

WIRELESS WEEKLY

Registered at the G.P.O., Sydney, N.S.W.

Transmitted by post as a newspaper.

VOL. 7. No. 10.

FRIDAY MARCH 12, 1926

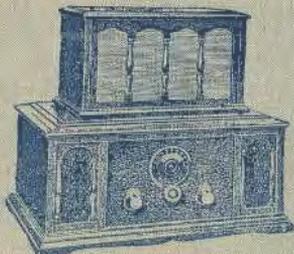
3D



CONTROL
SINGLE

Distant Stations

at a
Flick
of the
Fingers.



Five tube tuned radio frequency set. Built-in Magnavox Loud Speakers encloses all batteries standard Magnavox interchangeable circuit assembly drawer; hand rest, which, when not in use, encloses dial panel with louvered grille over sound opening. Artistic mahogany cabinet, hand rubbed finish.

"Widely Known for Quality—Tone"—Magnavox.

Full Particulars. Prices on Application.

D. T. HINCHEN

Direct Factory Representative
Chalke House, Sydney. Wholesale Outlets, See B 5007.

FEATURE

Full
Constructional
Details of the
Neutrodyne

Something New!

A CONTINENTAL



199 VALVE

With a Standard Base

Truly the Continental 199 with the standard base fills a very urgent need.

Fitting any standard socket—it obviates all the changes in sockets heretofore necessary when a set owner wished to use dull emitter valves.

Sturdily built—it is the result of years of research work by engineers of the Continental Tube Co., Chicago, and bears their unqualified guarantee.

Type C 199—Detector and Amplifier

Fil. Volts	3
Fil. Amps.	.06
Plate Voltage	15-80

New Retail Price for 201A or 199 Type

12/6

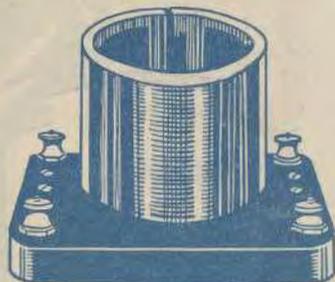
At All Dealers

UNITED DISTRIBUTORS LTD.

WHOLESALE ONLY

72 Clarence St., Sydney
343 Queen St., Brisbane
Cr. Jarvis Quay & Har-
ris St., Wellington, N.Z.

664 Bourke St., Melb.
26 Queen St., Perth.
37 Chesser St., Adelaide



The Valve of Super Service

DE FOREST

TYPE DV

Bases of the Supreme Insulation
ISOLANITE



DV3.
.06 Amps. 3 Volts.
STANDARD SOCKET.

Detector:
16 to 22½ volts.
Amplifier
45 to 120 volts.

DV2.
5 Volts. .25 Amps.
STANDARD SOCKET.

Detector:
16 to 22½ volts.
Amplifier
45 to 170 volts.

Conceived for **SERVICE**, built for **SERVICE**, sold for **SERVICE** and renders **SERVICE**.

Serves Better
Lasts Longer

Such VALVES and ONLY such valves are
DE FORESTS
Ask your Dealer



INTERNATIONAL RADIO Co. LTD.

200 Castlereagh Street, Sydney.

91-93 Courtenay Place, Wellington, N.Z.



Trade Mark



EVER-READY RADIO A, B, OR C BATTERY.

As an "A" Battery for use with .06 amp. dry cell valves, it is very compact and particularly useful for portable sets.

A number connected in series will form a large capacity, heavy service "B" battery for use with high-powered valves.

This battery is in almost universal use on sets requiring a negative bias to the grid. As a "C" battery it is tapped for 1.5, 3, or 4.5 volts.

No. 126 .. Price 2/9 (in N.S.W.)

Uniform in Quality EVER-READY Radio Batteries

You can count on absolute uniformity of results from every Ever-Ready Radio Battery you buy. Made to a very high standard of quality by a new process which gives longer life and better service in operation. Used by leading radio experimenters, such as Mr. C. Maclurean, all over Australia.

EVER-READY RADIO "B" BATTERY

Made in a range of capacities suitable for 1 to 5 valve sets with close tapings for various voltages.

For use with 1 and 2
Valves.

WP30 volt 9/6
WP40 volt 12/6
WP60 volt 18/-

For use with 2 to 5
valves.

XP30 volt 16/-
XP40 volt 21/-
XP60 volt 31/0

(Prices quoted apply to N.S.W. only).

All Ever-Ready Radio Batteries are obtainable from up-to-date dealers throughout Australia. If unobtainable locally, write for address of nearest source of supply.

EVER-READY CO. (Gt. Britain) LTD.
163 PITT STREET — SYDNEY

R. SLOAN,

Clothing Manufacturer, Croydon.

2/3/26.

Radio Wireless Mfg. Co.,
289 George Street,
SYDNEY.

Dear Sirs,

I am so pleased with your Special Four which I only tried out last night that I must write to you at once to let you know how this beautiful receiver is working. After coupling the set up at about 8.15 p.m. last night I turned the dials and the first station I heard was 5GL, Adelaide, then came 3LO, 3AR, 2BL, 2KY, 7ZL. I think that is something worth writing about.

You may use this letter as you wish and hope you will sell many of them as I think it is the best set I have had out of my seven sets I have owned so far. It beats my five valver.

Wishing you every success, I remain,

Yours truly,

Signed. R. SLOAN,

CROYDON.

You can own a Set like this for

£2/17/6 deposit and pay the balance at 8/9 weekly

Total Price

£26/10/0

Complete with Batteries, Valves, Phones and Aerial Gear

RADIO-W'LESS MANUFACTURING CO.

289 GEORGE STREET. SYDNEY

experts in radio acoustics since 1908

Brandes



The Table-Talker makes a friend of the electrical impulse

Acoustics is the science of sound. Radio acoustics is the science of transforming the electrical impulse into audible sound. The electrical impulse is a jolly little fellow who needs to be consulted if you are to get the best out of him. We've been making friends with him for seventeen years and the *Table-Talker* is but one result of our efforts. The goose-neck horn means clearer and more rounded tones, and the patent material of which it is constructed eliminates any suggestion of harshness or metallic resonance. Fitted with an adjustable diaphragm, it is finished in a pleasant shade of neutral brown. Height 18", bell 10",

Ask your Dealer for Brandes.

63/-

The Brandola.

Matched Tone Headphones. Audio Transformer, Ratio 1-5

 <p>130/-</p>	 <p>30/-</p>	 <p>27/6</p>
<p>Brandes Limited 56 Regent St., W.S.</p>		

INTERNATIONAL RADIO COMPANY LTD.,

200 Castlereagh Street, Sydney
91-93 Courtenay Place, Wellington, N.Z.



Published by Publicity Press Ltd., 12/16 Regent St., Sydney, Australia.
 Phones: Redfern 964 and 955.

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.

Managing Editor: E. O. MUMFORD.

Editor: A. W. WATT. Technical Editor: C. W. SLADE.

Advertising Manager: J. T. REEDIE.

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.

Subscription Rates.—Twelve months (52 issues), 13/-. post free. Six months (26 issues) 6/6. post free. Single Copies 3d. each, or post free 4d.

Advertising. Copy must be in the hands of the Managing 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 by non-subscribers 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.

Agents in Great Britain.—The Colonial Technical Press Ltd., Dudley House, Southampton Street, Strand, W.C. 2.

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

"Wireless Weekly" is fully protected by copyright, and nothing that appears in it may be reprinted, wholly or in part, without special permission. The use of our articles or quotations from them for any purpose whatsoever is never authorised.

CONTENTS

	Page
Constructional Details of Neurodyne Receiver	7
What Wireless Means	13
On the Air	17
From Here and There.. . . .	27
Amongst the Traders.. . . .	33
Long Waves Versus Short Waves	34
Round the Clubs	35
Broadcasting Programmes	37

BROADCASTING AS A PUBLIC SERVICE.

Of world wide importance is the announcement published in the "Sydney Morning Herald," of March 8th, dealing briefly with the official report of the committee appointed to decide the nature of the broadcasting administration in Great Britain after the expiration of the present license of the B.B.C. on December 31st, of this year.

The outstanding feature is that it is recommended that Broadcasting be made a public service. It has been contended for some time that broadcasting actually does come under this category and the world's foremost authorities have pointed out that sooner or later Broadcasting would be so firmly linked up with the national life that the public would learn to regard it as a necessity.

In Great Britain, where it is estimated that the radio audience exceeds ten million people, this is precisely what has occurred and no greater proof could be had than this official recognition of the fact. Beside that fact, it is ample evidence that the B.B.C. has, despite the monopolistic allegations that have been made against it by ill-informed or biased critics, obviously given the public good service, otherwise the public would never have

taken broadcasting up so enthusiastically.

The popular belief is that broadcasting is primarily an entertainment medium, but, if leading authorities in Great Britain and America may be believed, the time is coming when the entertainment point of view will become a side issue and the principal value of the art will lie in its application to the public service—for instance in such directions as education, the dissemination of important news, etc.

Australia, of course, must always lag to a certain extent behind the two countries mentioned above, mainly because new ideas and inventions developed there take a certain time to reach us.

There is nothing, however, to prevent us adapting broadcasting as far as we possibly can for the common good, and in this direction the first objective should be the development of Educational broadcasting to supplement the present system — and following that, the establishment of a press station is a necessity.

The sooner these two things are pushed ahead the more rapidly will the public begin to realise the true value underlying broadcasting.

A. W. WATT.

Just Arrived

SHIPMENT OF

NA-ALD Genuine Bakelite Sockets

Both Standard and 199 types, also

M.R.L. Low Loss CondensersFrom **18/6** eachBoth Lines are going fast so do not delay with your order

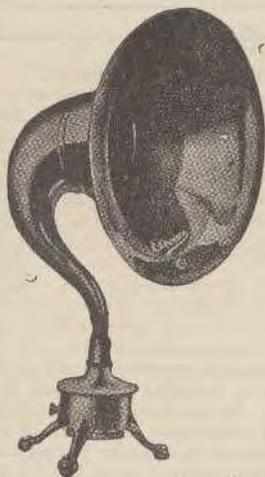
Wholesale from

Burgin Electric Co., Ltd.

340 KENT STREET, SYDNEY

Box 734, G.P.O.

Tel.: City 141, M 3069



Now £7

BURNDEPT*The House for Quality*The Winter Months are approaching—Make it a
RADIO WINTERThe **Ethophone V & Ethovox Speaker**
Still **Remain** SupremeWe regret we are completely sold out of the
BURNDEPT ETHODYNE
Seven Valve Super Heterodyne Receiver**Place your order NOW to ensure a reservation out
of the Next Shipment****BURNDEPT**

Australasia Limited

Broughton House, 181 Clarence St., Sydney.

Tel. M 3732

Constructional Details of Neutrodyne Receiver

We feel sure there are many of our readers who have refrained from building multi-valve receivers owing to the fact that they have not sufficient confidence in their constructional ability. The following article should help considerably to drive away that fear. In dealing with the order and method of construction we have endeavoured to advise our readers in a simple and explicit manner, by showing photographs of the front and back views of the completed receiver and supplying drawings which clearly show the exact positions of the panel components and wiring.

The following materials are necessary.

Mounted on Panel.

- 1 Panel, 26 x 8 x 3/16 inches.
- 1 Baseboard, 26 x 8 x 7/8 inches.
- 3 .00025 or .0005 condensers.
- 3 Dials, 3 inch or 4 inch.
- 2 Rheostats, to suit valves used.
- 1 Filament switch.
- 1 S.C. Jack.

Mounted on Baseboard.

- 3 Neutroformers.
- 2 Neutralising condensers.
- 5 Valve holders.
- 5 Valves.
- 2 Audio transformers.
- 1 Variable grid leak.
- 1 .00025 grid condenser.
- 2 .006 condensers.

Mounting the Panel Components.

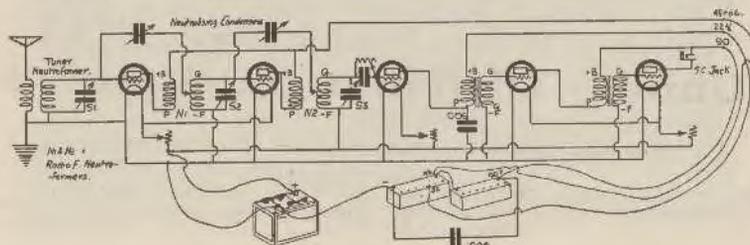
Care should be taken in drilling the panel so that the centre of each component exactly corresponds with our drawing Fig. 1. A very good plan is to make a small hole with a centre punch; then when the template of the condensers or rheostats are placed on the panel the point which cor-

responds to the shaft should be placed exactly over these holes in their respective positions. In the case where one hole mounting condenser or rheostat is used a hole just large enough to take the shaft is, of course, all that is necessary.

Don't be tempted to mount any of the panel gear until all the necessary holes have been drilled. This completed you should now mount the baseboard components, as shown in the photographs and drawings. You will find that there is just sufficient room without cramping the parts. Most of the commercial types of neutroformers are supplied fitted with a bracket, so that if care is taken not to alter the shape of this bracket, the correct angle of the coils necessary to prevent interaction must follow.

You will notice that we have placed No. 1 neutroformer at right angles to the other two. This gives more room for the remaining gear, places the grid terminal close to the G terminal of the first valve holder, and places the primary terminals of the neutroformer in a handy position for aerial and earth connections.

When you have all the baseboard components screwed down securely you may return to the panel and commence to wire it up carefully, noting our drawing Fig. 2. Now return again to the baseboard and wire the components in the following order: Link the two outside "F" terminals of the first and fifth valve holders; next solder a small connection from this bus-bar to one of the F terminals of the second and third and fourth valve holders. These completed, wire up the audio transformers as per diagram. Note carefully that P of valve holder goes to P of audio transformer and G of valve holder goes to G of transformer in each case.

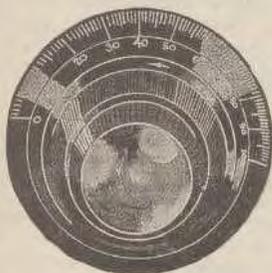


The Neutrodyne Circuit.



Kurz - Kasch Aristocrat E - Z - Toon

"A Better Vernier Dial"



THE Kurz-Kasch Aristocrat E-Z-Toon vernier dial is the key to simplified tuning. It has a 50 to 1 vernier which makes possible that close tuning so essential in separating stations.

The exclusive patented split bushing used for mounting is a refinement not found on any other than Kurz-Kasch products. This not only holds the dial perfectly tight on the shaft, but assures perfect alignment and symmetrical calibration.

All Kurz-Kasch Dials are moulded of genuine Bakelite highly finished and widely different from mud made imitations of standard products—and are recognised laboratory instruments.



Four inch Dial—with 2½ inch tapered vernier knob (a) and 2 inch tapered knob (b) for ordinary tuning. Kurz-Kasch patented split bushing for mounting. Fits any length of shaft.

No cogs or gears—no back lash or lost motion. Simply and quickly installed. No drilling of panel or other changes in set required. Rigid construction—nothing to break, wear out or get out of order.

RETAIL PRICE

Kurz-Kasch E-Z Toon Aristocrat
Vernier Dial 0-100 16/6

AT ALL LEADING DEALERS

United Distributors Limited

WHOLESALE ONLY

Sole Australasian Distributors for Kurz-Kasch Products

343 Queen St., Brisbane. 26 Queen Street, Perth. 72 Clarence Street, SYDNEY. Cnr. Jervois Quay & Harris Street, Wellington, N.Z. 664 Bourke St., Melbourne. 27 Chesser St., Adelaide. 74 Charles St Launceston, Tas.



Front Panel Views.

The same thing applies when wiring up the neutroformers. You will find that they are also marked with their respective initial letters. In the case of the third neutroformer, however, the G terminal goes to one side of the grid condenser and leak, and the other side follows on to the G terminal of third valve.

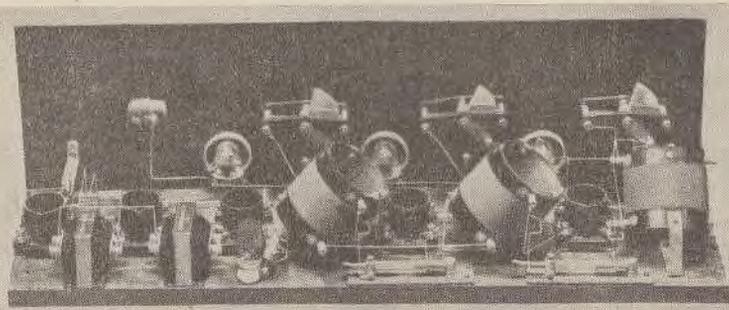
The grid return of the first and second neutroformers (terminals marked F) should be connected to the negative A which is the first long bus-bar connection you fitted to the baseboard components. The grid return of the third or detecting valve must, however, be connected to the positive A, in order to give the detecting valve a positive bias. If you look again at Fig. 2 you will see that the positive A bus-bar runs right along the panel, so that when you have secured the panel to the baseboard the lead from the F terminal of the third neutroformer will not need to be very long in order to make the necessary connections.

Your object throughout should be to run all connections as short and direct as possible. If you do this you may be sure that you will be more than pleased with the ultimate success this receiver will give you. The oft repeated advice to buy and use only the best applies particularly to equipment necessary for this hook-up. The outstanding feature of the Neutrodyne Circuit lies in the fact that it employs the basic principle of tuned radio

frequency amplification together with complete neutralisation of the inherent capacity coupling of the valves and their associated circuit. While the internal capacity existing between the plate or grid and filament is exceedingly small under certain operating conditions, the result oscillation and regeneration in the high frequency amplifier is somewhat of an impediment to good reception, especially where large numbers of listeners are situated at close quarters.

This small capacity existing between the filament and grid and between plate and grid is, together with the external circuits, responsible for the production of an oscillating current in the plate circuit. In the Neutrodyne circuit, however, this small valve capacity is neutralised by means of another very small capacity of equal value, so inserted in the circuit as to balance the capacity effect with the valve. The critical adjustment of the Neutrodyne depends upon this small variable condenser, sometimes termed a neutrodin, and the best method of varying it, in order to be sure of correct neutralisation, as follows: With all three rheostats turned on, plug in the jack using phones (if not too close to a broadcasting station). Next turn all three of the condenser dials about until maximum volume is obtained.

When the three condensers have been carefully adjusted to give the loudest volume it will be found that the two right hand condensers show almost identical settings. The left hand condenser may read a few degrees lower than the other two if the receiver is used on a large aerial. If it does it is advisable to carefully unscrew the set screw and advance the dial until it reads the same as the other two dials. This will help you considerably when searching for distant stations.



Photograph showing layout of Parts.

DRY CELLS FOR EVERY PURPOSE

ALWAYS ASK FOR

Diamond Radio Batteries

MORE THAN A MILLION SUPPLIED ANNUALLY.

TELEPHONE CELLS.

TELEGRAPH BATTERIES.

"Cost More To Build."

"Cost Less To Operate."

"A Radio Set is no better than its Battery."

"Diamond Batteries make Good Sets Better."



