Jackson, "On mighty pens"; recit., bass, Mr. A. Raff, "And God created the whales"; recit., bass, Mr. A. Raff, "And the Angels struck their immortal harps"; terzetto, "Most beautiful appear"; trio and chorus, "The Lord is great"; recit., bass, Mr. A. Raff, "And God said: Let the earth"; recit., bass, Mr. A. Raff, "Straight opening her fertile"; air, bass, Mr. A. Raff, "Now heaven in fullest glory shone"; recit., tenor, Mr. Edwin Hooke, "And God created man"; air, tenor, Mr. Edwin Hooke, "In native worth"; recit., bass, Mr. A. Raff, "And God saw everything"; chorus, "Achieved is the glorious work"; trio, "On Thee each living soul awaits"; second chorus, "Achieved is the glorious work." Third Part. Introduction; recit., tenor, Mr. Edwin Hooke, "In rosy mantle appears"; duet, soprano and bass, Miss V. Jackson and Mr. A. Raff, and chorus, "By Thee with bliss"; recit., bass, Mr. A. Raff, "Our duty we have now performed"; duet, soprano and bass, Miss V. Jackson and Mr. A. Raff, "Graceful consort"; recit., tenor, Mr. Edwin Hooke, "Oh, happy pair"; chorus "Sing the Lord, ye voices all." 10.30—From the Studio: The Studio Instrumental Trio for Piano, Violin, and Cello, No. XXI. (Haydn, "Serenade" (Victor Herbert). 11—"God Save the King."

TUESDAY, DECEMBER 8.

Morning Session (11 a.m. to 2 p.m.): 11—Time

BURGESS—"THE CONSTANT SATISFACTION ASSURED"—BATTERIES

Signal. Express Train information. 11.3—Musical items by the Buckley and Nunn Studio Orchestra. 12—Time Signal. 12.2—Buckley and Nunn Studio Orchestra. 12.30—"Argus" and "Herald" news services. Reuter's and the Australian Press Association cables. 12.45—Buckley and Nunn Studio Orchestra. 1—Time Signal. 1.2—Buckley and Nunn Studio Orchestra. 1.45—"Herald" and "Argus" news services. Stock Exchange information. Weather forecast. River reports. 2—Close down.

Afternoon Session (3 to 5.15 p.m.): 3—Time Signal. 3.1—Musical items by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco. 3.40—"Au Fait," by Buckley and Nunn Ltd., in a fashion talk. 3.55—Paramount Theatre Orchestra. 4.50—Miss Flora Pell, Supervisor of Domestic Arts, Education Department, in a talk on "Domestic Economy." 5—"Herald" and "Argus" news services. Reuter's and the Australian Press Association cable news. 5.15—Close down.

Evening Session (6 to 7.15 p.m.): 6—Children's Hour. "Billy Bunny" stories by "Little Miss Kookaburra," who will tell an Uncle Remus story, "The Little Rabbits," and a story for the bigger boys and girls. 6.45—"Herald" and "Argus" news services. Reuter's and the Australian Press Association cable news. Market reports. Weather synopsis. Closing Stock Exchange information. Shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sheep sales, poultry, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.15 to 11 p.m.): Speakers—Mr. J. M. Ward, "A Country Banker," Mr. P. D. Phillips, M.A., D.D.B., Dr. Loftus Hills, D.Sc. Oriana Madrigal Society; conductor, W. C. Frazier, A.R.C.O. Mr. Norman Bennett, tenor; Miss Viola Morris, soprano; Mr. Roy Shepherd, pianist. Buckley and Nunn Studio Orchestra. 7.15—Under the auspices of New Settlers' League, "The Place of the Local Bank in District Development," by a Country Banker. 7.30—Mr. J. M. Ward, Supt. of Horticulture, Department of Agriculture, "Fruit Marketing and Organisation." 7.45—University Extension Lecture, Mr. P. D. Phillips, M.A., D.D.B., "Why Prices Rise and Fall." 8—The Oriana Madrigal Society's Concert transmitted from the Auditorium, Collins St. Old English Part Songs, (a) "Faustina hath the fairer face" (Cavendish), (b) "In these delightful pleasant groves" (Purcell), Oriana Madrigal Society. Song, "Have you seen but a white lily grow" (Old English), Mr. Norman Bennett. Songs, (a) "When to her lute Corrianna Sings" (T. Campian), (b) "My love hath vowed" (T. Campian), Miss Viola Morris. Madrigals, (a) "To former joy" (Cavendish), (b) "Singing alone" (Morley), (c) "As Vesta was from Latmos Hill" (Weelkes), Oriana Madrigal Society. Piano, "Chromatic Fantasy and Fugue," Mr. Roy Shepherd. From the Studio, during interval: Dr. Loftus Hills, D.Sc., "The Steel Age, Part IV., Australia's Steel Industry." From the Auditorium: Old Scottish air, "Alister McAlpine's Lament" (arr. V. Williams), Oriana Madrigal Society. Songs, (a) "The Call" (R. V. Williams), (b) "After Day" (Cyril Scott), Mr. Norman Bennett. Part Songs, (a) "O Little Snowflake" (Cyril Jenkins), (b) "A Cradle Song" (John Ireland), Oriana Madrigal Society. Piano, (a) "Si oiseau j'étais" (Henselt), (b) "Clair de Lune" (Debussy), (c) "Scherzo in