Wireless A B & C Batteries

Produced Expressly for Radio Transmission Reception

Ignition Batteries

<p>Wholesalers:</p> <p>AMALGAMATED WIRELESS (AUST.) LTD. NOYES BROS. F. A. SEGUW LTD. T. P. STEWART & CO. MARTIN DE LAUNAY LTD. HOLDSWORTH, MACPHERSON & CO.</p> <p>Retailers:</p> <p>ANTHONY HORDERNS' FARMERS LTD. GRACE BROS. LTD. E. R. COLLEN. NOCK & KIRBY</p>	<p>Retail Price List</p> <table border="1"> <tr> <th colspan="2">BATTERY</th> </tr> <tr> <td>A</td> <td>1.5Vt "Coil" 2/6</td> </tr> <tr> <td></td> <td>1.5 "Buzzer" Lamp 3/0</td> </tr> <tr> <td></td> <td>1.5 "C-wealthtype" 5/6</td> </tr> <tr> <td></td> <td>1.5 "Dominion" 4/6</td> </tr> <tr> <td></td> <td>1.5 "Navy Special" 3/0</td> </tr> <tr> <td>B</td> <td>80 "Large Type" 25/0</td> </tr> <tr> <td></td> <td>45 "Large Type" 20/0</td> </tr> <tr> <td>C</td> <td>4.5 "Bison" 2/9</td> </tr> <tr> <td></td> <td>4.5 "Lige Special" 12/0</td> </tr> <tr> <td></td> <td>6.0 "Lignite" 15/0</td> </tr> </table>	BATTERY		A	1.5Vt "Coil" 2/6		1.5 "Buzzer" Lamp 3/0		1.5 "C-wealthtype" 5/6		1.5 "Dominion" 4/6		1.5 "Navy Special" 3/0	B	80 "Large Type" 25/0		45 "Large Type" 20/0	C	4.5 "Bison" 2/9		4.5 "Lige Special" 12/0		6.0 "Lignite" 15/0	<p>LASSETTERS LTD. EDWARD ARNOLD LTD. RADIO HOUSE COLVILLE-MOORE LTD. MISS WALLACE LEVENSON'S SLINGSBY & COLES LTD. MARKS' ELECTRICAL NICK SIMMONS LTD. MARK FOYS LTD. DAVID JONES ECONOMIC RADIO CO. HOWELL'S WIRELESS EX-CHANGE RAILWAY RADIO STORE MARKS' RADIO STORE</p>
BATTERY																								
A	1.5Vt "Coil" 2/6																							
	1.5 "Buzzer" Lamp 3/0																							
	1.5 "C-wealthtype" 5/6																							
	1.5 "Dominion" 4/6																							
	1.5 "Navy Special" 3/0																							
B	80 "Large Type" 25/0																							
	45 "Large Type" 20/0																							
C	4.5 "Bison" 2/9																							
	4.5 "Lige Special" 12/0																							
	6.0 "Lignite" 15/0																							

All Leading Radio and Electrical Stores

Every Cell is Guaranteed.

Made by Australians, in Australia, for Australians.

Supplied to—

Postmaster-General's Department

New South Wales Government Railways and Departments



Navy Department
 Public Works
 Water Board
 New South Wales Fire Brigades,
 Ordnance Stores etc.

Factory Representatives:
REG. ROSE & CO.

"Kembla Buildings," Margaret Street, Sydney. Phone, B3872.

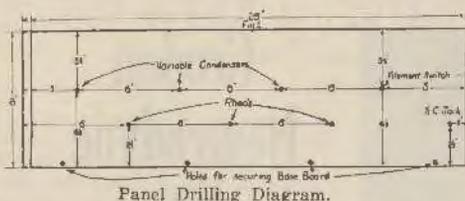


1.5 Volt Buzzer.
 High Amperage.
 35 amps Sht. Circuit

Manufactured by

WIDDIS DIAMOND DRY CELLS
 PTY. LTD.,

West Melbourne, Vict.



Panel Drilling Diagram.

The next step in the balancing out programme consists in removing the first radio frequency valve from its socket and readjusting the three dials carefully for maximum volume again. A small piece of paper is next placed over one of the filament contact pins of the first valve, after which the valve should be again inserted in its socket. In this the plate and grid of the valve will be connected in the R.F. circuits, but the valve will not light, because the paper prevents proper contact.

Care should be taken here not to turn off the rheostat, because the balancing process must neutralise all capacity effects, including filament battery connections.

With the valve rendered inoperative, as stated faint signals will still be heard in the phones, due to the existing capacity coupling, which is now to be neutralised. It will be found that the signal strength of the broadcasting station is adjustable over quite a range by moving the metal tube of the first neutralising condenser. The correct adjustment, however, is for minimum or inaudible

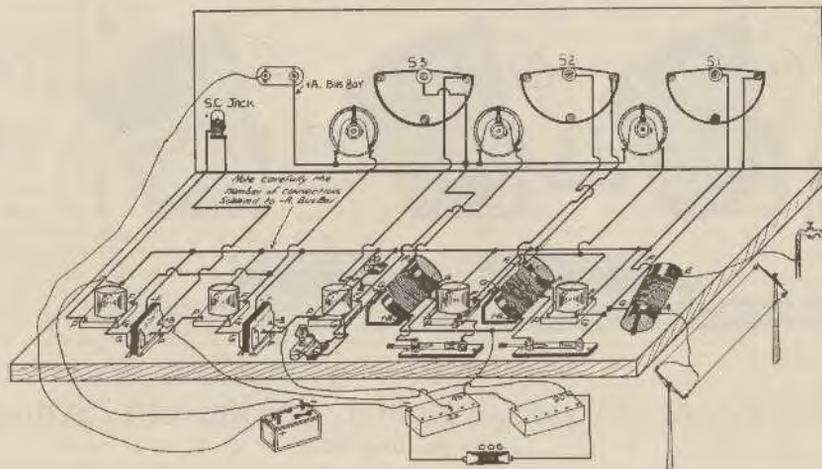
volume. To prove whether you have correctly neutralised, remove the first valve from its socket altogether this should result in an increased volume. Replace it with the paper still under one filament pin and the volume should again be considerably reduced. The same procedure should now take place with the second valve and second neutralising condenser. This time, of course, the first valve is lit and the paper is placed under the filament of the second valve.

Care should be taken when regulating either of the neutralising condensers that all three variable condensers are adjusted for maximum volume. There are other methods of neutralising, such as varying the neutralising condensers until it is impossible to tune in the carrier wave of the broadcast station. This method is, however, very inefficient, and is not recommended.

In checking up his receiver on the broadcast reception, by adjusting the dials controlling condensers S1, S2, and S3, the music or speech should be heard without any howling, whistling or beat notes, so familiar with the regenerative type of receiver. If these objectionable noises are heard the circuit is not functioning in accordance with the Neutrodyne principle and consequently you must readjust the neutralising condensers.

When tuning don't be too impatient; remember that, in operating this type of receiver, owing to its extreme selectivity each of the three variable condensers must be accurately adjusted. When once you have found the best adjustment of each

(Continued on page 13, bot. col. 1)



The Back of Panel Wiring Diagram.



Grodan Neutrodyne Kits

For Home Assembly

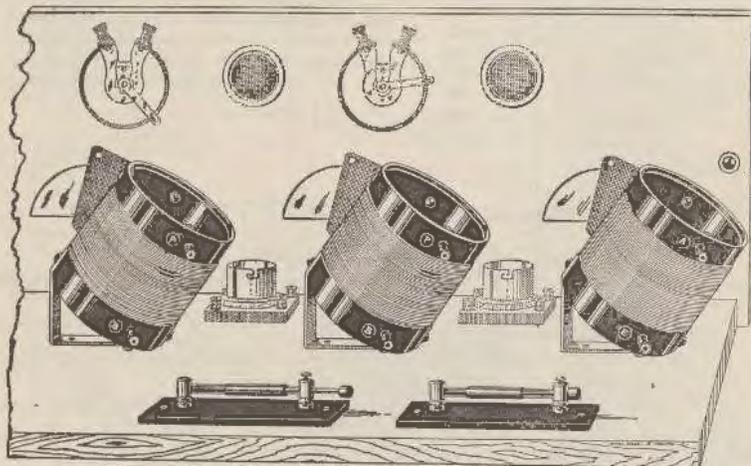
Neutrodyne kits are ready to install offer the best inducement to those building a set for selectivity and distance. Price for Kits, viz., 3 Neutrodyne, 2 Neutralising Condensers, 27/6 each.

Parts comprising: 8 Sets Special Tubes, 3 Angle Frames N.P., 2 Neutralising Condensers, 12 Binding Posts, 16/6 ea.

Folding Loop Aerials, Pericon Detectors, "Ecs" Plug and Socket Terminals, Solder Plug in Formers, Headphones, Loud Speaker Adapters, etc., etc.

COMING SHORTLY

The new Grodan "Adjustoformers" for Neutrodyne Kits. Watch for them.



27/6
each

Ask your dealer for Grodan Radio Products

GROSE & DANIELL, Holden St., Redfern, Sydney

Phone, Red. 373

WHAT WIRELESS MEANS

How the Microphone Turns Sound Waves into Electric Waves

AN ARTICLE FOR THE BEGINNER.

The understanding of wireless and broadcast transmission of speech and music does not call for a high standard of scientific training. Two things alone are needed—a little imagination and a little common sense. With these two you will have no difficulty whatever in obtaining a thorough grasp of the principles on which wireless is based. For the time being, however, put aside your text book, with all its wearisome jumble of technicalities with which you have stocked your mind.

We will begin at the beginning and see how far we can progress towards an understanding of the principles of wireless before it becomes necessary to call in the aid of technical terms and devices. The oldest system of wireless, of course, is that by means of which ordinary conversation is carried on between two people. When you chat with your friend you are communicating by wireless in the strictest sense of the term, even though you may only be a yard away from each other.

You transmit a message from your throat and mouth, and he receives it by his sense of hearing. How is this possible? What is it that enables us to converse in this way without the use of wires? We are all familiar with this kind of wireless that these simple questions are apt to be rather baffling. They are well worth consideration, however, because Nature's miniature system of wireless is analogous in many respects to the more powerful one devised by man.

You perform the simple act of speaking by vibrating your vocal chords in your throat. These

vocal chords vibrate and send out waves of energy which travel in all directions through the surrounding air, in a manner similar to that in which waves travel outwards from the point of disturbance when a stone is dropped into a pool of water. When the waves caused by you speaking impinge on your friend's ear, they cause the little diaphragm within his ear to vibrate in sympathy with your vocal chords, thus producing a definite sound and conveying it to his mind or brain.

If you vibrate your vocal chords slowly, the waves of energy will follow each other slowly through the air. If, however, you vibrate your vocal chords quickly, the waves will follow each other at short intervals. In each case the pitch of the sound which your friend receives will depend upon the rate with which you vibrate your vocal chords. The higher the rate of vibration, the higher will be the pitch of the received note.

There is another important aspect of this simple method of sending wireless messages. When two people converse, the energy that passes from the speaker to the listener comes from the general store of life energy that animates the speaker's body. The complete transmitter, therefore, comprises two main items—(1) a quantity of energy, (2) chords which are capable of being vibrated by means of this energy.

Sound itself is really a mental experience. Nature has, therefore, endowed us with a very sensitive and delicate mechanism, whereby the vibrations of the diaphragm of the ear are converted into the sensation of sound within the mind. The receiving equipment for ordinary conversational wireless thus comprises two main items also—(1) a diaphragm which is capable of being vibrated, (2) a suitable mechanism for detecting these vibrations and converting them into the mental experience of sound.

We have now considered the chief factors involved in Nature's method of communicating without wires, and it is on precisely similar factors that the science of modern wireless is based. A wireless transmitting station consists of long chords of wire, which are vibrated by means of the energy that is drawn from a powerful supply of electricity. The vibrations that are set up give rise to waves of energy which flow through space in all directions and which are played in their path.

The first requisite of a wireless receiving station, therefore, is some kind of sensitive vibrator which will fulfil the same function as the diaphragm of

Continued from page 11

make a note of them and you will find that every one of your family will be able to reproduce the same results as you have.

In order that this article may be of the utmost service to our readers, the actual receiver as built by the technical staff of "Wireless Weekly" is now on show at the firm of W. H. Wiles, Goulburn Street, Sydney. This receiver was finished at 10.15 p.m. on Monday and before 10.30 p.m. the following stations were all successfully received without any interference: 2BL, 3LO and 5CL.

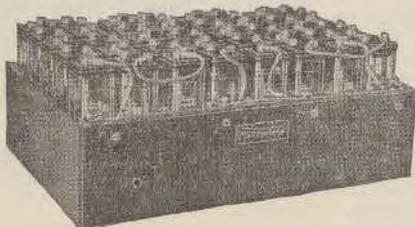
It is only fair to state, however, that it will not tune to 2FC or 6WF. Those interested in a very ingenious method of converting three of the Neutrodyne receiver valves into a P.1 circuit for the high waves are, however, recommended to read "Wireless Weekly," dated September 24th, 1925.

The World's Finest "B" Battery

and its Seven Points of Excellence

- 1. ECONOMY.** These batteries will give trouble free service for years with only a minimum of attention. (See Point 4.) When dry batteries run down they are USELESS and are THROWN AWAY. The average Listener-in spends £5 per annum in Dry Batteries. Philco Rechargeable "B" Batteries CAN BE RECHARGED FOR A FEW PENCE. The initial cost plus a few pence a year for charging is the only cost.
- 2. GLASS CELLS.** With acid tight sealed covers. Safe for use anywhere in your home.
- 3. MAHOGANY FINISHED CABINET.** Beautiful and Decorative.
- 4. CHARGE INDICATORS.** Exclusive Philco Feature that tells all conditions of charge and discharge. No more bothering with old-fashioned hydrometer or guess-work charging.
- 5. TREMENDOUS CAPACITY.** Double that of ordinary "B" Battery. Needs recharging only every 2 or 3 months, and filling with water only once every season.
- 6. EASILY RECHARGED.** With new Noiseless Charger—just a throw of a switch—a plug in the socket. No noise—impossible to overcharge. Recharging costs only from 2d. to 5d.
- 7. DYNAMIC FEATURE.** Insures your getting a fresh new Battery. The life of a Philco Radio Battery does not start until you or the Dealer pours in the electrolyte.

New
Shipments are
Landing This Week



Owing to the tremendous demand, it is advisable for the trade to place orders NOW

Price £8/15/0 (Replaces 90 volt Dry Battery)

IT IS MONEY SAVED!

Perusal of the above Seven Points will convince one beyond all doubt that an Accumulator "B" Battery is the most economical means of obtaining H.T. Supply.

With ordinary care a Philco "B" Battery will give trouble free service for a minimum period of 10 years. During that time you will have spent £50 in dry batteries and have received indifferent results. IT SPEAKS FOR ITSELF!

PHILCO
DYNAMIC RADIO
BATTERIES

PHILCO
DIAMOND GRID
BATTERIES

Stocked by all Dealers in Town and Country.

Trade enquiries only to

PHILCO BATTERY CO., 280 Castlereagh St., Sydney. 35/27 Queen's Bridge Street, Melbourne.
26 Leigh Street, Adelaide.

the ear. This also takes the form of chords of wire.

The second necessity is an instrument for rendering the received vibrations intelligible to the operator at the receiving station. A number of such instruments have been devised, and they are usually called detectors or receivers. The chords of wire, whether used for transmitting or receiving, are called aeriels or antennas. The joint operation of sending and receiving messages may be described quite simply as follows:—

Electricity is pumped into the transmitting aerial, causing it to vibrate at any desired rate. Resulting from these vibrations, waves of energy radiate in all directions through space. Some of these waves impinge upon the receiving aerial and vibrate it at exactly the same rate as the transmitting aerial. The received vibrations are then, by means of a detector, converted into sound in the telephone or loud speaker, as the case might be.

In wireless telegraphy the supply of electric current to the aerial is controlled by a Morse Key. In wireless telephony, however, the current that flows into the transmitting aerial is controlled by the speaker's voice, per medium of the microphone. The current that goes to the aerial depends upon the quantity of electricity that flows through the powdered carbon. This in turn depends upon the compactness of the carbon. When the carbon is loosely packed, the minute particles are slightly separated from one another, and this has the effect of increasing their resistance to electricity, with the result that only a small current can pass through.

Similarly when the carbon particles are packed tightly together, they offer a low resistance to electricity, and a big current can get through. Thus by altering the pressure of the two discs it is possible to control the amount of electricity that flows in the aerial. This is what actually happens in practice: The energy waves that come from the speaker's or singer's throat impinge upon one of the microphone discs. If the waves are strong, viz., if the voice is loud, the discs will be forced together, the carbon will be packed very tightly, and a big current of electricity will flow in the aerial. If the waves are weak the aerial current will be correspondingly small. Moreover, if the waves follow each other rapidly or slowly, viz., if the pitch of the voice is high or low, the particles of carbon will be crushed and loosened at a similar rate, and the supply of current to the aerial will be altered accordingly. All the variations that occur in strength and pitch of the voice are thus reproduced accurately as variations in the aerial current.

These current vibrations in turn influence the radiated waves, which reproduce them again in the form of a varying or vibrating current in the receiving aerial. The detector then enables this cur-

WHAT I SEE & HEAR

It is so very rarely that one gets anything for nothing that I was pleasantly surprised to receive from the Burgess Battery Company a copy of their Index of Radio Broadcasting Stations.

Over in America this publication is sold to the radio public for 25 cents and on settling down to look through the pages, I soon concluded that it was none too much.

My friends tell me they will forward, with pleasure, absolutely free, a copy of this book to any radio enthusiast in Australia, and I advise all and sundry to take advantage of this offer because they will find that from cover to cover there is matter galore, both informative and instructive.

The adventures of Burgess are well illustrated with photographs and the picture of a dog team starting across the snow wastes of Alaska or the Yacht Speejacks lying in a sunlit lagoon on the South Seas impresses upon one the "Romance of Wireless."

It is surprising to learn that there are over 500 broadcasting stations in the United States, and—there they are—all set out with their Call Signs, Wave Lengths, State of Location, and Owner's Name.

Canada has over 40 stations, all of which are described as above and then we are told all about broadcasting conditions in Britain, Australia, Germany, France, South America, Belgium, Italy, Spain, and Sweden.

One whole page is devoted to information on testing dry batteries, and from my experience and observations, I am of the opinion, that this is essential. So very few people really know how to satisfy themselves that a battery is really good, that they allow themselves to be put off with all sorts of ridiculous tests when purchasing over the counter.

Then there is an article on "dry cells in Radio" which describes clearly the various functions performed, and advice is tendered on getting the best results. "A," "B" and "C" batteries are dealt with separately and in full.

Technical diagrams and graphs cover four pages, one dealing solely with the characteristics of various commercial valves and their consumption of current.

Added to all this is a World's time chart, which gives the hour in every leading city in the world, and amateurs who work a lot with U.S.A. and Canada will find this invaluable, because those two countries are dealt with in detail, being divided into sections showing "Pacific," "Mountain," "Central," "Eastern," and "Inter-Colonial" times.

The Burgess Battery Company, whose Sydney offices are at 280 Castlereagh Street, will be very glad to send, post free, a copy of this booklet to any radio enthusiast and my recommendation is that you get in early.

Using this apparatus one is able to obtain both "A" and "B" currents direct from the House Service Supply and with no other operation than the snapping on of the ordinary Electric Light Switch. It seems too good to be true, but there is no doubt about it.—(ADVT.)

rent to be converted into sound in the telephones, from which it ultimately issues as an exact representation of the voice at the transmitting station.

GILFILLAN NEUTRODYNE KITS



Gilfillan, 5 valve Complete Neutrodyne Kit No. N.A.2

Price £17/-/-

GILFILLAN N.A.3 KIT—Contains the essential parts for the construction of a "Neutrodyne." Consists of 3 highly efficient Neutroformers mounted on Gilfillan Low Loss Straight Line Frequency Condensers, and two special adjustable Gilfillan Neutrodons. Wiring diagrams and complete instructions are included.

Gilfillan Neutrodyne Receivers, Kits and Gilfillan Radio Parts



Gilfillan N.A.3 Kit £8/17/6

Obtainable from Leading Radio Dealers, or

Harringtons LTD

NEUTRODYNE KIT NO. N.A.—2.

The "Neutrodyne" has never been equalled for selectivity. Interference is impossible. Long distance reception is marvellous.

The purchase and use of this Kit assure the builder of "Neutrodyne" results. The suggested layout and assembling instructions which are included in each Kit should be followed in detail.

Consists of the following:—

- | | |
|--|---|
| 1 Main Bakelite Panel, drilled and engraved. | 1 R 1125 (6 to 1) Transformer, Special. |
| 1 Sub-Panel, drilled. | 3 R 425 Condensers. |
| 5 R 1075 Tube Sockets. | 1 R 1275C Jack. |
| 10 R 325 Binding Posts. | 2 Neutrodyne Transformers. |
| 10 Binding Post Markers. | 2 Neutrodons. |
| 1 R 525A Rheostat. | 1 M.P.D. By-Pass Condenser. |
| 1 R 525B Rheostat. | 1 .002 By-Pass Condenser. |
| 2 R 175 2 $\frac{1}{2}$ in. Dials. | 1 Grid Leak. |
| 3 R 200 4in. Dials. | 1 .0025 Grid Condenser. |
| 1 R 1125A (8 $\frac{1}{2}$ to 1) Transformer, Special. | Wiring Diagram and Plan. |

Wholesalers and Retailers

Photo. and Radio Warehouses

Sydney 356 George Street
 Katomba Katomba Street
 Melbourne 268 Collins Street
 Brisbane 93 Queen Street
 Adelaide 10 Rundle Street
 Wellington, N.Z. . . 42 Willis St.
 Auckland, N.Z. . . 140 Queen St.

ON THE AIR

"X-RADIATION" LECTURES.

Herewith is presented a portrait of Mr. Frank D. Marshall, B.Sc., who commences a series of lectures on "X-Radiation" on March 15. Mr. Marshall is a member of the Roentgen Society. He has specialised in the study of radio activity and its application, chiefly to the treatment of cancer. Mr. Marshall designed at the Public Hospital, Christchurch, New Zealand, the cancer clinic which is regarded as the most modern installation of cancer-



fighting X-ray equipment in Australasia. He recently planned the Cancer Research Committee's (of Sydney) Laboratory for the study of X-Rays in their application to the treatment of malignant diseases. Mr. Marshall has had actual experience in the treatment of patients suffering from malignant diseases by radiation and radium. During the war period he visited England and spent considerable time investigating the clinics and seeing the work that is being done by the leaders of Radiology in England.

ST. PATRICK'S ON SUNDAY.

The church services on Sunday, March 14, will be from St. Patrick's Church, Church Hill (Roman Catholic), at 11 a.m., and from Chalmers Street Presbyterian Church at 7.15 p.m. In the afternoon, at 3.30, there will be a band concert broadcast from Ocean Beach, Manly, when the Manly Municipal Band will entertain not only the thousands who are engaged in sunbaking on the sands, but also the listeners in to 2BL's programme. The artists for Sunday night will be Miss Myra (Gibson) and Mr. Norman Wright.

MORE HOLLYWOOD TALKS.

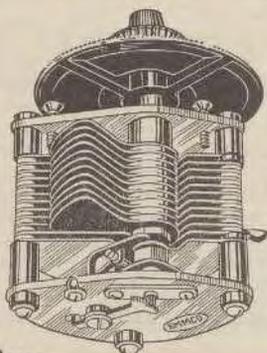
Miss Helen Jean Beegling continues to delight radio audiences with her descriptions of experiences in the movie world in America and elsewhere. Miss Beegling is a delightful speaker, and holds the movie fans breathless as she describes Douglas Fairbanks in his dressing-room, or Norma Talmadge in frocks that make the average listeners in (feminine) gnash their teeth with envy.

SEA TALKS HAVE PRACTICAL VALUE.

Mr. W. Fitzpatrick, who has been lecturing for some time past on various phases and aspects of life at sea from the studio of 2BL, recently received a letter of more than ordinary interest in connection with the talks he has broadcasted. It was from a number of students studying navigation, and who found Mr. Fitzpatrick's talks of definite value from an instructional point of view. These young students, who will probably some day be masters of vessels, are profiting by Mr. Fitzpatrick's descriptions of aspects of sea life that are now very much rarer than when the lecturer was actually passing through them.



Miss Helen Jean Beegling, who is broadcasting a series of talks on "Hollywood and the Studios" every Tuesday evening from 2BL.



Emmco Radio Products

Manufactured by Electricity Meter Mfg. Co., Sydney
**AUSTRALIAN MADE GUARANTEED LOW LOSS
 CONDENSER.**

All Capacities with Direct Vernier.

Built like a Watch.

Most Minute Adjustment.

Absolute Insulation.

Grounded Rotor Metal End Plates.

Straight Line Wave Length. Square Law.

Most up-to-date Low Loss Condenser Made.

Buy



RADIO PRODUCTS

Emmco Jacks, Single	at 2/6
Emmco Jacks, Double	at 3/-
Emmco Jacks, Switch	at 4/6

SEE THEM AT YOUR DEALERS

Columbia Heavy Duty "B" Battery No. 4770



MADE to stand up and deliver the large plate current required by multi-tube sets. Especially economical for sets of four or more tubes, operating at 90 volts or more, and for all power amplifiers.

FACTORY REPRESENTATIVE
ELLIS & CO. (AUSTRALIA) LTD.
 516 KENT STREET, SYDNEY, N.S.W.

Columbia Radio Batteries

Made by the manufacturers of the Famous Columbia Dry Cell



On the left, Mr. Sid Owen, whose items from 2BL are looked forward to. A master of the mandolin, Hawaiian guitar, saxophone, and numerous other instruments, Mr. Owen is a Londoner. From the age of 17 he played lead with the famous Basdarrius in London and Madrid. He was also a popular artist at the Moss and Stoll Empires, London.

HOYT'S ORCHESTRA.

On Thursday, March 18, Hoyt's Imperial Orchestra will be heard, and a comedy entitled "The Laughter of Fools" is being presented from Station 2BL. Mr. Bert Turner, an entertainer of exceptional merit, will be heard, and Miss Millie Hughes and Mr. Ray Beatty in solo numbers and duets complete a particularly attractive programme.

WHAT TO EAT.

Mr. T. Alkin in lectures from 2BL has dealt with the subject of "Vitamins and Dietetics" in so interesting a fashion that many people who hitherto were in the habit of eating everything that was placed before them are now pursuing the elusive vitamins with the set determination of capturing it for health purposes. Mr. Alkin's lectures are invariably entertaining, as well as being of the highest interest from an educational point of view.

THE UKULELE.

On Friday, March 19, Mr. Sid Owen will present a series of musical specialties, including banjo and saxophone numbers. Miss Maisie Barnett, the distinguished contralto, is being heard again after an

absence from the programmes of 2BL for several weeks. Miss Marjorie Skill, who has recently returned from New Zealand, will also figure on the same programme, and the Ahad Duo will be heard in ukulele and steel guitar numbers.

WELL KNOWN ARTISTS.

On Saturday, March 20, Mr. Fred Gooch will be heard in humorous numbers at the piano. The Honolulu Duo will transport the listeners in to the moonlight of Waikiki Beach, the sound of dreamy waters and the soft lapping of the surf through the medium of ukuleles and other Hawaiian instruments. Miss Peggy Alwyn, mezzo-soprano, who possesses a special radio following of her own, will also be heard, and Miss Hilda Boyle and Signor Russo will present an operatic programme of the very highest value.

UNIVERSITY GRADUATES' LECTURES.

Another series of lectures, which it is anticipated will attract very considerable attention throughout Australia, has the general heading of "The Romance of Engineering," and, in connection with this, Station 2BL has been fortunate in obtaining the co-operation of four brilliant young graduates of the Sydney University. The first two speakers will be Mr. C. P. Throsby, B.E., B.Sc., and Mr. B. A. Macdonall, B.E.

MR. JANSON.

Mr. Norman Janson, the well-known baritone, who is so firmly entrenched in public favour, has



Signor Ubaldo Russo, famous baritone from La Scala and other famous opera houses in Europe, a favourite from 2BL.



BANISH ISOLATION!

Have you yet realised what a tremendous difference RADIO can make to your social life?

How it can bring the music of the theatre and the concert hall right into your home?

Have you realised the difference between reception from an ordinary valve and one which is made by

PHILIPS ?

We specially recommend the following two Valves:—

A110. The One Cell Valve. Filament, 1.0 to 1.3; volts, .06 amp. The most remarkable valve yet produced, as it enables you to run each valve for weeks on one Dry Cell, while the volume and tone are exceedingly good.

Price, 17/6 each.

B406. The New Wonder Valve. The B406 is in a class by itself, as it is the first Low Frequency Amplifier which attains a saturation current of 30 milliamps with a filament consumption of only 0.1 amp. at 3½ to 4 volts. Only a Two Cell Accumulator or Three Dry Cells should be used, thus showing a further remarkable saving.

Price, 17/6 each.

Obtainable from all Radio Dealers.

Ask your Dealer for illustrated folder describing these wonderful Valves.

PHILIPS

added new laurels to his musical reputation by reason of his delightful singing with trio accompaniment.

SCOTTISH BASSO.

Mr. Richard McClelland, the great Scottish basso, is also presenting a concert party from EBL on Tuesday, March 16, when Mr. McClelland himself will be heard to great advantage, as well as members of his party.

TOURS BY RADIO.

A lecturer who might be described as an old familiar friend is Miss Mary Edwards, who has returned to the studio of EBL after an absence of 18 months. Miss Edwards is an artiste in water colours and oils who has travelled the length and breadth of the artistic world, and her descriptions of places visited en route are always full of interest.

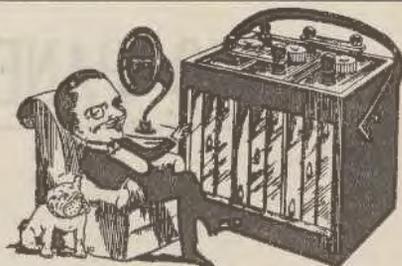
COMEDY SKETCH.

On Wednesday, March 17, Miss Claire Goolay, soprano, will be heard in numbers from her repertoire, and Miss Leah Freedman and Mr. Bert Trumble will present a delightful comedy sketch. Mr. Lance Jeffres, the brilliant tenor, whose reputation grows with every appearance at Station EBL, will also be heard on the same programme. Mr. Jeffres recently distinguished himself singing with the Philharmonic



Freda Stevens, dramatic soprano from SAR.

and other musical societies, and is rapidly achieving a position of most enviable distinction. Other artists on the same programme are Miss Dulcie Williams and Miss Mary Charlton. At 9.30 Mr. J. M. Prentice will deal with the outstanding topics of the week as regards foreign affairs, and will reply to telephone questions. This feature of EBL's programme continues to be a speciality that is thoroughly appreciated by the listeners-in.



Britain's BEST Batteries

are the outcome of 35 years' assiduous research by

PETO & RADFORD

who now enable you to enjoy worryless wireless by means of their

'Gravity Float' Batteries

in which the little coloured floats indicate the state of discharge and warn you of the approaching necessity for recharge.

For full particulars of these interesting batteries, write to our Factory Representatives:

John Arnold,
Degraives Buildings,
Degraives Street,
Melbourne; and

Box 1459,
30, Courtney Place,
Wellington,
New Zealand.

Announcement of Peto & Radford
(Proprietors: Pritchett & Gold and E.P.S.
Company, Ltd.),

50, Grosvenor Gardens, Victoria, London, S.W.1.

GEORGE FIELD

297 HUNTER STREET, NEWCASTLE
(Phone: 1185), and at Hamilton

Your mail orders despatched same day at lowest ruling prices. Write for lists.
SPECIAL OFFER. 5 watt Transmitting Valves guaranteed in perfect condition. 17/6.

THE LARGEST AND OLDEST RADIO SUPPLY HOUSE OF THE NORTH.

RADIO PANELS

To those who are about to build their own Radio Set, we submit the following. These prices of Bakelite we would mention are the lowest prevailing in Australia.

BAKELITE

Cut to any desired size

1/8in. $\frac{1}{2}d.$ PER SQUARE INCH.

3/16in. $\frac{3}{4}d.$ PER SQUARE INCH.

3 Coil Mounts (British Manufacture)	7/6
5 Valve Neutrodyne Kits, panel drilled, complete with everything ready to build	£12
Accuratune Ultra-Vernier Dials, each	25/0
Bakelite Valve Sockets (special line), American, each	3/0
Neutron Crystal, "The Crystal with Valve Power," each	2/3

Mick Simmons Ltd

THE WORLD'S GREATEST SPORTS STORE
Headquarters: HAYMARKET, SYDNEY

Before you
Expend
Money on
Radio
Equipment
Consult
Anthony
Horderns'
Wireless
Experts.

Your inspection of the big display of everything that is new in the world of Wireless, is invited.

(Wireless -- Second Floor)

Anthony Hordern & Sons
Limited,

Erickfield Hill, Sydney

Phone City 94

Box 2711 G.P.O.

RADIO QUESTIONS NIGHT.

On Monday, March 15, Mr. Montgomery Stuart, these distinguished elocutionist, will present a sketch number, and Mr. Charles MacLurean will answer questions in regard to wireless problems. Miss Loutys Lescaut, the French soprano, will also be heard in English and French numbers.

LIGHT OPERAS.

Before appearing in the Gilbert and Sullivan productions, most of the artists engaged by J. C. Williamson Ltd. to appear in the light operas will be heard through 3LO. Miss Vera Savage is among their number, and she has already been tested successfully for broadcasting. Her stage experience, in spite of her youth, is rather extensive. Important understudy roles in "Sally," "Good Morning, Dearie," and the pantomime "Humpty Dumpty" were played by her before she had been long in theatrical business, and she is regarded as having a particularly bright future.

2LO TO 3LO.

Mr. Laurence Hulbert, the young English baritone who arrived from Sydney recently, may shortly be heard from 3LO. He was one of the pioneer artists of 2LO London some 4½ years ago, and since his arrival in Australia has been working from 2FC. On the way out from England, Mr. Hulbert spent 18 months in Africa, part of the time being as an actor with the Bence Kelly Company, now in Melbourne. While in Melbourne he will be singing in conjunction with Madame Elsa Stralia.

FIGHTING PARSON.

A real "fighting parson" is to be introduced to listeners in through 3LO in the near future. The Rev. King is one of the best known "padres" who served with the Australian Expeditionary Forces. His adventurous life and his missionary experiences will be of great interest. As he explains himself, he prefers work among men, and for that reason has found himself in plenty of excitement. In the Boer War he was prominent in the front lines, and with the Australian Light Horse during the Great War he took part in many battles in France and Palestine, and was present at the capture of Jerusalem. His experience has not been confined to Australia. The Rev. King has been all over the world. In the United States, England, Canada, Africa, and New Zealand he has carried on his good work.

FARMERADIO DANCE BAND.

On Friday, 12th March, the Farmeradio Dance band will play from 2FC. A theatrical talk by Miss Goodie Reeve, a Talk on Gilbert & Sullivan, baritone solo by David Craven, and a Song Recital by Madame Layton Gauberte.

CRYSTAL PALACE ORCHESTRA.

On Saturday, 13th March 2FC will broadcast items by the Crystal Palace Orchestra. Dance music from the Wentworth. Plays by Walter Hunt. Baritone Solos by R. A. Bartleman and Banjo solos by Harris & White.

PETERSHAM CONGREGATIONAL.

The 2FC morning service on Sunday, March 14th, will be taken from the Petersham Congregational Church. The afternoon service from the Lyceum Hall, and the evening service from the Pitt Street Congregational Church. This will be the first service in the Church since it has been remodelled. The second part of the Studio programme will be given by the studio orchestra and the vocalists will be Miss Joyce Hadley and Mr. Charles Stevens.

WIRELESS OFFICERS.**List of Marine Staff Changes for week ending 4th March, 1926.**

- L. H. Trenn signed off "Merriwa" in Sydney.
- E. Ouvrier (sen) signed off "Change" in Sydney.
- L. H. Trenn (sen) signed on "Change" in Sydney.
- F. M. Basden (2nd) signed on "Change" in Sydney.
- E. W. Burrows (3rd) signed on "Change" in Sydney.
- S. Hamilton (sen) signed off "Bulla" in Sydney.
- E. W. Burrows (3rd) signed off "Bulla" in Sydney.
- L. A. Deleuil (3rd) signed off "Bulla" in Sydney.

MICROPHONIC WELSH.

The Swansea broadcasting station is transmitting fortnightly talks in "Conversational Welsh." English listeners should note that they are accurately tuned-in when the crackle is loudest.—"Wireless World."

All Good Radio Stores Sell

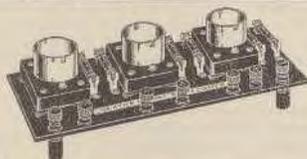
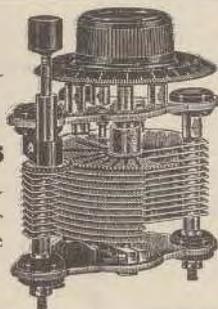


TRUE BLUE VALVES

(Non-Microphonic)
The World's Best
Detector and
Amplifier

Heath Variable Condensers

The Non-dielectric strictly Low-Loss "Distance getters"



Heath Resisto Formers (3 Stage Resistance coupled amplifier)

Tungstalite Crystals
Not affected by handling or exposure. Not a dead spot in Tungstalite.

Sole Agents:
PARSONS & WHITEMORE LTD.,
30 MARKET STREET, SYDNEY.

WAVE TRAP & METER

Price £3/15/- Complete

We have just landed a shipment of them. High grade General Radio Wave Traps for making your set more selective and cutting out interference from other stations. Attachable without alteration to the Set. Also for use as an accurate wave meter for setting your receiving set to any desired wave length. Price, complete .. £3/15/-

"King Quality"

5 VALVE NEUTRODYNE Radio Sets

The most popular of all. Featuring simplified control, and guaranteed to bring in Adelaide, Brisbane, Hobart, Melbourne and any station in Australia at loud speaker strength. Wave length 200 to 550 metres. Without accessories. Price, £25

We have just landed complete stocks of the famous high grade General Radio apparatus. Pay a call to our Wireless Shop and see them for yourselves. All accessories are included. Prices are very moderate.

RADIO DEPT 22 YORK STREET

DAVID JONES'

FROM HERE AND THERE

FROM JOAK.

Mr. H. Pertzelt, of Wodonga, Vic., has just had a letter from T. Sagana, manager of the Japanese Broadcasting Station JOAK, situated at Tokyo. The letter mentions that JOAK operates from 9 a.m. to 10 p.m. daily, such items as news, lectures, English courses being broadcasted. From 7.30 p.m., entertainments, consisting of Japanese music, Japanese orchestras, songs, foreign music, symphony orchestras, jazz, soloists (violin, 'cello, etc.), are put out.

JOAK operates with a power of 1kw on 375 metres, Osaka (JOBK) on 385 metres, and Nagoya (JOCK) on 365 metres.

Reports of reception addressed to Mr. Sagana, JOAK, Tokyo Itoso Kyoku, Tokyo, will be appreciated.

MORE LITIGATION IN AMERICA.

Under the title "Sixty Million Dollar Radio Suit Filed by Fessenden," the "Electrical World" of New York states that a suit declaring triple damages amounting to 60,000,000 dollars (£12,000,000) was recently filed in the U.S. District Court at Boston on behalf of Prof. Reginald A. Fessenden, of Chestnut Hill, Mass., against the General Electric Co., the Radio Corporation of America, Westinghouse Electric and Manufacturing Co., Western Electric Co., the United Fruit Co., the Wireless Speciality Co., and International Radio Telegraph Co., under the Sherman Act and Clayton anti-trust law.

The defendants are charged with lessening and finally destroying competition, restraining commerce and injuring the plaintiff through combination and control of wireless apparatus manufacture and use. A list of between two and three hundred inventions, title to which it is contended resides in the plaintiff, is appended to the bill.

EASTERN EUROPE SERVICE.

Marconi's Wireless Telegraph Co. Ltd. have now inaugurated wireless telegraph services between Great Britain and Yugo-Slavia and Bulgaria.

The rates are as follow:—Yugo-Slavia, urgent, 10d. per word, ordinary 3d.; Bulgaria, urgent, 1/- per word, ordinary 4d.

DEVELOPMENTS IN SPAIN.

Spain has a big programme for the future erection of broadcasting stations. By the end of 1927 the country will have no fewer than 21 stations, the largest of which will operate on a power of 15 kilowatts. Seven of the new stations, which are expected to be working in about a year's time, will have a power of from four to eight kilowatts.