E flat minor" (Brahms), Mr. Roy Shepherd. Songs, (a) "Come not when I am dead" (J. Holbrooks), (b) "Life must be full of care" (O. Williams), (c) "The Girl's Song" (Howells), Miss Viola Morris. Folk Songs, (a) "The Springtime of the Year" (arr. R. V. Williams), (b) "Just as the Tide was Flowing" (arr. R. V. Williams), Oriana Madrigal Society. From the Studio: "Argus" and "Herald" news services. 10.30—Buckley and Nunn Studio Orchestra, "Grand American Fantasia" (Bendix). 'Cello Solo, Miss Tasma Tiernan, "Adagio Cantabile" (Beethoven). Buckley and Nunn Studio Orchestra, suite, "Ballet Egyptien" (Luigini); selection, "Moszkowskiana" (Moszkowski). 11—"God Save the King."

WEDNESDAY, DECEMBER 9.

Morning Session (11 a.m. to 2 p.m.): 11—Time Signal; Express Train Information. 11.2—Musical Items by the Buckley & Nunn Studio Orchestra. 12 noon—Time Signal. 12.2—Buckley & Nunn Studio Orchestra. 12.30—"Argus" and "Herald" News Services; Reuters and the Australian Press Association Cable News. 12.45—Buckley & Nunn Studio Orchestra. 1—Time Signal. 1.2—Buckley & Nunn Studio Orchestra. 1.45—"Herald" and "Argus" News Services; Weather Forecast; River Reports; Stock Exchange Information. 2—Close down. 2.15—Result of the 1st Race from the Kyneton Turf Club Meeting. 2.50—Result of the 2nd Race from the Kyneton Turf Club Meeting.

Afternoon Session (3 to 5.45): 3—Time Signal. 3.2—Musical Programme by the "Paramount" Theatre Orchestra, under the direction of Signor Vincent Ricco. 3.20—Result of the 3rd Race from the Kyneton Turf Club Meeting. 4.5—"Paramount" Theatre Orchestra. 4.30—Sister Peck, of the Victorian Baby Health Centres Association, on "Mothercraft." 4.43—Result of the 5th Race from the Kyneton Turf Club Meeting. 4.45—Choral Evensong, transmitted from St. Paul's Cathedral 5.30—"Herald" and "Argus" News Services; Sporting Results; Reuters and the Australian Press Association Cables. 5.45—Close down.

Evening Session (6 to 7.15): 6—Children's Hour. "Billy Bunny" Stories; Nursery Rhymes; The Enchanted Forest; Houses of the Eagle. 6.45—"Herald" and "Argus" News Services; Sporting Results; Reuters and the Australian Press Association Cable News; Market Reports; Weather Synopsis; Closing Stock Exchange Information; Shipping Movements. Market Reports: By the Victorian Producers' Co-operative Co. Ltd.: Newmarket Sales, Cattle, Pigs, Carcase meat, Grain, Chaff, Hay, Straw, Jute, Dairy Produce, Potatoes and Onions.

Night Session (7.15 to 11): An Alberto Zelman Concert; speakers: Mr. O. A. Mendelsohn, B.Sc., F.C.S., A.A.C.I., Mr. W. Robert, Captain C. H. Peters. The British Music Society's Quartet: Alberto Zelman, Bertha Jorgensen, Dorothy Roxburgh, and Tasma Tiernan, Mrs. Alberto Zelman, Accompaniments by Ada Freeman. Mus. Bac. 7.15—Mr. O. A. Mendelsohn, B.Sc., F.C.S., A.A.C.I., "Preserving and Canning Food—Why canned foods keep indefinitely" 7.30—Mr. W. Robert, Member Railway Betterment Board, "Carrying your merchandise." 7.45—8—The British Music Society's Quartet: "Quartet for Strings in D Major No. 60 (The Hornpipe) (Haydn): 1, Allegro moderato; 2, Adagio cantabile; 3, Minuet (Allegret-