Not only will the whole of the country be ade-

quately provided with its own broadcast programmes, but in addition special arrangements are being made to provide for the relaying of international programmes.

BROADCASTING IN KOREA.

It is reported from Seoul, Korea, a country which is under Japanese control, that arrangements have been made for the establishment of a broadcasting station in that city. The prospectus issued by the organising committee states that the broadcasting bureau will make provision for the whole country daily, in both the Japanese and Korean tongues.

The monthly charge for a receiver is somewhat high, but contributors to the capital fund of the board will be granted a 50 per cent. or more reduction, which is to be increased as the number of subscribers increases. As the extension of wireless reception is likely to give rise to a demand for instruments and apparatus, British makers interested in the export trade will doubtless find it worth while to inquire into the possibility of trade in Korea.

TUNING BY WIRELESS.

A piano at Magny (Le Vexin) has been successfully tuned by wireless. A party of music-loving wireless amateurs happened to be touring there. They desired to organise a private concert, but the only piano available was out of tune and generally in bad repair. In their automobile tool-box they found the wherewithal to remedy the latter defect, but there was no tuning fork.

Happily, they had a portable receiver with them. They picked up the Tower Eiffel and caught the keynote of an artist who happened to be playing a series of them on her violoncelle. With this they tuned the piano.

THE MORSE CODE LESSONS.

That the lessons being conducted from 3WW every Tuesday and Thursday from 7.30 p.m. to 8 p.m. on 108 metres are appreciated is shown by the following extract from a letter received from Mr. H. W. Baker, Gladestville:—

"Your method of teaching is ideal for the beginner, and there are several close to me who are looking forward to learning the code. I commenced last year to learn when you were half-way through with the lessons, so it was naturally too fast for me to pick up. Last Thursday night the first audible signal was the letter G, and the whole of the transmission was as clear as a bell. I wish you every success in this effort on the part of the broadcast listener."

DULL EMITTER VALVES

8/6

English Base

0.06 amperes
3 to 4.5 volts

EVERY VALVE
CAREFULLY TESTED
BEFORE DESPATCH

9/9

Standard 199 Base

SPECIAL NOTICE

Every valve is most rigidly tested before despatch in the "Jewell Tube Tester." We do not stock old or worn out valves.

BUY WHILE THE STOCKS LAST

	£ s. d.		£ s. d.
RAYDEX 109 or 201A VALVES, well above standard	0 9 9	BARREL INSULATORS, White Porcelain, each	0 0 4
PHILIPS B400 VALVES, 1 amp. on 4 volts, English or American base	0 17 6	EGG INSULATORS, White Porcelain, doz.	0 1 0
PHILIPS A110 & A100 VALVES, .06 amp. on 1.5 volts, English or American base	0 17 6	BUSWIRE, Square Tinned, in 2ft. lengths, doz.	0 0 11
TRANSFORMERS, E. & C. Audio, 2 to 1.	0 13 6	ELECTRIC SOLDERING IRONS, High Grade	1 4 6
HEADSETS, K. & C. Special, 200 ohms	0 16 6	SOLDER, "Balden" Resin Core, per 18in. length	0 0 3
THREE STAGE R.F. KIT, with full instructions	3 19 0	SOLDER, "KESTER," Improved, per box	0 2 0
TWO VALVE AMPLIFIER, suit English or American Valves	2 10 0	CRYSTALS, Mounted or Unmounted	0 0 6
LOW LOSS CONDENSERS, The Advance, .0005	0 12 6	CRYSTALS, Set of 3 in Box, Unmounted	0 1 8
NO LOSS CONDENSERS, "Pyrex" Insulation, .0005	1 7 0	CATWHISKERS, Two Kinds in Packet	0 0 3
MULTIPHONE PLUGS, Series or Parallel	0 3 3	PANEL MOUNTING SWITCHES, Single Pole Double Throw	0 1 6
MARSHALLSTATS, the best Carbon Disc Rheostat	0 10 6	PANEL MOUNTING SWITCHES, Double Pole Double Throw	0 2 0
AMPERITERS, 190 or 201A Type	0 7 6	C BATTERIES, Guaranteed Fresh Ever-ready	0 2 9
RHEOSTATS, Ormond, 10 ohms	0 1 2	B BATTERIES, Do., 60v. 18/4, Adv. 12/5, 30v.	0 0 6
		B BATTERIES, Triple Size, "Diamond," 45v. 20/4, 60v.	1 5 0

Country Customers Note: We don't keep you waiting. Ours is a same day service where possible. We pay carriage on goods to the value of 10/- and over except on Batteries and Loud Speakers.

"Yours for Lower Prices."

The ECONOMIC
28 Royal Arcade
SYDNEY

Phone M 3049

RADIO STORES
569 Hunter St. West
NEWCASTLE

Phone, Newcastle 1622

GOOD RESULTS WITH REINARTZ.

Very good results are claimed for the Reinartz receiver described by "Insulator" in "Wireless Weekly," June 5, 1925, by W. J. Ellis, of Alexandria, who in a letter to us states he is able to tune-in 3LO and 5CL without aerial or earth.

MASS PRODUCTION.

According to an Australian recently returned from abroad, the Marconi Co. (England) is turning out ten complete broadcasting stations every week to the order of European companies.

HOWLING LOUD SPEAKER.

Many broadcast listeners are not aware that the position of a loud speaker with relation to the receiver has any effect on the reception. In many cases where a loud speaker is placed on the same table as the receiver, it will commence to emit a soft moaning sound which quickly builds up into a loud howling noise to the annoyance of everyone present.

This trouble somewhat puzzles the beginner, but its cause can be very easily traced and remedied. The primary cause is due to the fact that the type of valves most commonly used nowadays have a very thin and fragile filament, which is easily set into mechanical vibration by accidental jolting. In the same way, when the loud speaker is placed near the set, the sound waves from it are also quite sufficient to set the filaments into vibration, which, by producing a sympathetic variation in the plate circuits, causes the low howl to be emitted from the loud speaker.

This howl, by causing new and stronger sound waves to strike the valves, is again repeated back

Some Months ago Mr. Howell presented to readers of "Wireless Weekly" a circuit called the Howell Reinartz. Since that date he has been flooded with letters from all over Australia asking for further particulars. Some have sent a stamped addressed envelope, but others unfortunately have overlooked the fact that besides the time spent in answering queries they have put Mr. Howell to an appreciable expense by neglecting to forward the necessary stamps for their replies.

We know Mr. Howell to be one of those keen radio enthusiasts, who is always willing and ready to give what advice he can, but we feel sure that our readers will agree that he is quite within his rights in requesting a stamped, addressed envelope accompanying all letters, concerning his receiver, which call for a reply.

to the loud speaker, and gradually a roar builds up, which only ceases when the loud speaker is moved to a sufficient distance from the receiver to prevent the sound waves agitating the electrodes of the valves.

Where valves are enclosed inside a cabinet this trouble is less prevalent, but in all cases it is wise to carefully experiment with the position of the loud speaker.

LONG DISTANCE ON CRYSTAL.

Is the reception of 3LO in Sydney on a crystal receiver a freak? In "Wireless Weekly," Feb. 26, we published reports of crystal reception of 3LO. We have now had further reports from readers.

E. W. Clucher, Annerley Road, Annerley, South Brisbane, writes stating that he consistently receives 3LO on various types of crystal sets. Our correspondent also states that he is satisfied his results are not due to heterodyning, and that on Friday, Feb. 26, he was successful in receiving the programme relayed from Bullarat by 3LO. Reception such as this is, to say the least, wonderfully good.

Writing from Douglas Park, A. Veness states he also receives 3LO regularly on crystal. Usually the station becomes audible about 8.45 p.m., and is received well from then onwards. While Douglas Park, according to Mr. Veness, is regarded more or less as a dead spot, and there has been some difficulty in raising 2BL and 2KY, no trouble at all is experienced with 3LO.

These reports are decidedly interesting, and we would be glad to hear from other readers getting similar results.

WGY RECEIVED AT SOUTH COAST.

Albert E. Wright, Coledale, South Coast, writes mentioning that he received WGY, the American short wave broadcasting station, on Wednesday, Feb. 24, from 5.25 p.m. to 7 p.m. Gramophone records were broadcasted for the benefit of overseas listeners. Reception throughout was good, but Morse stations interfered slightly. Mr. Wright used a receiver with a detector and one stage of audio.

BROADCAST TOURING SERVICE.

A wireless touring bureau for the benefit of motorists has been opened by the WBBM Broadcasting Station, Chicago. The bureau, which is under the direction of an experienced tourist and traffic expert, broadcasts information concerning road and weather conditions, besides planning tours for individual listeners.

WANTED.—All kinds Secondhand Wireless Sets Parts, Speakers, etc. Best prices given. JACK RAPKEN, 16 George Street West. MW 1201.

STOP, LOOK, & LISTENEnglish 4000 ohm Headphones,
15/-

Marvelous Talking Tape, 7/6

The Famous English "FOLMO"
Transformer, 10/-Complete Parts for Loose Coupler
Sets, 11/6.

Why not increase the volume of your Crystal Set with our Single Stage Amplifier, complete with everything ready for use and composed of dependable parts for £3/10/-.

Neodyne Kits, 16/6 & 27/6.

Valve Sets and Parts sold on terms if required.

MODEL ENGINES & PARTS.**Slingsby & Coles Ltd.**

The RELIABLE RADIO HOUSE,

482 PITT STREET
(under the Railway, opposite
Marcus Clark's).**HOWELL'S
SALE & EXCHANGE**Large Variety Loud Speakers from 35/- to £8.
Hear them on music.

	s.	d.
Jefferson Star Transformers	17	6
.0005 Vernier Condensers	11	6
30 ohm Rheostats	2	9
Panel Wire, per doz.	1	0
Egg Insulators, per doz.	3	0
Bull Nose Insulators, per doz.	3	0
12 Point Inductance Switches	2	6
Single Jack	1	9
Double Jack	2	0
Tunatron 201A Valve	9	9
Standard	1	6
Columbia Cells, No. 6	2	6
Bakelite, cut any size, per square inch		2

**HOW TO MAKE THE HOWELL REINARTZ STILL MORE
SELECTIVE**YOU CAN'T IMAGINE HOW GOOD IT REALLY IS.
IF INTERESTED, CALL IN AND SEE US.**19 BARLOW STREET, SYDNEY**
Open till 9.30 Friday Night

Phone MA 1133

"WETLESS" FIXED MICA CONDENSER

New and improved features are incorporated in the Wetless high quality fixed mica condenser.

WETLESS CONDENSERS are synonymous with highest grade workmanship, freedom from moisture, and the best quality materials.

A TYPE.	B TYPE.	B TYPE.	B TYPE.
.0001	.0001	.003	3/-
.00015	.00025	.004	3/6
.00025	.00035	.005	4/-
.0003	.0008	.006	5/-
.0005	.0005	.0075	5/-
.001	.001	.01	7/6
.002	.002	.0025 with clips	3/-
1/8 each.	2/6 each.		

"WETLESS" Condenser Clip, 2/- each.

No need to solder condenser when using this condenser clip: capacities can be changed in a few seconds.

Invaluable to the Experimenter.

Remember the "WETLESS" Fixed Condenser has the highest grade Ruby Mica Dielectric, not paper. So SPECIFY "WETLESS."

AUSTRALIAN MADE.

Manufacturer:

Phone: Kog. 1155.

J. WETLESS, Bexley, N. S. W.**Wm. Lambert Hamilton****Radio Specialist**Bring your troubles to me.
What I will do for you.

I will remodel or re-wire your receiver, making every valve give of its best. Let me modernise your receiver.

I will build you a set to suit your local conditions.

I will answer any enquiries immediately.

My charges will be moderate.

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.

I am at your service in any radio wants.

City address:

VICKERY'S CHAMBERS,
82 Pitt Street,
SYDNEY.

Phone: B4543.

Private address:

16a Ness Avenue,
Dulwich Hill.

MR. FISK RETURNS.

To welcome home Mr. G. Mason Allard, Chairman of Directors of Amalgamated Wireless (A'sia) Ltd., and Mr. E. T. Fisk, Managing Director of that Company, a luncheon was tendered to them by Sir William Vieux, K.B., C.B.E., at the Hotel Australia, Sydney, at 12.45 p.m. on Feb. 26.

Mr. Mason Allard, with Mr. Fisk, have been absent from Australia for eight months, principally in London.

Mr. Mason Allard represented the Commonwealth Government on the Imperial Wireless Services Committee in London, and as Chairman of Directors of Amalgamated Wireless (A'sia) Ltd. made preliminary negotiations for the conduct of the company's beam service. He and Mr. Fisk also carried out negotiations with the British Government in connection with the establishment and control of a beam station in England to communicate with the Australian beam station now in course of construction at Ballan. Mr. Fisk also investigated the latest developments of broadcasting, beam wireless communication, and many other phases of wireless while in Europe, Canada, and the United States.

Among the guests were Sir Mark Sheldon, Sir Henry Braddon, Sir Keith Smith, Sir Clifford Love, the Hon. J. A. Murdoch, M.L.C., J. O. Fairfax, Esq., George Wright, Esq., George A. Parkes, Esq., J. R. Dryhurst, Esq., C. M. C. Shannon, Esq., Herbert Ross, Esq., Justly Rawlings, Esq., Edward Hirst, Esq., C. H. Hughes, Esq., O. C. Beale, Esq., F. N. Yarwood, Esq., Charles Lloyd Jones, Esq., James Kell, Esq., James M. Dunlop, Esq., E. Wunderlich, Esq., R. B. Hungerford, Esq., C. P. Bartholomew, Esq., R. M. Clark, Esq., S. F. Newlands, Esq., E. G. Knox, Esq., J. N. Grace, Esq., A. C. Parsons, Esq., Campbell Jones, Esq., H. A. Russell, Esq., G. V. Oldham, Esq., C. E. Norman, Esq.

CARELESS USE OF LOUD SPEAKERS.

A question of much discussion at the present moment is the unruly use of loud speakers on receiving sets in many of the Brisbane suburbs. If matters continue as they are, there will soon be many hundreds of people in Brisbane who will decide that radio is not all that it is cracked up to be. This will be felt very hardly by the traders, as a boom in radio business has been expected with the opening of the new station, according to our Brisbane correspondent.

Despite the annoyance which they cause in the district, many people like to possess themselves with sets capable of telling the world what is on the air, and produce sounds more like an engine letting off steam than the music of the gods. This doesn't help broadcasting any.

IRISH BROADCASTING.

Last year about 3000 licenses were issued in the Free State, while in Belfast, which is served by the British Broadcasting Company, there were no fewer than 20,000, a figure it is hoped to reach in the Free State within the next two years.

It has been officially estimated that the annual cost of running the Dublin station and the projected Cork station will be something like £20,000.

Not until that amount has been subscribed by license holders will it be possible to approach the question of establishing relay stations at such centres as Athlone and Limerick.

B.S.A. ENTERS RADIO.

The announcement just made by the B.S.A. Company (England) that they have entered the wireless field is undoubtedly the most important of recent trade events. While it will be of undoubted interest to the motor and cycle trade, it will, we know, be of particular interest to the wireless trade, since the entry of such a world-famous firm as the B.S.A. Company cannot but add strength to the industry. The new B.S.A. Company which has been formed to market the new B.S.A. products will be known as B.S.A. Radio Ltd. (proprietors, the Birmingham Small Arms Co. Ltd.).

The world-wide reputation of B.S.A. has been built on the high quality and consistent reliability of B.S.A. products, and as a consequence it is confidently predicted that before long the B.S.A. name will be one of the outstanding names in the wireless industry.

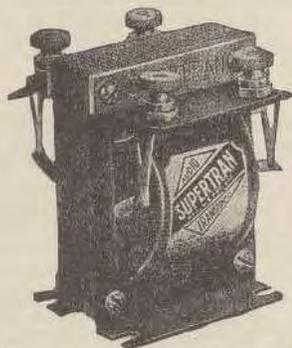
It is also interesting to note that by an arrangement with the Standard Telephones and Cables Ltd. (formerly Western Electric Co. Ltd.), B.S.A. Radio Ltd. will have the benefit of that firm's long experience in research and development in broadcast reception, so that the trade may feel sure that all B.S.A. radio broadcast apparatus will incorporate the latest ideas and developments.

The B.S.A. trading policy which has been so popular with the cycle and motor cycle trades will be followed in the company's connection with the wireless industry. It is not possible at the moment to give details of the B.S.A. radio products, but these will be described in an early issue.

Mr. J. W. Bryan, who is well known as the firm's Publicity Manager, and who has been closely connected with the company's sales departments, will be in charge of all matters relating to sales of B.S.A. Radio Ltd.

Supertran "Mica Insulated"

Audio Transformers



Supertran 25/- each

Ratios $3\frac{1}{2}$ -1
5-1

After exhaustive tests and investigation a new type of insulation, a mica compound, used on the core laminations and bobbins, has been found to eliminate interstage howling, guaranteeing much smoother reception with pleasing clarity of amplification on distant reception. It also allows greater battery voltages to be applied without risk of interwinding breakdown.



FMC 18/6 each

Ratios $3\frac{1}{2}$ -1
5-1

Type 51, 30/-

The Orthophonic Transformer.

Ratio, 5 to 1 only

INTERNATIONAL RADIO CO. LTD.

(WHOLESALE.)

200 Castlereagh St.
SYDNEY, N.S.W.

91-93 Courtenay Place,
WELLINGTON, N.Z.

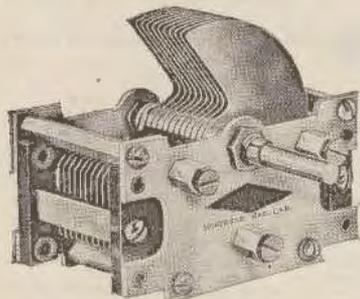
Amongst the Traders

MONTROSE CONDENSERS.

The Burgin Electric Co. Ltd., 340 Kent Street, Sydney, furnish us with particulars of Montrose condensers, for which they are the sole distributors for Australia.

These condensers have all true low loss properties; rigid aluminium frame and all insulation are made with genuine radium, which is placed outside the electrostatic field, allowing maximum efficiency and low loss. Grounded rotors and adjustable bearings give very sturdy constructions and high efficiency.

A further shipment of these have just come to hand, together with a quantity of the famous all bakelite Na-Ald sockets.



THE DE FOREST "H" TUBE.

Now available on the Australian market is the De Forest "H" tube, produced by the well-known American company and marketed in Australia by the International Radio Co. Ltd. It is claimed that efficient performance is obtained with the "H" tube on wavelengths from 1 metre to 200 metres, and that high frequency flash-over does not break down the tube, as all leads are brought out at wider separated places. High plate voltages may be used without fear of damage to any of the elements. Both grid and plate are of molybdenum. No base is provided with the tube, in order to give it the characteristics of a truly low-loss oscillator. Plate voltage, 1000 to 3000; grid bias 50 to 500 volts, depending upon the circuit, grid leak, and plate voltage. Volt current, 10 volts at 2.35 amps. The overall size of the tube is 6 in. x 3 1/2 in.

NEW IGRANIC DEVICES.

We are informed by Noyes Bros. (Sydney) Ltd. that they are landing a wide range of new Igranic components, among these being dual variable condensers, variable condensers for transmitting, micro and vernier balancing condensers, fixed grid leaks, anti-microphonic valve holders, stand-off insulators, and a combined earthing switch, lightning arrester, and lead-in tube.

There will also be available shortly the Igranic six-valve super-heterodyne kits, and if the English papers are to be believed these kits have created a tremendous impression among radio enthusiasts on the other side.

The makers of the famous Brown loud speakers have also produced four new types, amongst which the cabinet type especially will, no doubt, be hailed with enthusiasm.

DUBILIER VARIABLE CONDENSERS.

Variable condensers made by these well known manufacturers are now in stock at Amalgamated Wireless (A/sia) Ltd., and they have features which make them very attractive.

For panel mounting two metal tags with terminal screws are provided for the connections. Connection to the movable plates is made through a flexible phosphor-bronze strip, and safety stops are fitted to



prevent damage to this strip if the indicating dial is taken off. Auxiliary stops are also provided on the indicating dial, thus eliminating all risk of damaging the condenser plates or destroying the calibration by turning the knob violently against the limiting stops.

BURGESS—"FLASHLIGHT—RADIO—IGNITION—TELEPHONE"—BATTERIES

LONG WAVES VERSUS SHORT WAVES.

TESTS FROM EIFFEL TOWER.

The Eiffel Tower high power station is at present carrying out tests on 32, 75, and 17,000 metres, with a view to finding out which are the most efficient wavelengths for consistent working with Australia. The directors of this station, in requesting the assistance and co-operation of all Australian experimenters (per the medium of Mr. Cook, the Government Astronomer), have, without a doubt, paid the biggest compliment that has ever been shown to our amateur movement before.

Transmissions are daily taking place simultaneously on all the above-mentioned wavelengths at 6 a.m. and 6 p.m., Sydney time. Reports may be sent direct to the French station or to Mr. Cook, who, we understand, is compiling a collective report from the data he receives from experimenters. In order that these reports will be of the utmost value to the authorities, those taking part are requested to give as full a detail as possible.

The following suggestions may be useful in making up individual reports:—

(1) Strength of signals on the 32, 75, and 17,000 metres at the 6 a.m. and 6 p.m. transmissions.

(2) The amount of fading, if any, on any one of the wavelengths.

(3) On which wavelength is fading most prevalent?

(4) On which wavelength is static or any other interference most severe?

(5) What is the difference in volume of the a.m. and p.m. signals on short and long waves?

(6) Which wavelength did you find most consistent for readable reception, short or long waves?

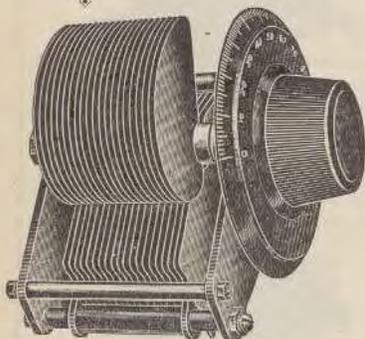
In conclusion, we feel sure that it is unnecessary to request our experimenters to show their appreciation of the compliment paid to us by the French authorities by sending along full descriptive reports of reception obtained over as long a period as possible.

The actual tests conclude this month.



NINE POINTS

THAT MAKE IGRANIC CONDENSERS
THE VERY BEST



The Aristocrat of variable condensers. The IGRANIC Square-law. Designed and built with a real knowledge of Radio requirements. Made in four sizes. 29/6 up.

1. **LOW LOSSES.** Special method of mounting fixed plates reduces dielectric losses to an absolute minimum.

2. **LOW EFFECTIVE RESISTANCE.** Connection to moving plates by means of flexible spiral conductor ensures positive electrical contact and noiseless operation.

3. **EARTHED ROTOR.** Moving plates electrically connected to frame of condenser provides adequate shield and eliminates stray capacity effects.

4. **SMOOTH ACTION.** Ensured by special ball bearings. Facilitates precise tuning adjustment.

5. **SQUARE LAW.** Specially shaped plates give straight-line

tuning relations between dial settings and wavelengths.

6. **ROBUST CONSTRUCTION.** Fixed and moving plates of heavy gauge brass sheet. Perfectly rigid and will not warp.

7. **METAL FRAME.** Adequate shielding and strength are provided by a frame of specially prepared hardened aluminium alloy.

8. **INSTRUMENT FINISH.** Highest quality scientific instrument finish, handsome combined tapered knob and 4-inch Bakelite bevelled dial.

9. **EASY TO MOUNT AND CONNECT.** Drilling templates provided with each condenser. Soldering tags to facilitate making connections.

ONCE YOU HAVE HANDLED THIS CONDENSER YOU WILL USE NO OTHER.

All dealers stock IGRANIC Radio Devices.

SOLE AGENTS:

NOYES BROS.

(Sydney) Ltd.

Melbourne (Pty.) Ltd.

SYDNEY: 115 Clarence Street.

NEWCASTLE: 11 Watt Street.

BRISBANE: Perry House.

HOBART: 145 Macquarie Street.

And at LAUNCESTON; also from J. W. B. Gardan, PERTH.

Sole Agents for BROWN'S Loud Speakers.

Distributors of PHILIPS Valves.

Write for Booklet No. 3, which illustrates and describes the complete range of the famous IGRANIC parts.

Round the Clubs

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

THE LEICHHARDT AND DISTRICT RADIO SOCIETY (2LH).*

The 13rd monthly business meeting of the above club was held at the club rooms, 176 Johnstone Street, Annandale, on Tuesday, 2nd inst. last, at 8 p.m.

The President, Mr. Kirkpatrick, occupied the chair. The club's membership roll was further augmented by the election of two new members. After correspondence was attended to, buzzer practice was partaken of for half an hour. There being no lecture set down for the evening, a paper was read, entitled "Telephone Headsets." This paper dealt with the history and construction of present-day telephones and loud speakers. A considerable amount of discussion then ensued relative to the lecture, after which the meeting resolved itself into a general question evening, and some very interesting information was garnered by various members.

This concluding the business, the meeting closed.

The business set down for Tuesday, 16th, is a club debate, and members can be assured of a very interesting evening.

Inquiries relative to the activities of the society are cordially invited, and should be addressed to the Hon. Sec., Mr. J. G. Arkell, 145 Hereford Street, Forest Lodge.

THE WIRELESS INSTITUTE.

Will readers kindly note that, by special arrangement, the reports of the Wireless Institute of Australia (N.S.W. Division) and Radio Clubs will in future be published in the Amateur Section in "Radio."

2KY RADIO CLUB.

The initial meeting was held on Jan. 12, 1926, with a standing membership of 40. The greatest enthusiasm has rewarded the efforts of the committee in that the body has been growing steadily over the last two months. A number of very interesting lectures have been delivered by prominent radio men, amongst whom are Mr. E. G. Board, of United Distributors, and Mr. W. L. Hamilton.

The regular meetings of the club take place at 8 p.m. each Monday evening, and anyone interested in radio is invited to come along, as the lectures feature some most instructive and interesting subjects, quite apart from the usual discussions of radio clubs. 2KY Club is not a political organisation, but has been founded purely for the imparting and circulation of radio information and the creation of pleasant social environment.

In the near future it is intended to organise social entertainment, when lady members will be invited to become members.

Any correspondence concerning club activities should be addressed to the Secretary at the Trades Hall, Sydney.

THE WIRELESS SOCIETY OF NEWCASTLE.*

The above society held their weekly meeting at their club room, 49 Everton Street, Hamilton, on Tuesday, 2nd inst. The attendance was exceptionally good, and another member was welcomed. A very interesting lecture was delivered by Mr. Swain on "How a Valve Oscillates," and was much appreciated by the members. At the next meeting on the 7th inst. the lecture of the night will be on "Aerials," and an entertaining night is assured to all who attend.

Any reports of reception of transmission put out by the club transmitter will be appreciated. It is working three nights a week on the 90 metre band. Further members will be welcomed, and anyone interested is cordially invited to get into touch with the Secretary, Mr. L. Wilson, 29 Hunter Street, Newcastle, who will be pleased to supply information.

CANTERBURY WIRELESS CLUB (VIC.).

The last meeting of the above club was held at 18 Northcote Avenue, Canterbury, on the 25th ultimo, when the constitution and bylaws of the society were discussed and adopted for the following year. The club received with regret the resignation of Mr. Vanselow, who had kindly lent his residence to the club to hold meetings, and notice is hereby given that future meetings will be held at 38 Northcote Avenue, the residence of Mr. W. G. Robinson, until such time as more central rooms are obtained. A syllabus of lectures for the coming year has been drawn up, and the President, Mr. A. J. Stocker, ASDJ, has agreed to give a series of lectures of assistance to those interested in obtaining transmitting licenses, including theory, regulations, and buzzer practice.

Australian Broadcasting Stations—Schedule of Transmission

Located at	Operated by	Call.	Wavelength.
Sydney, New South Wales	Farmer & Co. Ltd.	2FC	1100 metres
Sydney, New South Wales	Broadcasters (Sydney) Ltd.	2BL	353 metres
Melbourne, Victoria	Aust. Broadcasting Co. Ltd.	3LO	371 metres
Melbourne, Victoria	Associated Radio Co.	3AR	484 metres
Perth, West Australia	West Australia Farmers Ltd.	6WF	1250 metres
Hobart, Tasmania	Associated Radio Co.	7ZL	410 metres
Brisbane, Queensland	Queensland Radio Service	4QG	385 metres
Adelaide, South Australia	Central Broadcasters Ltd.	5CL	395 metres

BURGESS—"THEY'RE WITH McMILLAN EXPEDITION"—BATTERIES

FOUR SENSATIONAL OFFERS!

Payment of £1 will secure immediate delivery in the Metropolitan area, of any of our Special Offers.

£1 DOWN
and
5/-
WEEKLY

WONDERFUL COMBINED OFFER.

Do you realize that for £4 down and £1 a week we will deliver to your home a Super Cabinet Tonophone, a Valve Wireless Set, a Pathé Home Cinema and one of Heaton & Smith's Lift-on Billiard Tables?



OFFER NO. 1
SUPERB CABINET
TONOPHONE

Noted for its remarkable reproduction, its tonal value and excellent non-scratch features. A sign of workmanship in a handsome highly polished cabinet. £1 down secures immediate delivery balance 5/- weekly.



OFFER NO. 2
VALVE WIRELESS

SET on an exclusive unit system. This set is built in a handsome foundation cabinet and has a valve set with headphones and a loud speaker permanently built in. Applicable to all classes of reception. Extra valves can be added to a full strength 4 valve set without reconstruction.

£1 down secures immediate delivery. Balance 5/- weekly.



OFFER NO. 3

Pathé Home Cinema at £18-18-0 or a Perfect Pathé Cinema Camera at £24-0, enabling you to photograph your friends in living pictures that become permanent records. Show these with a programme of Pathé Educational, Dramatic and Comic films in your own home. Thousands of films to select from which can be screened up to 8 ft x 6 ft. £1 down secures immediate delivery. Balance 5/- weekly.



OFFER NO. 4

Heaton & Smith's Lift-on Billiard Table. Complete for this game of Billiards with cues, balls and marking board. £1 down secures immediate delivery. Balance 5/- weekly.

Call at once with a Pound Note and we will deliver immediately to your Home.

HOME RECREATIONS LTD.

388 GEORGE STREET (Opp Beard Watsons)



Broadcasting



4QG

QUEENSLAND RADIO SERVICE.

Wavelength, 325 metres.

FRIDAY, MARCH 12.

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: Overture: The Flattace (Covers). The Savoy Orchestra (conductor Mr. A. H. Featherstone); soprano solo: Good-bye (Toot), Mrs. T. Thornton; ten minutes of Humour by Mr. Syd Beck and Mr. Victor Gausson; contralto solo: Love's Garden of Home (Hudson Wood); Miss Winifred Anderson; Tangled Tunes, Selection (Katsibay), The Savoy Orchestra; Aeolian Vocalion Selections (by request), soprano solo: (a) Henri's Desire (Singson), (b) Follow Yvette (St. Helier), song by Miss Gladys Mounieff; violin solo: Suzanne (Victor Herbert); Mr. H. Suot MacCallum; fox trots (a) My Mauney Knows (Costa), (b) Just Because of You (Turk), The Savoy Orchestra.

8.50—Weather Information officially supplied by the Commonwealth Weather Bureau.

8.55—Announcements.

9—Valse: Sialletta (Von Blon), The Savoy Orchestra; soprano solo: For All Eternity (Masterson), Mrs. T. Thornton; Duo Art Selection (by request), Let Me Call You Sweetheart (Friedman); Ten minutes of Harmony by The Sparklers; Wildflower selection (Youmans and Stokath), The Savoy Orchestra; contralto solo: Adieu (J. Spurio), Miss Winifred Anderson; March: Washington Grays (Gaufal), The Savoy Orchestra.

9.55—The Daily Mail" News Service.

10—Close down.

SATURDAY, MARCH 13.

No Midday 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.

2.5—From the Studio. Baritone solo. Song of the Bow (Alward), Mr. Reg. Best; Hawaiian Instrumentalists: Nightgale, The Kalua Trio; contralto solo: Little Words (Adams), Miss Nance Smith; Aeolian Vocalion selection (string and piano): Au dou Fishling (Grigg), soprano solo: Biao But-collies (Dickson), Miss Olga Harris; vocal duet: Wert Thou in the Cold Blast (Mendelssohn), Mr. Reg. Best and Miss Nance Smith; Hawaiian Instrumentalists: Hawaiian Bluebird, The Kalua Trio; contralto solo: Summer Rain (Wilby), Miss Nance Smith; Aeolian Vocalion selection, Band Number: Williams Tell Overture (Rossini); baritone solo: Rip Van Winkle (Carroll), Mr. Reg. Best; Hawaiian Instrumentalists: Kalua March The Kalua Trio; soprano solo: Canterbury Bells (Carroll), Miss Olga Harris.

8.30—Weather Information officially supplied by the Commonwealth Weather Bureau.

8.55—Announcements.

9—From Lennon's Ballroom. By courtesy of the Proprietors of Lennon's Hotel, an hour and a half's choice music by Miss May Douglas's (Vice Reg) Orchestra will be relayed from Lennon's Ballroom.

10.30—From the Studio. "The Sunday Mail" News Service; Close down.

SUNDAY, MARCH 14.

The complete morning service from the City Tabernacle (Baptist) will be relayed.

10.55—Tune-in.

11—Organ: Estroli; Andante from Violin Concerto (Mendelssohn); Mr. Sidney May; Hymn: Scripture and Prayer; Hymn: Offertory; Organ: Prelude (Chopin); Hymn: Motet; Hear my Prayer (Mendelssohn); Sonata: The Appeals of a Straight Road, the Rev. W. C. Page; Recessional: Chorus from Requiem (Brahms).

Afternoon Session.

The Band Concert provided in the Botanical Gardens will be relayed.

3.10—Tune-in Signal.

3.15—Band Concert.

3.30—Close down.

Evening Session.

The complete service will be relayed from the City Tabernacle.

6.55—Tune-in Signal.

7—(a) Melody (Halsey), (b) Andantino (Azzurro-Lodi), Children's pullen.

7.35—Interlude: Benedictus (Schubert); Hymn: Scripture; Solo: The Lord is My Light (Al-lisen), Mr. Jack Arkhina; Prayer; Hymn: Offertory; Organ: Melody (Halsey); Anthem: By Babylon's Walls (Gounod); Sonata: God's Day of Surprises, the Rev. W. C. Pope; Solo: Thanksgiving (Cowen), Miss Eva Bowen; Vesper: Abide With Me; Recessional: Triumphant March (Lennons).

Band Concert.

At the conclusion of the Church Service, the concert provided in Wickham Park by the

Greater Brisbane Municipal Concert Band will be relayed. The Band will play: Overture: Le Châtel de Bruce (Anser); duet: (Flute and Clarinet): Lu, Here the Gentle Lark (Bishop), Messrs. H. Hall and D. Williamson; Song: Brisbane River Dreams (Meta Macken), Mr. Lou Lambert; Fantasia: Irish Emeralds (Gould) (in honour of St. Patrick's Day); Paderewski: Menuet; Song: My Old Shako (Trotter), Mr. Lou Lambert; Fantasia from the opera "Pagliacci" (Leon-cavallo). Close down.

MONDAY, MARCH 15.

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.

The Children's Session.

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—From the Studio: Contralto solo, Three Fishers (Hulkah), Miss Dorothy Brown; lecture, Commercial Aviation, by Capt. Jack Treacy; group of banjo numbers, by Mr. N. Gould; baritone solo: (a) Because (d'Hardelot), (b) Mary of Argyll (Nelson), Mr. Gerald Cushman; soprano solo, Vale (K. Russell), Miss Jean Jarrott; group of banjo numbers by Mr. N. Gould; contralto solo, Robin Adair (Old Scotch), Miss Dorothy Brown; piano solo, Appassionata, Sonata 1st Movement (Beethoven), Mr. Arthur Sharman; soprano solo, Down the Lane (Gwyther), Miss Jean Jarrott.

8.50—Weather information officially supplied by the Commonwealth Weather Bureau.

8.55—Announcements.

9—From the Band Room: An hour of music by the South Brisbane City Orchestra, under the leadership of Mr. J. W. Ferguson. The band will play overture, Zampa (Herold); idyll,

BURGESS—"FOR EVERY CIRCUIT AND VALVE"—BATTERIES

Dawn (Matti; clarinet solo, Tannhauser (Wagner), Mr. H. Devlin; waltz, Rube's Rhapsody (Luglin), Nos. 3 and 4; selection, Il Trovatore (Verdi); march, Stars and Stripes (Souza).

10—From the Studio: The "Daily Mail" news service. Close down.

TUESDAY, MARCH 16.

Midday Session.

12.55—Tune-in signal.

1—Market reports supplied by Council of Agriculture; Stock Exchange information supplied by the Committees of the Brisbane Stock Exchange; weather information supplied by Commonwealth Weather Bureau. "Daily Standard" news service. Close down.

Night Session.

8—Tune-in to the Tivoli Theatre.

8.5—From the Studio: Lecture-re. Photography, by Mr. F. L. South (Manager, Kodak Ltd.); baritone solo, Desires (Ollon), Mr. Les. Faulkner; Scotch comedian, Jean (Lauder), Mr. W. Donald, Senr.; harmony duet, Tattling Along (Saunders), Messrs. L. Faulkner and W. Donald, Junr.; instrumental number, Sweet Man (Lange), the Studio Trio; tenor solo, Ictivus (Huhn), Mr. W. Donald; Scotch comedian, Mary (Donald, Jr.), Mr. W. Donald, Senr.; harmony duet, Little Pal of Long Ago (Dixon), Messrs. Les. Faulkner and W. Donald, Junr.; baritone solo, The Flower that You Gave Me, Mr. Les. Faulkner; tenor solo, The Scottish Immigrant (Home), Mr. W. Donald.

8.50—Weather information officially supplied by the Commonwealth Weather Bureau.

8.55—Announcements.

9—Baritone solo, The Blue Dragons (Russell), Mr. Reg. Best; Hawaiian instrumentalists, Hula Hula, the Pacific Trio; contralto solo, Oh, for a Bunch of Song (Alitson), Miss N. Smith; cello solo, Tarranelle (Squire), Miss Petropoulos; soprano solo, The Star (Rogers), Miss Ruth Portraze; vocal duet, Come to the Fair (Martin), Mr. Reg. Best and Miss Nance Smith; Hawaiian instrumentalists, Kawahau (Koukalia), the Pacific Trio; baritone solo, Ben the Busan (Adams), Mr. Reg. Best; contralto solo, The Bitterness of Love (Dunn), Miss Nance Smith; Hawaiian instrumentalists, Honolulu Hula Girl ("Sonny" (Gunn), the Pacific Trio; soprano solos, (a) By My Roses (D. D. Slater), (b) Beloved, it is Morn (Aylward), Mrs. T. Thornton.

9.30—From the Centennial Hall; By courtesy of the lessee, half an hour's music by the Centennial Hall Orchestra will be relayed from the hall. The programme will include one step, The Sammiee are Coming to Town (J. O'Hagan), There Ain't no Pies on Auntie (W. Van Der Decken); fox trot, Jealous (J. Little, T. Blile, D. Finch, Mamma Loves Papa (C. O. Friend, Abel Beer), Mandaly (B. Lyman and Arubheim); waltzes, If the Rest of the World Don't Want You (A. Gerber, D. Dreyer), When the One You Love Loves You (Cliff Friend).

9.55—From the Studio, the "Daily Mail" news service.