Programme continued on page 46

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The usual meeting was held in the Daceyville Band Hall on Tuesday, Nov. 17, and was largely attended. A lecture by Mr. W. Hardy, entitled "What is Electricity and What is its Relationship to Wireless Waves?" was very attentively listened to and appreciated very highly. Mr. Hardy will be remembered by many "Wireless Weekly" readers for his articles published in that paper; also, it is a pleasure to say he has become an active member of this club. His call sign is 2RD, so readers will note there are two transmitters in the club, 2UE being the other one in an "honorary capacity."

The activities of the club cover a huge amount of ground, comprising the districts of Long Bay, Botany, Mascot, Maroubra, and Matraville, South Kensington, Daceyville and South Randwick in general.

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to); 4, Finale (Vivace); Mrs. Alberto Zelman (soprano): (a) The Almond Tree (Schumann); (b) Moonlight (Schumann); (c) The Green Hat (Schumann); Ada Freeman, Mus. Bac., and Alberto Zelman: Sonata in A Major, for pianoforte and violin, Op. 100 (Brahms): 1, Allegro amabile; 2, Andante tranquillo; 3, Allegretto grazioso (quasi andante). 9—Captain C. H. Peters, Books, wise and otherwise. 9.15—Mrs. Albreto Zelman (soprano): (a) Sea Wrack (Hamilton Harty); (b) The Cloths of Heaven (Thomas Dunhill); (c) I Heard a Piper (Arnold Bax). Ada Freeman and the British Music Society's Quartet: Quintet in E flat for pianoforte and strings, Op. 44 (Schumann): 1, Allegro brillante; 2, In Mod. D'una Marcia (un poco largamente); 3, Scherzo (Molto vivace), with two trios; 4, Allegro ma non troppo. 10.45—Argus and Herald News Services. 11—God save the King.

THURSDAY, DECEMBER 10.

Morning Session (11 a.m. to 2 p.m.): 11—Time signal. Express train information. 11.3—Musical items by the Buckley and Nunn studio orchestra. 12 noon—Time signal. 12.2—Buckley and Nunn studio orchestra. 12.30—Argus and Herald news service. Reuters and the Australian Press Association cables. 12.45—Buckley and Nunn studio orchestra. 1—Time signal. 1.2—Buckley and Nunn studio orchestra. 1.45—Herald and Argus news services. Stock exchange information; weather forecast; river reports. 2—Result of the first race from the Mornington Race Club Meeting. 2.5—Close down. 2.25—Result of the second race from the Mornington Race Club Meeting. 2.50—Result of the third race.

Afternoon Session (3 to 5.15): 3—Time signal. 3.1—Musical programmes by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco. 3.15—Result of the 4th race from the Mornington Race Club Meeting. 3.20—Paramount Theatre Orchestra. 3.40—Result of the 5th race from the Mornington Race Club Meeting. 3.43—Paramount Theatre Orchestra. 4.5—Result of the 6th race from the Mornington Race Club Meeting. 4.8—Paramount Theatre Orchestra. 4.30—Result of the 7th race from the Mornington Race Club Meeting. 4.35—Paramount Theatre Orchestra. 4.45—Mr. A. Williams, Melbourne and Sub. Retail Fruiterers' Association, "The high price of fruit and vegetables in metropolitan markets." 5—Result of the last race from the Mornington Race Club Meeting. 5.3—Herald and Argus news services. Reuters and the Australian Press Association cable news. 5.15—Close down.

Evening Session (6 to 7.15): 6—Children's hour. Billy Bunny stories by Little Miss Kookaburra, who will tell the tiny tots about a little talk she had with Santa Claus, then an Uncle Remus story about How Brother Rabbit lost his bushy tail, and a story for the bigger children. 6.45—Herald and Argus news services. Reuters and the Australian Press Association cable news. Market reports; weather synopsis; closing Stock Exchange information; shipping movements. Market reports by the Victorian Producers' Co-operative Co., Ltd. Haymarket sales; cattle, pigs, carcase meat, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.30 to 11): Variety: Speakers: Mr. A. E. McMicken, Mr. W. P. Riordan, Mr. J.