10—Close down.

WEDNESDAY, MARCH 17.

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.

The Children's Session.

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 will be held three times weekly.

6.30—Tune-in signal.

6.35—The Children's Hour. Nursery rhymes and music; bedtime stories by "Little Miss Brisbane."

7.15—Close down.

Night Session.

8—Tune-in to the Tivoli Theatre.

8.5—From the Studio: Soprano solo, There's a Land (Mackay), Miss R. G. Husband; Hawaiian instrumentalists, Pua Nokakika, the Kalua Trio; contralto solo, Abida with Me (Liddle), Miss Winifred Anderson; lecture-note for women by Mr. R. Wright; soprano solo, Nightingale of June (Sanderson), Miss Betty Henderson; instrumental number, fox trot, Who Wouldn't Love You (Davis & Burke), the Studio Trio; musical monologue, Dear Mr. Gave (Clarke), Miss Eileen McLennan; Irish folk songs, (a) Danny Boy, (b) Little Irish Girl (Lohr), Miss Anna Burke.

8.50—Weather information officially supplied by the Commonwealth Weather Bureau.

8.55—Announcements.

9—Soprano solo, -A Perfect Day (Jacobs-Bond), Miss R. G. Husband; Hawaiian instrumentalists, Hawaiian Smiles, the Kalua Trio; contralto solo, Irish Folk Song (Foote), Miss Winifred Anderson; musical monologue, A Bunch of Roses (Shaw-Mayer), Miss Eileen McLennan; soprano solo, Mighty Like a Rose (Nevin), Miss Betty Henderson; Hawaiian instrumentalists, Rio Nights, the Kalua Trio.

9.25—From the Tivoli Theatre: By courtesy of the directors of Haymarket Theatres Ltd., half an hour's music by the Tivoli Operatic Orchestra, under the baton of Mr. C. Groves, will be relayed from the Tivoli Theatre.

9.55—From the Studio, the "Daily Mail" news service.

10—Close down.

THURSDAY, MARCH 18.

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.

8.5—From the Studio: Baritone solo, Vale (Russell), Mr. Fred Homer; instrumental number, Minnot (Paderewski), the Studio Quartette; soprano solo, Lo Hara the Gentle Lark (Dishop), Miss Verna Moreom (with flute obligato by Mr. B. Kelly), tenor solo, I Hid My Love (d'Hardelot), Signor

Corti; violin solo, Serenade (Drigo-Auer), Mr. H. Scott MacCallum; vocal duet, Night in Venice, Miss Verna Moreom and Signor Corti; mezzo-contralto solo, Softly Awakes My Heart (Saint-Saens), Miss Margaret Lloyd; instrumental number, Solvieg's Song (Fringel), the Studio Quartette; soprano solo, A Heart that's Free (Rohy), Miss Verna Moreom (accompanied by the Studio Quartette); vocal duet, Misereere Soene from Il Trovatore (Verdi), Miss Verna Moreom and Signor Corti.

8.50—Weather information officially supplied by the Commonwealth Weather Bureau.

8.55—Announcements.

9—From the Band Room: An impromptu programme of music by the Greater Brisbane Municipal Concert Band, under the leadership of Mr. E. Jackson, will be relayed from the band's room.

9.55—From the Studio: The "Daily Mail" news service. Close down.

5CL

CENTRAL BROADCASTERS LTD.
Call Sign: 5CL Wavelength, 395 metres. Input: 5 K.W.

FRIDAY, MARCH 12.

Morning Session (11.30 a.m. to 2 p.m.)
11.30—G.P.O. Chimes.

11.45—Stock Duo Art and Aulian Vocalia recital.

12—G.P.O. Chimes.

12.1—News and Cable Service.

12.30—The 5CL Studio Orchestra will play: Overture; cornet solo; fox trot; instrumental trio; musical waltz; two Teangui dances; cello solo; finale, selection.

1.35—S. C. Ward & Co.'s Stock Exchange Intelligence and Official Weather Synopses and Station Announcement.

2—G.P.O. Chimes.

Afternoon Session (3 to 5).

3—G.P.O. Chimes.

3.1—Relay from Maple Leaf Cafe; Orchestral numbers.

3.45—Broadcast from Studio Serial Story.

4—G.P.O. Chimes.

4.1—Broadcast from Arcadia Cafe; Orchestral numbers. Miss Wily, vocalist.

4.55—Stock Exchange Reports, General Information and Station Announcements.

5—G.P.O. Chimes.

Evening Session (6.50 to 10.30).

6.50—G.P.O. Chimes.

6.51—Balltime Stories for the Children.

7.30—Stock Exchange, Market Reports and Station Announcements.

7.40—Sporting Talk by "Old Timer."

8—G.P.O. Chimes.

8.1—Studio Concert arranged by Miss Marie Hanford, L.A.R., L.T.C.L.

9—G.P.O. Chimes.

9.1—Weather Reports.

9.30—Studio Concert, continued.

10—G.P.O. Chimes.

10.1—Studio Concert, continued.

10.15—Advertiser News Service.

10.30—Station Announcements; To-morrow's Programme; National Anthem; Good Night.

SAURDAY, MARCH 13.

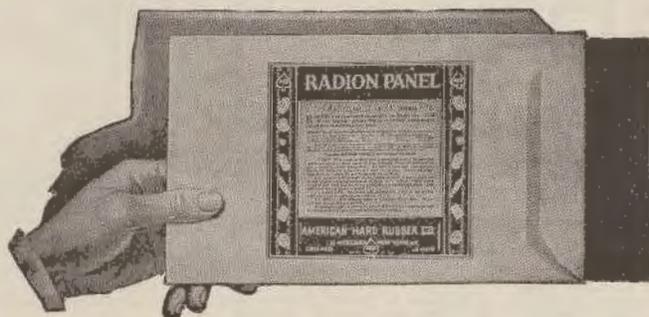
Morning Session: 10.30 a.m. to Noon

10.30—G.P.O. Chimes.

10.51—The 5CL Studio Orchestra will play: Selection; violin solo; fox trot; reciting; waltz; selection; cornet solo; finale, march.

11.45—S. C. Ward & Co.'s Stock Exchange Intelligence, official weather synopses, and station announcements.

12—G.P.O. Chimes.



Built to Order for Radio

RADION has been subjected to the most rigorous tests possible in competition with every other insulating material, and has always proven to be far superior in the four vital requirements, namely:

- 1—Low Angle phase difference.
- 2—Low dielectric constant.
- 3—High resistivity.
- 4—Low absorption of moisture.

Hence, when you construct your receiving set

with Radion Panels and Parts, you are reducing to a minimum the possibilities of failure due to loss or leakage.

Another very important feature of Radion is its workability. Radion can be drilled, sawed, countersunk with ordinary tools, by amateur and professional alike, without fear of chipping, cracking or burring.

The beauty of Radion, too, is unexcelled. It is truly the outward appearance of inner worth.

SEND FOR FREE BOOKLET

"Building Your Own Set"

Our new booklet, "Building Your Own Set", giving wiring diagrams, front and rear views, lists of parts and directions for building the most popular circuits, will be sent free upon request to



International Radio Co., Ltd.

200 Castlereagh
St., Sydney.

91-92 Courtenay Pl.
Wellington, N.Z.

The Supreme Insulation

RADION

PANELS ~ DIALS ~ SOCKETS ~ KNOBS

Afternoon Session

Sporting results when available; also Stock and Art and Aerial Vocalion recitals.

Evening Session: 6.30 to 10.30

- 6.30—G.P.O. Chimes.
 6.31—Bedtime Stories for the Children.
 7.30—Market reports and station announcements.
 7.40—A review of the world's chief sporting events.
 8—G.P.O. Chimes.
 8.1—A dance programme, interspersed with vocal numbers.
 9—G.P.O. Chimes.
 9.1—Weather Reports.
 9.3—Studio Concert—continued.
 10—G.P.O. Chimes.
 10.1—Studio Concert—continued.
 10.15—Advertiser News Service.
 10.30—Station Announcements. To-morrow's Programme; National Anthem. Good night.

SUNDAY, MARCH 14.

Morning Session:

11—Broadcast from Parkside Baptist Church, Divine Service, Pastor, Rev. Bernard E. C. Luck, B.A.

Evening Session:

- 6.30—Bedtime Stories for the children.
 6.35 to 9.15—Science lecture by Mr. H. W. Allison, "The Millennium." From Studio, a programme of vocal and instrumental numbers; Station announcements; To-morrow's programme; National Anthem.
 9.35—Broadcast from St. Batholomew's Church.

MONDAY, MARCH 15.

Morning Session (11.30 a.m. to 2 p.m.)

- 11.30—G.P.O. Chimes.
 11.31—Stock Duo Art and Aerial Vocalion recitals.
 12—G.P.O. Chimes.
 12.1—News and Cable Service.
 12.30—SCL Studio Orchestra will play: Overture; cornet solo; intermezzo; fox trot; waltz; selection; waltz; cello solo; finale.
 1.55—S. C. Ward & Co.'s Stock Exchange Intelligence and Official Weather Synopsis and Station Announcements.
 2—G.P.O. Chimes.

Afternoon Session. (3 to 5).

- 3—G.P.O. Chimes.
 3.1—Relay from Maple Leaf Cafe; Orchestral numbers.
 3.45—Broadcast from Studio; Serial Story.
 4—G.P.O. Chimes.
 4.1—Broadcast from Arcadia Cafe; Orchestral numbers.
 4.35—Stock Exchange Reports, General Information and Station Announcements.
 5—G.P.O. Chimes.

Evening Session (6.30 to 10.30).

- 6.30—G.P.O. Chimes.
 6.31—Bedtime Stories for the Children.
 7.30—Stock Exchange and Market Reports and Station Announcements.
 7.40—Swimming Talk by Mr. Boatwright.
 8—G.P.O. Chimes.
 8.1—Studio Concert arranged by Mrs. W. Keith Steward.
 8.20—"Twinkler" Boys Club.
 8.30—Studio Concert, continued.
 9—G.P.O. Chimes.
 9.1—Weather Reports.
 9.3—Studio Concert, continued.
 10—G.P.O. Chimes.
 10.1—Studio Concert, continued.
 10.15—Advertiser News Service.
 10.30—Station Announcements; To-morrow's Programme; National Anthem; Good Night.

TUESDAY, MARCH 16.

Morning Session (11.30 a.m. to 2 p.m.)

- 11.30—G.P.O. Chimes.
 11.31—Stock Duo Art and Aerial Vocalion Recitals.

12—G.P.O. Chimes.

- 12.1—News and Cable Service.
 12.30—The SCL Studio Orchestra will play: Selection; violin solo; fox trot; caprice; Spanish dance; waltz; cello solo; selection; finale.
 1.55—S. C. Ward & Co.'s Stock Exchange Intelligence, Official Weather Synopsis and Station Announcements.
 3—G.P.O. Chimes.

Afternoon Session. (3 to 5).

- 2—G.P.O. Chimes.
 3.1—Relay from Maple Leaf Cafe; Orchestral Numbers.
 3.45—Broadcast from Studio; Serial Story.
 4—G.P.O. Chimes.
 4.1—Broadcast from Arcadia Cafe; Orchestral Numbers.
 4.35—Stock Exchange Reports, General Information and Station Announcements.
 5—G.P.O. Chimes.

Evening Session (6.30 to 10.30).

- 6.30—G.P.O. Chimes.
 6.31—Bedtime Stories for the Children.
 7.30—Stock Exchange, Market Reports and Station Announcements.
 7.40—Physical Culture Talk by Mr. Noel H. Holbbe.
 8—G.P.O. Chimes.
 8.1—Studio Concert arranged by Madame Bernstein.
 8.30—Cookery Talk arranged by S.A. Gas Co.
 8.50—Studio Concert, continued.
 9—G.P.O. Chimes.
 9.1—Weather Reports.
 9.3—Studio Concert, continued.
 10—G.P.O. Chimes.
 10.1—Studio Concert, continued.
 10.15—Advertiser News Service.
 10.30—Station Announcements; To-morrow's Programme; National Anthem; Good Night.

WEDNESDAY, MARCH 17.

Morning Session (11.30 a.m. to 2 p.m.)

- 11.30—G.P.O. Chimes.
 11.31—Stock Duo Art and Aerial Vocalion Recitals.
 12—G.P.O. Chimes.
 12.1—News and Cable Service.
 12.30—SCL Studio Orchestra will play: Selection; overture; cornet solo; serenade; fox trot; instrumental trio; selection; cello solo; waltz; finale.
 1.55—S. C. Ward & Co.'s Stock Exchange Intelligence, Official Weather Synopsis, and Station Announcements.
 2—G.P.O. Chimes.

Afternoon Session. (3 to 5).

- 3—G.P.O. Chimes.
 3.1—Broadcast from Maple Leaf Cafe; Orchestral Numbers.
 3.45—Serial Story from the Studio.
 4—G.P.O. Chimes.
 4.1—Relay from Arcadia Cafe; Orchestral numbers.
 4.35—Stock Exchange Reports, General Information and Station Announcements.
 5—G.P.O. Chimes.

Evening Session (6.30 to 10.30).

- 6.30—G.P.O. Chimes.
 6.31—Bedtime Stories for the Children.
 7.15—Science lecture, "Tuberculosis—its cause and prevention," Mr. R. B. Aldersay, B.Sc., A.A.C.I.
 7.30—Stock Exchange and Market Reports, and Station Announcements.
 7.40—Boy Scouts' Curser.
 8—G.P.O. Chimes.
 8.1—Broadcast from Norwood Town Hall, by permission of the management, the musical play, "Yvonne."
 9—G.P.O. Chimes.
 9.1—Weather Reports.
 9.3—Musical Play, continued.
 10—G.P.O. Chimes.
 10.1—Musical Play, continued.
 10.15—Advertiser News Service.
 10.30—Station Announcements; To-morrow's Programme; National Anthem; Good Night.

THURSDAY, MARCH 18.

Morning Session (11.30 a.m. to 2 p.m.)

- 11.30—G.P.O. Chimes.
 11.31—Stock Duo Art and Aerial Vocalion Recitals.
 12—G.P.O. Chimes.
 12.1—News and Cable Service.
 12.30—SCL Orchestra will play: Selection; cornet solo; fox trot; waltz; waltz; violin solo; finale, selection.
 1.55—S. C. Ward & Co.'s Stock Exchange Intelligence, Official Weather Synopsis and Station Announcements.
 2—G.P.O. Chimes.

Afternoon Session. (3 to 5).

- 3—G.P.O. Chimes.
 3.1—Relayed from Maple Leaf Cafe; Orchestral Numbers.
 3.45—Broadcast from Studio; Serial Story.
 4—G.P.O. Chimes.
 4.1—Broadcast from Arcadia Cafe; Orchestral Numbers.
 4.35—Stock Exchange Reports, General Information and Station Announcements.
 5—G.P.O. Chimes.

Evening Session (6.30 to 10.30).

- 6.30—G.P.O. Chimes.
 6.31—Bedtime Stories for the Children.
 7.15—Health Talk arranged by Mr. A. M. Wiltentbury.
 7.30—Stock Exchange and Market Reports, and Station Announcements.
 7.40—Talk on Poetry by Mr. A. M. Wiltentbury.
 8—G.P.O. Chimes.
 8.1—Studio concert arranged by Miss Hilda Wheeler.
 9—G.P.O. Chimes.
 9.1—Weather Reports.
 9.3—Programme of Classical and popular music arranged by the Studio Orchestra interspersed with vocal numbers by leading artists.
 10—G.P.O. Chimes.
 10.15—Advertiser News Service.
 10.30—Station Announcements; To-morrow's Programme; National Anthem; Good Night.

2BL

BROADCASTER (SYDNEY) LTD.
 Call Sign, 2BL. Wavelength, 555 metres.

FRIDAY, MARCH 12.

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.
 3.45—Music from the Studio.
 3.55—G.P.O. Clock and Chimes; Music from the Studio.
 4.30—G.P.O. Clock and Chimes; Serial Story entitled This World of Ours.
 4.45—Music from the Studio.
 4.55—Late Market Reports from The Sun.
 5—G.P.O. Clock and Chimes; The Sun News Service.
 5.15—G.P.O. Clock and Chimes; Close down.

- Early Evening Session.
 6—G.P.O. Clock and Chimes; Pavilion Diner Orchestra under the direction of Mr. Coe 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 Australian Mercantile Lead & Finance Company.
 7.50—Close down.

Evening Session.

- 8—From the Studio: Miss Madge Helmrich. Round the World Traveltips by Mr. J. M. Prentice. Mr. David Andrews will speak on the "Late History of White Ants."

Burgess—"They're used throughout the United States Navy"—Batteries

SATURDAY, MARCH 13.
Afternoon Session.

2—G.P.O. Clock and Chimes; Special Sporting Information broadcast direct from Sun Office.

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 Jack and the Kiddies.

7—A Talk to the Kiddies by "Brim-ya."

Evening Session.

8—From the Studio; Miss Daisy Mangan, soprano; Miss Amy Orling, contralto; Mr. Fred R. Gooch, humorist at the piano; Mr. and Mrs. Sid Owen in musical arias; Mayo Hunter and Gladys. Bring will speak about the Aborigines and Mr. W. Fitzpatrick will chat on "Life at Sea." Duganwa Modern Dance Band, Manly, under the direction of Mr. C. S. Thacker.

SUNDAY, MARCH 14.

11—Church Service.

3.30—Manly Municipal Military Band, broadcast from Ocean Beach, Manly.

7.15—Chalmers Presbyterian Church; Minister, Rev. D. F. Bann.

8.30—From the Studio; Miss Myra Cotton, contralto; Mr. Norman Wright, tenor.

MONDAY, MARCH 15.
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.

4.45—Music from the Studio.

4.55—Late Market Reports from The Sun.

5—G.P.O. Clock and Chimes; Sun News Service.

5.15—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.

7.30—"What's On," a guide to the visitors and citizens of Sydney.

7.45—Late Stock, Hides and Market Reports by courtesy of Australian Mercantile Land & Finance Company.

7.50—Close down.

TUESDAY, MARCH 16.
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.

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; Social Story entitled This World of Ours.

4.42—Music from the Studio.

4.55—Late Market Reports from The Sun.

5—G.P.O. Clock and Chimes; Sun News Service.

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 Jack and the Kiddies.

7.45—Late Stock, Hides and Market Reports by courtesy of Australian Mercantile Land & Finance Company.

7.50—Close down.

Evening Session.

8—From the Studio; Norman Jason, baritone, will sing with Trio Accompaniment. Enmore Theatre Symphony Orchestra; Conductor: Mr. S. Watkins. Miss Helen Jean Begging will speak on "Movie Life in General." Mr. B. T. Alkin will speak on "Vivamus et Brevitemus."

WEDNESDAY, MARCH 17.
Afternoon Session.

3—G.P.O. Clock and Chimes; Weather Report and Social Notes from The Sun.

3.15—Broadcasters' Trio.

3.30—G.P.O. Clock and Chimes; Special Musical Session.

4—G.P.O. Clock and Chimes; Broadcasters' Trio.

4.30—G.P.O. Clock and Chimes; Social Story entitled This World of Ours.

4.45—Broadcasters' Trio.

4.55—Late Market Reports from The Sun.

5—G.P.O. Clock and Chimes; Sun News Service.

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 Uncle Jack with the Kiddies.

7.45—Late Stock, Hides and Market Reports by courtesy of Australian Mercantile Land & Finance Company.

7.50—Close down.

Evening Session.

8—From the Studio; Claire Gooley, soprano; Leah Frenchman and Bart Trumbull in comedy sketches; Lena Jefferson, tenor; Dedic Williams, contralto; Mary Chalkin, pianist; Mr. J. M. Prentice, will speak on "Foreign Affairs" and reply to any telephone question on the subject.

THURSDAY, MARCH 18.
Afternoon Session.

3—G.P.O. Clock and Chimes; Weather Reports and Social Notes from The Sun.

3.15—David Jones' Tea Room Trio.

3.30—G.P.O. Clock and Chimes;

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; Social Story entitled The Treasure of Ho.

4.45—Music from the Studio.

4.55—G.P.O. Clock and Chimes; Sun News Service.

5.15—G.P.O. Clock and Chimes; Close down.

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 Australian Mercantile Land & Finance Company.

7.50—Close down.

Evening Session.

From the Studio; Robert Turner, entertainer; Concoy entitled, "The Laughter of Kooka," Mille Hughes, soprano; Raymond Beatty, basso cantante. Hoy's Imperial Orchestra under the direction of Mr. Lionel Hart, broadcast from Hoy's Theatre.

"The Romance of Entertainers" No. 2, by Mr. B. A. Macdonald, B.E.

2KY

WEEKLY BROADCASTING PROGRAMME.

TRADES HALL.

Call Sign, 2KY. Wavelength, 260 metres.

FRIDAY, MARCH 12.
Afternoon Session.

2.30—A varied vocal and musical programme will be transmitted, closing down at 4.45.

Children's Hour.

6.30—"The Man in the Moon," Evening Session.

7.45—Latest news items; Miss Emma Diell, L.L.C.M.; Miss Maizie Carroll, soprano; Mr. Alf. James, baritone; Mr. Board, technical designer of 2KY, wireless lecturette; Ed. Corderoy's Moonlighters' Dance Orchestra; and others to be announced.

SATURDAY, MARCH 13.
Evening Session.

7.45—Latest news items and sporting results; Mr. J. O'Sullivan, baritone; lecturette, "Hints on Motors," Mr. W. H. Burgess; Mr. Frank Redman, monologues; lecturette, "Social Science," Mr. J. C. Eldridge; Herbert Beaver, humorist; and others to be announced.

MONDAY, MARCH 15.
Afternoon Session.

2.30—A varied musical and vocal programme will be transmitted, closing down at 4.45.

Children's Hour.

6.30—"The Man in the Moon," Evening Session.

7.45—Latest news items; Miss Amy Rowland, entertainer; Miss D. Johnston, soprano; Mr. W. Strain, tenor; Mr. Walter McKillop, musical burlesque; lecturette, "Local Topics, Industrial and Political," Mr. J. S. Garden; Mr. Beard, technical designer of 2KY, wireless lecturette.

TUESDAY, MARCH 16.
Afternoon Session.

2.30—A varied musical and vocal programme will be transmitted, closing down at 4.45.

Children's Hour.

6.30—"The Man in the Moon," Evening Session.

7.45—Latest news items; Mr. McKillop, burlesque comedian; Miss Durrington, soprano; Cec. Morris and his Bluebirds' Jazz Band; lecturette, "A Study in Evolution," Mr. Gao. E. Mantele; Miss Zara Nilsson, soprano; lecturette, Mr. R. V. Markham; flute solos, Mr. Les. Spruille.

WEDNESDAY, MARCH 17.
Afternoon Session.

2.30—A varied musical and vocal programme will be transmitted, closing down at 4.45.

Children's Hour.

6.30—"The Man in the Moon," Evening Session.

7.45—Latest news items; Mr. McKillop, burlesque comedian; Miss Durrington, soprano; Cec. Morris and his Bluebirds' Jazz Band; lecturette, "A Study in Evolution," Mr. Gao. E. Mantele; Miss Zara Nilsson, soprano; lecturette, Mr. R. V. Markham; flute solos, Mr. Les. Spruille.

THURSDAY, MARCH 18.
Afternoon Session.

2.30—A varied musical and vocal programme will be transmitted, closing down at 4.45.

Children's Hour.

6.30—"The Man in the Moon," Evening Session.

7.45—Latest news items; Miss Eileen Charlton, soprano; Miss Deau, pianist; Mr. Don Ellis, harmonica; lecturer etc. international topics, industrial and political. Mr. J. S. Garden; Mr. H. Webster, baritone; Mr. Percy Brown, monologues; Mr. Sullivan, tenor; Miss Thompson, soprano.

FRIDAY, MARCH 19.
Afternoon Session.

2.30—A varied musical and vocal programme will be transmitted, closing down at 4.45.

Children's Hour.

6.30—"The Man in the Moon," Evening Session.

7.45—Latest news items; Miss Eileen Charlton, soprano; Miss Deau, pianist; Mr. Don Ellis, harmonica; lecturer etc. international topics, industrial and political. Mr. J. S. Garden; Mr. H. Webster, baritone; Mr. Percy Brown, monologues; Mr. Sullivan, tenor; Miss Thompson, soprano.

SATURDAY, MARCH 20.
Afternoon Session.

2.30—A varied musical and vocal programme will be transmitted, closing down at 4.45.

Children's Hour.

6.30—"The Man in the Moon," Evening Session.

7.45—Latest news items; Miss Eileen Charlton, soprano; Miss Deau, pianist; Mr. Don Ellis, harmonica; lecturer etc. international topics, industrial and political. Mr. J. S. Garden; Mr. H. Webster, baritone; Mr. Percy Brown, monologues; Mr. Sullivan, tenor; Miss Thompson, soprano.

SUNDAY, MARCH 21.
Afternoon Session.

2.30—A varied musical and vocal programme will be transmitted, closing down at 4.45.

Children's Hour.

6.30—"The Man in the Moon," Evening Session.

7.45—Latest news items; Miss Eileen Charlton, soprano; Miss Deau, pianist; Mr. Don Ellis, harmonica; lecturer etc. international topics, industrial and political. Mr. J. S. Garden; Mr. H. Webster, baritone; Mr. Percy Brown, monologues; Mr. Sullivan, tenor; Miss Thompson, soprano.

down at 4.45.

Children's Hour.
6.30—"The Man in the Moon" and Uncle Val.

Evening Session.

7.45—Latest news items; Messrs. Haydon and Price, cornet duet; Miss Tibbitts Smith, monologues; Miss Beekie Jones, contralto; Mr. Eric Goldrick, Hawaiian steel guitar; lecturette, "Australian Poets." Mr. Thomas; lecturette on the Abrams methods, Mr. Munnell; Cec. Morris and his Bluebirds' Jazz Orchestra.

3LO

BROADCASTING CO. OF AUST. PROP. LTD.

Call Sign, 3LO. Power, 5 kilowatts. Wavelength, 371 metres.

FRIDAY, MARCH 12

Midday Session, 12 to 2.

12—Time signal; British official wireless news from Rugby; Reuter's and the Australian Press Association cables; "Argus" and "Herald" news services; shipping intelligence.
12.45—Stock Exchange information.
12.50—Meteorological information; weather forecasts for Victoria, Tasmania, S. Australia, and N.S.W.; ocean forecast; river reports.

1—Time signal.
1.1—The Studio Orchestra, Valse des Fleurs, Nut Cracker Suite (Tschikowsky).

1.4—Agnes Fortune, piano solo, Le Reve Angelique (Rubinstein).

1.16—Bessie Lasker, contralto, Where the Yellow Kowhai Blooms (Jones), If I Were a Lark (Clusman).

1.23—Instrumental Trio, Walther's Prelude (Wagner).

1.30—Bessie Lasker, contralto, Where the Albion Flower (Finden), Oh, Willow, Willow (Trad).

1.37—The Studio Orchestra, In a Sentimental Dream (Raufmann).

1.42—Tasma Tierman, 'cello solo, Rendino (Kreisler).

1.48—The Studio Orchestra, Oe Mennet and Finito 5th Symphony (Haydn).

2—Time signal. Close down.

Afternoon Session, 3 to 5.

3—Time signal.
3.1—The Studio Orchestra, Adieu (Kargueff).

3.6—Instrumental Trio, In Elizabethan Days (Kramer).

3.14—Marie Bremner, of L'Ilac Time (by permission of J. C. Williamson Ltd.), One Fine Day (Puccini), Down in the Forest (Ronald).

3.21—The Studio Orchestra, Meditation (Tschikowsky), Five Foot Two (Lange).

3.32—An Fall, of Buckley and Nunn Ltd., Fashion talk.

3.43—The Studio Orchestra, Ballet Egyptian (Luizini).

3.57—Howard Edie, recital, The Merchant of Venice, Court Scene, act 4, scene 1.

4.13—Walter Smith, cornet solo, Wendouree (Code).

4.23—The Studio Orchestra, Lesender (Gilbert).

4.26—Marie Bremner, soprano, The Dove and 'Th' Junc (Ronald).

4.39—The Studio Orchestra, Momento Capriccioso (Weber).

4.40—Serenade Espagnolt (Kaempfert).

4.45—"Argus" and "Herald" news

services; Reuter's and the Australian Press Association cables.

5—Time signal. Close down.

Evening Session, 6 to 7.15.

6—Children's Hour. Stories by Billy Bunny; Houses of the Eagle, Nursery Rhymes, The Magical Trip.

6.55—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.

6.58—Weather synopsis; shipping movements.

6.57—Fish market reports by J. R. Borrett Ltd.

7.2—Stock Exchange information.

7.4—Fruit market reports by the State Fruit Advisory Board.

7.6—Market reports by the Victorian Producers' Co-operative Co. Ltd.

Night Session, 7.30 to 11.

7.20—Under the auspices of the Development Australia League, Industrial Australia through a Scotchman's Eyes, by "Jack."

7.45—Mr. Arthur Shipt, now playing Christian Veit in L'Ilac Time, will speak from his dressing-room at the Theatre Royal, by permission of J. C. Williamson Ltd.

8—The Collingwood Citizens' Band, overture, Poet and Poessant.

8.10—Bessie Lasker, soprano, The Wind is Whist'ring Low, The Birth of Morn.

8.17—The Collingwood Citizens' Band, Norwegian Cradle Song.

8.24—Howard Edie, Shakespearian recital, King Richard III., act 1, scene 1.

8.40—The Collingwood Citizens' Band, cornet solo, Arbucklinian, soloist—J. Armour.

8.49—Bessie Lasker, soprano, How Many a Lonely Caravan (Finden), It was a Lover and his Lass.

8.55—The Collingwood Citizens' Band, Jolly Coppersmith.

9.2—Mr. Leslie Brunning, garden notes—the bulb garden.

9.17—The Collingwood Citizens' Band, Gold and Silver.

9.27—"Argus" and "Herald" news.

9.35—Bert Howell and his concert orchestra, transmitted from the Victory Theatre, St. Kilda.

11—God Save the King.

SATURDAY, MARCH 13.

Midday Session, 12 to 2.

12—Time signal; British official wireless news from Rugby; Reuter and the Australian Press Association cables.

12.45—Stock Exchange information; shipping news.

12.55—Meteorological information; weather forecasts for Victoria, Tasmania, S. Australia and N.S.W.; river reports.

1—Time signal.
1.1—The Studio Orchestra, La Dame Blanche (Boieldieu).

1.9—Tasma Tierman, 'cello solo, Romance (Schumann).

1.15—Jack O'Hagan, baritone, I'm going to Hump my Blues, I Miss my Swiss.

1.22—The Studio Orchestra, Dreamy Carolina Moon (Lloyd).

1.27—Dorothy Roxburgh, viola solo, Melodie (Rehkopf).

1.32—Jack O'Hagan, baritone, I Want You to Want Me, Sleepy Time Gal.

1.39—Result of the Narong Hurdle from the V.A.C. Meeting.

1.40—The Studio Orchestra, Columbine (Smith), Evening Mood (Czerwonky).

2—Time signal. Close down.

2.30—Result of the Orrong Two Year Old.

3—Time signal.
3—Time signal.

3.1—Arolan Orchestra, waltz, Wait till the Morning After (Dickson).

3.6—Result of the St. Kilda Cup.

3.8—Instrumental Trio, In Elizabethan Days (Kramer).

3.14—Agnes Fortune, piano solo, Nocturne in G Major (Chopin).

3.21—The Arolan Orchestra, fox trot, Mighty Blue.

3.27—Fox trot, Who Wouldn't Love You.

3.32—Peggy Lotts, contralto, I Heard You Go By (Wood), Thanks be to God (Dickson).

3.40—Result of the Gordon Steeple.

3.43—The Arolan Orchestra, one step, Because of You.

3.48—Fox trot, Picanniny Blues.

3.54—Walter Smith, cornet solo, Wendouree (Code).

4.2—Peggy Lotts, contralto, When My Ships (Doret), Kashmir Song (Finden).

4.9—Bessie Ganson, violin solo, Chanson Louis XIII and Pavane (Kreisler).

4.15—Result of the South Yarra Handicap.

4.18—The Arolan Orchestra, fox trot, A-U-double-S-I-E.

4.28—Tasma Tierman, 'cello solo, Star of Eve (Wagner).

4.34—The Arolan Orchestra, waltz, After the Dawn.

4.39—Waltz, Funny.

4.45—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables; sporting results.

5—Time signal. Close down.

Evening Session, 6 to 7.15.

6—Children's Hour. Stories by Mary Gumleaf. Poems, Playing at School, The Puzzle, Hansel and Grettel (with musical illustrations in Panama Canal).

6.45—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.

6.53—Weather synopsis; shipping movements.

6.57—Stock Exchange information.

7.2—Fish market reports by J. R. Borrett Ltd.

7.4—Fruit market reports by the State Fruit Advisory Board.

7.6—Market reports by the Victorian Producers' Co-operative Co. Ltd.

Night Session, 7.40 to 11.

7.40—Mrs. C. R. Long, M.A., With Our First Legislators in 1851.

8—The Studio Orchestra, waltz, Blue Danube (Strauss).

8.10—Joe Delaney, tenor, Twenty Years Ago (Holbrook), Beauty's Eyes.

8.17—The Studio Orchestra, quadrilles, Bonnie Dundee (d'Albert).

8.20—Alan Bell, humorist, E dunno where 'e are (Rylatt).

8.32—J. Denovva, baritone, The Boys of the Old Brigade (Brundrett).

8.34—The Studio Orchestra, schottische, Suleika.

8.38—Jean Kelly, soprano, Life's Lullaby (Lano), There's Sunshine My Side of the Street.

8.45—The Studio Orchestra, waltz, Primrose (Maxford).

8.55—J. Delaney, tenor, Far Away (Dickson).

8.58—Alan Bell, humorist, Billy Muggins (Edgwell).

9.2—The Studio Orchestra, polka, Wot Cher (Crook).

9.10—J. Donovan, baritone, Rocked in

BURGESS—"THEY'RE ON THE 'LEVIATHAN'"—BATTERIES

- the trials of the Deep.
 9.19—Alan Bell, humorist, Are you there, Morarty?
 9.17—The Studio Orchestra, Royal Alberto Quadrilles (Moffatt).
 9.20—Joan Kelly, soprano, By the Fountain (Adams), I'll be Your Sweetheart (Davre).
 9.26—The Studio Orchestra, mazurka, Sweet Visions (Reiter).
 9.44—Joe Delaney, tenor, Sally Horner, Say Au Revoir.
 9.51—The Studio Orchestra, Army Lancers (Bruno).
 10.3—"Argus" and "Herald" news services.
 10.9—J. Dumovar, baritone, Red Wing (Mills), I Wonder if You Miss Me Sometimes (Scott).
 10.16—The Studio Orchestra, barn dance, Pop Corn (Lath).
 10.24—Jean Kelly, soprano, Love Me & the World is Mine (Ball), Teasing (Tom Tyler).
 10.31—The Studio Orchestra, Coon Song (Coke Walk (Dufral).
 10.39—Joe Delaney, tenor, Marguerite (White).
 10.42—The Studio Orchestra, waltz, Il Bacio (Arditi).
 10.50—J. Donovan, baritone, Two Little Girls in Blue" (Raham).
 10.53—Alan Bell, humorist, Bugging he ought to know, you know (West), Wait till the Works Comes Round (Bliss).
 11—The Studio Orchestra, King Pantomime (Kaps).
 11.10—Auld Lang Syne.
 11.12—God Save the King.

SUNDAY, MARCH 14.

- Morning Session, 11 to 12.15.
 11—Service from St. Paul's Cathedral; Sermon, the Archbishop.
 Afternoon Session, 3 to 4.30.
 3—Service from the Wesley Church Central Mission, chairman Sunday Afternoon Services, Pleasant, Rev. S. J. Eban. Address, his Excellency the Earl of Stradbroke.
 Evening Session, 8 to 6.45.
 6—Children's Hour. Stories by Billy Bunn; Bible Battles and other stories.
 6.45—Close down.
 Night Session, 7 to 10.
 7—Gipsy Smith Commonwealth Evangelistic Campaign; evening service transmitted from Wirth's Olympia.
 8.30—C. E. Chugg, flautist, Sonata (Bach).
 8.40—Constance Burt, soprano, Sighing, Weeping (Bach), Robin Song (White).
 8.47—Harold Elvins in a pianoforte recital, transmitted from Sonora House, 145a Collins St., by permission of Allan's Pty. Ltd.
 9.30—C. Richard Chugg, flautist, Concerto (Mozart).
 9.45—Constance Burt, soprano, Una Voce puco fa, Lass with the Delicate Air (Arns).
 9.52—"Argus" and "Herald" news.
 10—God Save the King.

MONDAY, MARCH 15.

- Midday Session, 12 to 2.
 12—Time signal; British official wireless news from Rugby; Reuter's and the Australian Press Association cables; "Argus" and "Herald" news services; shipping intelligence.
 12.45—Stock Exchange information.
 12.50—Meteorological information; weather forecast for Victoria, Tasmania, S. Australia, and N.S.W.; ocean forecast; river reports.
 1—Time signal. Gipsy Smith Common-

- wealth Evangelistic Campaign, midday service transmitted from Wirth's Olympia.
 1.50—The Studio Orchestra, musical director Bessie Gausson; selection, Mendelssohn's Melodies (Roberts).
 2—Close down.
 Afternoon Session, 3 to 5.
 3—Time signal.
 3.1—The Studio Orchestra, overture, Moritana (Wallace).
 3.7—Dorothy Roxburgh, viola solo, Cavatina (Gaslini).
 3.12—Darvall Thomas, tenor, Dear Old Pal of Mine (Rice), Banjo Song (Hoemer).
 3.21—The Studio Orchestra, fox trot, Blue-Eyed Sally (Robinson).
 3.26—Tasma Tierian, tello solo, Dreams of Love (Llani).
 3.31—Dorothy Dane, soprano, My Beautiful Lady (Caryl), Amarella (Winn).
 3.38—Miss Flora Pell, Supervisor of Domestic Arts, Education Department, domestic songs.
 3.53—The Studio Orchestra, Rosamunde Ballet Suite (Schubert).
 4—Darvall Thomas and Dorothy Dane, duets, Mummy (Smith), Miami Shore (Lawrence).
 4.7—Walter Smith, cornet solo, Shepherd's Morning Song (Suppe).
 4.15—The Studio Orchestra, fox trot, Ah Ha (Mennac).
 4.20—Darvall Thomas, tenor, Songs of Arabia (Rumenthal).
 4.24—The Studio Orchestra, Prelude (Chopin).
 4.28—Dorothy Dane, soprano, The Silvery Lining (Kern).
 4.31—The Station Trio, Waltz (Carrene).
 4.35—The Studio Orchestra, selection, Betty (Lubson).
 4.45—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
 5—Time signal. Close down.
 Evening Session.
 6—Children's Hour. Stories by Billy Bunn; Nursery Rhymes, The Magical Trip, Houses of the Eagle.
 6.45—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
 6.50—Weather synopsis; shipping movements.
 6.57—Stock Exchange information.
 7.2—Fish market reports by J. R. Borrett Ltd.
 7.4—Fruit market reports by the State Fruit Advisory Board.
 7.6—Market reports by the Victorian Producers' Co-operative Co. Ltd.
 Night Session, 7.20 to 11.
 7.20—Mr. C. R. Long, M.A., The Great Samson Hurricane, 1889.
 7.45—Mr. J. C. Boyce, Govt. Tourist Officer, Bush Fires and Your Holidays.
 8—Victorian Railways Institute Military Band, march, The Captain (Lincoln); overture, Poet and Peasant (Suppe); patrol, St. Patrick (J. H. P.); march, Basket of Roses (Albers).
 8.45—The Harmonists, Tom Masters & James Iresser, duet, The Garden of Your Heart (Durel); Herbert Sanderson, solos, The Two Grenadiers (Schumann), The Lass of Killan (Schubert).
 8.57—Rev. Kenneth Henderson, M.A., R. Ltd., The Religion and Politics.
 9.15—Victorian Railways Institute Military Band, selection, Macbeth (Verdi), walse, June Baxter, intermezzo, Rondeau, Rondeau (Aucter), finale, Captain Betty (Baxter).