E. Johnstone, diver; The Melbourne Repertory Theatre Society. Mr. A. Borthwick, xylophonist; Mr. Norman Bradshaw, tenor; Robert Keers and the Tivoli Orchestra; the Buckley and Nunn Studio Orchestra. 7.30—Mr. A. E. McMicken, librarian, City of Prahran, The Australian Aborigines; their customs and myths. 7.45—Under the auspices of the Health Association of Australasia: Mr. W. P. Riordan, Cleaning your Teeth. 8—Robert Keers and the Tivoli Orchestra, transmitted from the Tivoli Theatre, by permission of Musgroves Theatres Ltd. 8.30—Mr. J. E. Johnstone, will dive to the bottom of the Yarra and from there will relate his experiences. 8.45—The Buckley and Nunn Studio Orchestra in dance numbers: Fox trot, China Girl, Twilight, the Stars and You; Waltz, Sally. 9—The Melbourne Repertory Society: How he lied to her Husband, by Bernard Shaw. Cast: Aurora, the wife, Elizabeth Apperley; Henry, the poet, Terence Crisp; Teddy, the husband, Charles Row; Scene: The wife's sitting room. Play produced by Mrs. Elizabeth Apperley. 9.40—The Buckley and Nunn Studio Orchestra: One step, Savoy American Medley. 9.55—Mr. Norman Bradshaw, tenor, Angels Guard Thee (Godard). 10—Argus and Herald news services. 10.4—Mr. A. Borthwick, selections on the xylophone. 10.20—The Buckley and Nunn Studio Orchestra: Fox trot: In the garden of To-morrow; California, here I Come. 10.35—Mr. Norman Bradshaw, tenor: When the swallows homeward fly (white); A Memory (White); Let us Forget (White). 10.43—Buckley and Nunn Studio Orchestra: Waltz, Little town in auld County Down; Midnight Waltz; Fox trot: Love came calling; Indian Dawn. 11—God save the King.

FRIDAY, 11th DECEMBER.

Morning Session (11 a.m. to 2 p.m.): 11—Time Signal; Express Train Information. 11.3—Musical Items by the Buckley & Nunn Studio Orchestra. 12 noon—Time Signal. 12.2—Buckley & Nunn Studio Orchestra. 12.30—"Argus" and "Herald" News Services; Reuters and the Australian Press Association Cables. 12.45—Buckley & Nunn Studio Orchestra. 1—Time Signal. 1.2—Buckley & Nunn Studio Orchestra. 1.45—"Herald" and "Argus" News Services; Weather Forecast; River Reports; Stock Exchange Information. 2—Close down.

Afternoon Session (3 to 5.15): 3—Time Signal. 3.1—Dr. Dumont Dunn, Ph.D.Litt.: "Contemporary Poets—Part 2." 3.15—Musical Items by the "Paramount" Theatre Orchestra under the baton of Signor Vincent Ricco. 4.45—"Au Fait" of Buckley & Nunn Ltd., in a Fashion Talk. 5—"Herald" and "Argus" News Services; Reuters and the Australian Press Association Cables. 5.15—Close down.

Evening Session (6 to 7.15): 6—Children's Hour. "Billy Bunny" stories; "Nursery Rhymes"; "The Enchanted Forest"; "Houses of the Eagle." 6.45—"Herald" and "Argus" News Services; Reuters and the Australian Press Association Cables; Market reports. Closing Stock Exchange information; weather synopsis; shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.; dairy cattle, sheep, carcase meat, grain, chaff, hay, straw, jute, dairy produce; potatoes and onions.

Night Session (7.15 to 11): Speakers: Mr. R. H. Wilmot; Miss Doris Johnstone, The Farmer's Wife, Mr. R. A. Broinowski. Students' Concert, assisted by the Melbourne Symphony Orchestra, and the British Musical Society's Quartette. The Studio Instrumental Trio. 7.15—Mr. R. H. Wil-

mot, Everyday Chemistry: Acetylene. 7.30—Under the auspices of the Develop Australia League, Major F. E. Forest, Australia's Lost Opportunities. 7.45—Miss Doris Johnstone, who is playing Araminta Dench in The Farmer's Wife, will speak from her dressing room at the Theatre Royal, by permission of J. C. Williamson Ltd. 8—H. A. Thomson School of Pianoforte Playing, Students' Concert, assisted by the British Musical Society's Quartette and members of the Melbourne Symphony Orchestra: Conductor, Mr. Alberto Zelman; vocalist, Miss Violet Jackson, transmitted from the Assembly Hall. Miss Molly Mateer: Sonata in D, Op. 10 1st Movement (Beethoven); Miss Belle Jones: (a) Gavotte (Gluck-Brahms); (b) Album-leaf (Mendelssohn); Miss Lucy Reynolds: Prelude and Toccato, Op. 57 (Lachner); Miss Violet Jackson, Aria: One Fine Day, Madame Butterfly (Puccini); Miss Josephine Grifful: Ballade in G minor, Op. 23 (Chopin); Miss Olive Mutton: (a) Warum, (b) Novelette in E (Schumann); Miss Rita Pearson: (a) Idyll, (b) Hexentanz (MacDowell); Miss Lalle Meredith, Concerto, E minor, Op. 11, 1st Movement (Chopin), Orchestral accompaniment on 2nd piano and strings. During the interval: from the Studio: Mr. R. A. Broinowski: Famous men of the Ages—Pasteur. Miss Florence Reiniets and Doris Lugg: Concerto in C major for two pianos (Bach); Allegro Moderato: Adagio Ovvero Largo—Fuga (with accompaniment for strings); Miss Violet Jackson: (a) Prelude (Cyril Scott); (b) Spring Song (H. A. Thomson); Miss Bonnie Rusden: Variations and Fugue (on a theme by Handel); Op. 24 (Brahms); Misses Doris Lugg, Florence Reiniets, Lalle Meredith, Bonnie Rusden, pianists; Quintette

for piano, 2 violins, viola and violincello, Op. 44 (Schumann); Allegro Brillante — In mod d'una Marcia—Scherzo, molto vivace—Allegro ma non-troppo; Miss Bonnie Rusden, accompaniste. 10.30 approximately—Argus and Herald News Services. 10.35—The Studio Instrumental Trio: Petite Suite (George St. George); Peer Gynt Suite (Grieg). 11—God save the King.

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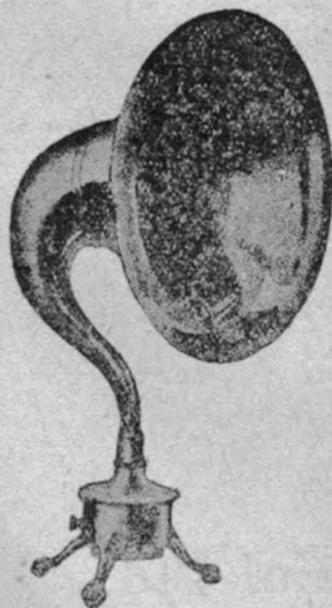
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50	"	"	2/-	"	4/-
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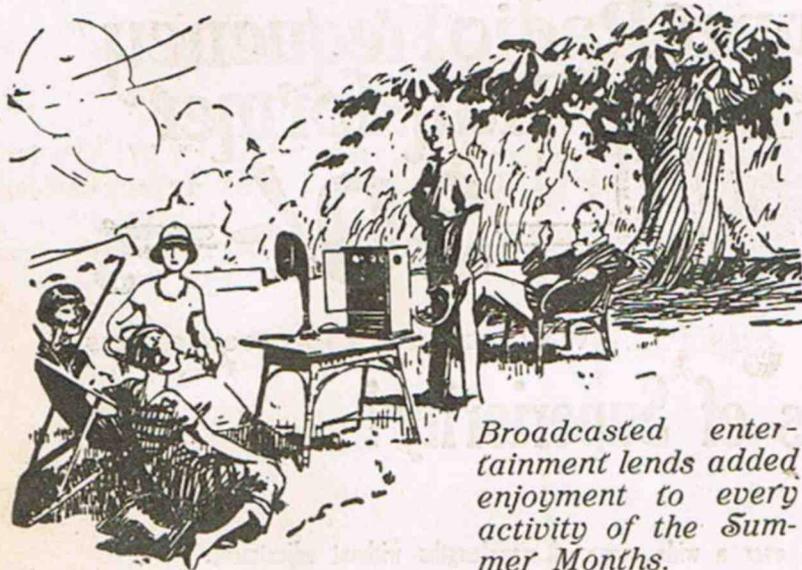
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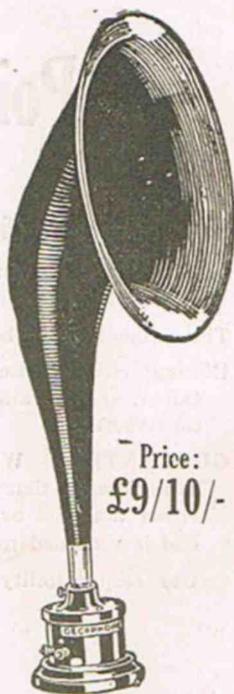
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