- 10—"Argus" and "Herald" news.
 10.15—The Harmonists' Quartette, American Folk Songs, A Negro Medley.
 10.25—Agnes Fortuna, piano, Berceuse (Chopin).
 10.30—The Harmonists, Herbert Sanderson and Robert Gillard, duet, The Two Beggars (Wilson), quartettes, Robin Adair (Lewis) Lullie Tommy Went a-Fishing.
 10.45—Agnes Fortuna, piano solo, B Major Nocturne (Chopin).
 10.50—The Harmonists' Quartette, Genevieve, English Madrigals.
 11—God Save the King.

TUESDAY, MARCH 16.

- Midday Session, 12 to 2.
 12—Time signal; British official wireless news from Rugby; Reuter's and the Australian Press Association cables; "Argus" and "Herald" news services; shipping intelligence.
 12.45—Stock Exchange information.
 12.50—Meteorological information; weather forecast for Victoria, Tasmania, S. Australia, and N.S.W.; ocean forecast; river reports.
 1—Time signal. Gipsy Smith Commonwealth Evangelistic Campaign; midday service transmitted from Wirth's Olympia.
 1.50—The Studio Orchestra, musical director Bessie Gausson, suite, A Love Suite (Luke).
 2—Time signal. Close down.
 Afternoon Session, 3 to 5.
 3—Time signal.
 3.1—The Studio Orchestra, overture, Der Freischutz (Weber).
 3.8—The Plunger of God a play in one act, by Francis W. B. Brown.
 3.28—The Studio Orchestra, Andante Cantabile (Tschalkowsky).
 3.34—Walter Smith, cornet solo, Flower Song (Lange).
 3.38—Matron Moreland, infant welfare.
 3.53—Bessie Gausson, violin solo, Scene de Ballet (De Bériot).
 4.3—Laurie Burnett, entertainer, Cousins, Killaloe.
 4.10—The Studio Orchestra, La Columbe (Gounod).
 4.18—Au Pair, of Buckley and Nunn Ltd., fashion talk.
 4.30—Laurie Burnett, entertainer, At the Football Match Last Saturday, Nursery Rhymes.
 4.37—The Studio Orchestra, fox trots, (Chopin), (Bach), To Kiss You Good Morning (Robinson).
 4.45—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
 5—Time signal. Close down.
 Evening Session, 8 to 7.15.
 6—Children's Hour. Stories by Mary Gumbert; Fooms, The Boy and His Dog, Venzers; for the little ones, Billy's Dream; songs, Who Killed Cock Robin, Poor and Twenty Blackbirds, The Naughty Mouse, by the White Girl and Mary Gumbert; boys and girls, How Pixie Found Her Mother.
 6.45—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
 6.50—Weather synopsis; shipping movements.
 6.57—Stock Exchange information.
 7.2—Fish market reports by J. R. Borrett Ltd.
 7.4—Fruit market reports by the State Fruit Advisory Board.
 7.6—Market reports by the Victorian Producers' Co-operative Co. Ltd.
 Night Session, 7.20 to 11.
 7.20—Under the auspices of the New

- Settlers' League, Mr. A. Gilchrist, The Message of Country Week.
- 7.40—University Extension Lecture, Dr. Gwyneth Buchanan, D.Sc., Senior Lecturer in the Zoology Department at the University, Coral and Coral Islands.
- 8.—Transmitted from the Auditorium, Collins St.: Complimentary farewell concert to Roy Shepherd, winner of the Clarke Scholarship, tendered by the University Conservatorium of Music, assisted by the St. Paul's Cathedral Choir (direction, Dr. A. E. Floyd), and other artists in addition to Roy Shepherd.
- 10.15—From the Studio: Dr. Loftus Mills, D.Sc., The Concrete Age, Part 2.
- 10.30—"Argus" and "Herald" news.
- 10.35—Laurensa Hulbert, baritone, I Love You More (See), Lassie o' Mine (Walt).
- 10.42—Harold Rodgers, organ, Grand March Triumphant (Grey).
- 10.47—Laurence Hulbert, baritone, II Winter Comes (Tennant), Honey (Alstyne).
- 10.54—Harold Rodgers, organ, Fanfare (Lemmens).
- 11—God Save the King.

WEDNESDAY, MARCH 17.

- Midday Session, 12 to 2.
- 12—Time signal; British official wireless news from Rugby; Reuter's and the Australian Press Association cables; "Argus" and "Herald" news services; shipping intelligence.
- 12.25—Lenten midday address by Sir Alexander Peacock, transmitted from St. Paul's Cathedral.
- 12.55—Stock Exchange information.
- 1.00—Time signal, Official opening of Somerville and District Agricultural Show.
- 1.10—From the Studio: Meteorological information; weather forecast for Victoria, Tasmania, S. Australia, & New South Wales; ocean forecast; river reports.
- 1.30—Luncheon speeches from Somerville and District Agricultural Show.
- 2—Time Signal; Close down.
- 2.20—Result of Hurdle Race from Kyneton District Racing Club Meeting.
- Afternoon Session, 3 to 5.
- 3—Time signal, Result of Maiden Plate.
- 3.1—A description of the exhibits at the Somerville and District Agricultural Show.
- 3.10—Result of Kyneton Cup.
- 3.31—The Studio Orchestra, selection, (Carmen (Bizet)).
- 4.00—Sister Purcell, of Victorian Baby Health Association, Mothercraft.
- 3.55—The Studio Orchestra, Cabin Song from Cotton Fields (White).
- 4—Result of Trial Handicap.
- 4.1—Tasma Tiernan, 'cello solo, Melody (Erim).
- 4.6—Miss S. V. Parker in talks of other lands, School Life in Ceylon.
- 4.40—The Studio Orchestra, Dreams of Love (Liszt).
- 4.25—The Station Trio, No. 1 (Berens).
- 4.40—Result of Handicap Trot.
- 4.41—The Studio Orchestra, fox trot, I Do, Do You (Ash).
- 4.45—"Argus" and "Herald" News; Sporting results; Reuter's and the Australian Press Association Cables.
- 5—Result of Rawson Handicap.
- 5.1—Close down.
- Evening Session, 6 to 7.15.
- 6—Children's Hour, Stories by Wally Bell; The Coast of the Chinese Emperor, Series No. 2; The Tale of the Glass Nightingale.
- 6.45—"Argus" and "Herald" news

- services; Reuter's and the Australian Press Association cables.
- 6.55—Weather synopsis; shipping movements.
- 6.57—Stock Exchange information.
- 7.2—Fish market reports by J. E. Borrett Ltd.
- 7.4—Fruit market reports by the State Fruit Advisory Board.
- 7.6—Market reports by the Victorian Producers' Co-operative Co. Ltd.
- Night Session, 7.20 to 11.
- 7.20—Mr. H. R. Gollan, Assistant Publicity Officer, Victorian Railways, The Railways and the Handling of the Mail.
- 7.40—Mr. A. E. McMicken, Talks on Great Writers—Charles Lamb.
- 8—Melbourne Irish Pipe Band, St. Patrick's Day, Let Erin Remember the Days of Old, Garryowen.
- 8.10—Norah Barrett, contralto, Green Isle of Erin (Gabriel), Meeting of the Waters (Moore).
- 8.17—Violet McGregor, violinist, Londonderry Air (own arrangement), Melodies of Ireland, Off in the Sillly Night.
- 8.27—Pat Coleman, entertainer, Monna-tut o' Mourne, The Bard of Armagh.
- 8.34—Walter Smith, cornet, Killarney.
- 8.41—Kathleen Fitzpatrick, soprano, Kerry Dance, Last Rose of Summer.
- 8.48—Mr. J. Howlett Ross, St. Patrick's Day.
- 9.6—Melbourne Irish Pipe Band, James O'Neill, Minstrel Boy, Forty Miles.
- 9.20—Under the auspices of the New Settlers' League, a country week talk, Wonthaggi, its Coal Mines and Butcher.
- 9.30—Walter Smith, cornet, Mother Macbride.
- 9.36—Norman Bradshaw, tenor, Eily Mavourneen, Believe me if all.
- 9.43—Melbourne Irish Pipe Band, Fox Hunters' jig, Irish Republic, Captain Taylor.
- 9.53—Norah Barrett, contralto, Come Back to Erin, The Irish Immigrant.
- 10—"Argus" and "Herald" news.
- 10.5—Violet McGregor, violin, Irish Dance.
- 10.12—Pat Coleman, entertainer, The Girl from County Clare, Donaghua's Daughter.
- 10.19—Melbourne Irish Pipe Band, Off in the Silly Night, Sporting Boys, Nora Creina.
- 10.24—Norman Bradshaw, tenor, The Minstrel Boy, Maensha.
- 10.31—Walter Smith, cornet, She is far from the Land.
- 10.36—Kathleen Fitzpatrick, soprano, Danny Boy, The Irish Hat Once.
- 10.40—Melbourne Irish Pipe Band, Black Donald, Paddy O'Bafferty, God Save Ireland.
- 11—God Save the King.
- 1.20—The Studio Orchestra, The Bartered Bride (Smetana).
- 1.33—Marie Lethbridge, soprano, Down in the Forest (Ronald), The Blackbird's Song (Scott).
- 1.40—The Studio Orchestra, Thanks for the Buggy Ride (Buffano).
- 1.45—Instrumental Trio, Saive Dimora (Gonoud).
- 1.50—The Studio Orchestra, Bits and Pieces (Baynes).
- 2—Time Signal; Close down.
- 3—Time Signal.
- 3.10—Afternoon Session, 3 to 6.
- 3.1—The Studio Orchestra, Coal Pan Tutte (Mozart).
- 3.8—Jack O'Hagan, baritone, Thanks for the Buggy Ride, Wait Till the Morning After.
- 3.15—The Studio Orchestra, Humoresque (Karganoff).
- 3.20—Bessie Gannoun, violin solo, Sonata (Mozart).
- 3.30—The Studio Orchestra, Sanctuary of the Heart (Ketelby).
- 3.37—Frances Lee, soprano, After the Dawn, I'll See You in My Dreams.
- 3.44—The Studio Orchestra, Hawaiian Selection (Jagen).
- 3.49—Jack O'Hagan, baritone, Don't wake me up, let me Dream, The first forty years are the Hardest.
- 4.6—The Studio Orchestra, Bell Hop-pin.
- 4.11—Tasma Tiernan, 'cello solo, Larghetto (Handel).
- 4.16—The Studio Orchestra, Prayer at Eventide (Eller).
- 4.23—Frances Lee, soprano, Little Birch (Canoes, When Shadows Fall).
- 4.27—The Studio Orchestra, Dreams of Love (Liszt).
- 4.32—Agnes Fortune, piano solo, A Night in May (Palmgren).
- 4.37—The Studio Orchestra, Andante Moderato (Handel).
- 4.45—"Argus" and "Herald" News; Sporting results; Reuter's and the Australian Press Association Cables.
- 5—Evening song from St. Paul's Cathedral.
- 5.40—Time signal, Close down.
- 6—Evening Session, 6 to 7.15.
- 6—Children's Hour, Stories by Mary Gumleaf, Special programme for Country Week, Poems, Billy Tea in the Country, The Little Possum; for the littler ones, Lucy who Lived on a Farm; songs, The Kangaroo, Oh, Dear, what can the matter be, Buying a Piggy, By the Wattle Girl and Mary Gumleaf; Boys and girls, Country Week and what it means.
- 6.45—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
- 6.53—Weather synopsis; shipping movements.
- 6.57—Stock Exchange information.
- 7.2—Fish market reports by J. E. Borrett Ltd.
- 7.4—Fruit market reports by the State Fruit Advisory Board.
- 7.6—Market reports by the Victorian Producers' Co-operative Co. Ltd.
- Night Session, 7.20 to 11.
- 7.20—Mr. Wesley C. Peo, The Romance of Quinca.
- 7.40—Mr. W. P. Riddana, Oral Hygiene, under the auspices of Health Association.
- 8—Wesley College Diamond Jubilee Celebrations, transmitted from the Auditorium, Wesley College, Boys, Somewhere, The Song of the Seasons; Mr. J. Foster, song, When the King went North; Mr. Alberto Zelman, violin solo, Indian Lament (Dvorsk-Kreialer), Serenade (d'Ambronio); Dorothy Humphries, Dear Heart (Maltby), Gerald Massey, recitation, Wickets (Dennis); Methodist Ladies'

THURSDAY, MARCH 18.

- Midday Session, 12 to 3.
- 12—Time signal; British official wireless news from Rugby; Reuter's and the Australian Press Association cables; "Argus" and "Herald" news services; shipping intelligence.
- 12.45—Stock Exchange information.
- 12.50—Meteorological information; weather forecast for Victoria, Tasmania, S. Australia, and N.S.W.; ocean forecasts; river reports.
- 1—Time signal.
- 1.1—The Studio Orchestra, overture, King Solomon (Tobani).
- 1.11—Walter Smith, cornet solo, The Last Rose of Summer (Round).
- 1.16—Marie Lethbridge, soprano, Waitata Pot (Bill), A Sprig of Boronia (Hull).

College Girls, I've Been Roaming (Horn), Cherry Ripe (Horn); Methodist Ladies' College Girls, Barbara Allan (folk song), Viking Song (Coburn-Taylor); Mr. J. Foster, song, After Day (Cyril Scott); Alberto Zelman violin solo, Nocturne (Chopin-Sarasate); Miss Dorothy Humphries, A Summer Night (Goring-Thomas); Gerald Mason, recitation, The Glory of the Garden; Wesley College Boys' Glee Troupe, Chalk and Flint. Musical director, Mr. William Burrrell.

- 10.15—"Argus" and "Herald" news.
10.25—Agnes Fortune, piano solo, Valse in D Major (Schubert).
10.30—Frances Lee, soprano, Moon Deer (Whiting); God Touched the Rose (Brown).
10.37—Agnes Fortune, piano solo, Ballad in A Flat (Chopin).
10.45—Frances Lee, soprano, Big Lady Moon (Mildred Wynne).
10.52—Agnes Fortune, piano solo, Sonata in C Minor, 1st Movement (Beethoven).
11—God Save the King.

3AR

Wavelength, 484 metres. Power, 1600 watts.

FRIDAY, MARCH 12.

- Morning Session.
11.30—The British Official Government Press, relayed from Rugby Super Wireless Station, England; by 3AR's operator; The Age News Bulletin.
12—Time Signal, Chimes from Clock Tower, General Post Office, Melbourne; 1st Weather Forecast; Events of the day.
12.5—Musical Selections from Hoyt's De Luxe, Bourke Street.
12.30—Stock Exchange News.
12.35—Market Reports.
12.40—Musical Selections.
12.55—Mail Notices; Shipping Movements.
1—Close down.
Afternoon Session.
2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Brien, relayed from the De Luxe, Bourke Street.
3.45—Graphic News.
4—Time Signal, chimes from Clock Tower, General Post Office, Melbourne.
4.1—2nd Weather Forecast.
4.5—Hoyt's Premier Orchestra.
4.30—Mr. R. Standley Haines (of Brunning's Pty. Ltd.), will speak to the Children on "Frothing Biscuits."
4.45—Musical Selections.
5—Close down.

Early Evening Session.

- 6.45 to 7.30—The Children's Corner by Uncle Peter, 1, The Bedtime Story; 2, Talk on Hobbits; 3, The Children's Jig Saw Painting Competition.
8—Time Signal.
8.15—Racing Anticipations by "Horseshoe."
8.16—Mr. R. Standley Haines, will give his weekly Gossip Talk; "Perfect Lawns" (continuation).
8.25—Mr. Lance Warren (baritone).
8.32—Miss Nellie Spitt (soprano).
8.40—Miss Maxwell-Coadery (solo pianist).
8.47—Mr. J. Desborough-Carroll (baritone).
8.54—Miss Hazel Ralph (soprano).
9.1—Mr. Roy Ranage (cello solo).
9.4—Mr. J. Lloyd Jones (saxophone).
9.18—Miss Nellie Walls (soprano).
9.25—Mr. Lance Warren (baritone).
9.32—Miss Maxwell-Coadery (solo pianist).
9.39—Mr. J. Desborough-Carroll (baritone).
9.46—Mr. Roy Ranage (cello solo).
9.53—Mr. Lloyd Jones (saxophone).
10—Time Signal, Chimes from Clock Tower, General Post Office, Melbourne.

10.1—The Age News Bulletin, exclusive to 3AR.

10.10—Hoyt's Premier Orchestra, relayed from the De Luxe, Bourke St., until closing down; National Anthem.

SATURDAY, MARCH 13.

- Morning Session.
11.30—The British Official Government Press, relayed by 3AR's operator from Rugby Super Wireless Station, England; The Age News Bulletin.
12—Time Signal, Chimes from the tower of the General Post Office, Melbourne; 1st Weather Forecast; Events of the Day.
12.5—Musical Selections, relayed from Hoyt's De Luxe, Bourke Street.
12.30—Stock Exchange News; Foreign Exchanges, supplied by Messrs. Thos. Cook & Son.
12.35—Stock Exchange News.
12.35—Market Reports.
12.40—Selections from Hoyt's De Luxe, Bourke Street.
12.55—Mail Notices; Shipping Movements.
1—Close down.

Afternoon Session.

- Caulfield Races.
1.30—Description of the Nungah Hurdle, 2 miles, 56 yards, $\frac{1}{2}$.
2.30—Result of Orong Two Year Old, 6 fur.
2.35—Hoyt's Premier Orchestra, under the direction of Miss Ella Brien, relayed from Hoyt's De Luxe.
3.5—Description of St. Kilda Cup, 1 $\frac{1}{2}$ miles.
3.10—Hoyt's Premier Orchestra.
3.40—Description of the Gordon Steeple, about 2 miles.
4—Time Signal chimes from the tower of the General Post Office.
4.15—Result of the South Yarra Handicap, 5 furlongs.
4.20—Hoyt's Premier Orchestra.
4.50—Result of Ubique Welter Handicap, 1 mile.
4.55—The Evening Amusement Guide.
5—Time Signal, from Elizabeth Street, G.P.O.; Close down.

Early Evening Session.

- 6.45 to 7.30—The Children's Corner by Uncle Peter, 1, The Bedtime Story; 2, Talk on Hobbits; 3, The Children's Jig Saw Painting Competition.
8—Time Signal chimes from the tower of the General Post Office.
8.1—Sporting Results; Local News.
8.15—Dance Night, The Rhythmic Dance Orchestra under the direction of Mr. George Lewis, relayed from the Maison De Luxe, Broadway, St. Kilda.
9.30—Week-End Traveller's Information; Supplied by the Victorian Railway's Department and Tramways Board.
9.50—The Maison De Luxe Dance Orchestra.
11—National Anthem and Close down.

SUNDAY, MARCH 14.

Morning Session.

- 10.30—The Bells from St. James Old Cathedral.
11—Service from St. John's Church, Latrobe St., Bayside, Introductory services; Psalm 134; Lesson; The Jews; Lessons; Hymns; Prayers; Hymn; Sermon, Rev. P. W. Robinson; Hymn; Close down.
3—Service of the "Order of the Star in the East," relayed from Queen's Hall, Collins Street.

Evening Session.

- 7.30—The Bells from St. James Old Cathedral.
7—Service from St. John's, Latrobe St., Bayside, Introductory Services; Psalm 147; Lesson; Canticle; Lesson; Anthem; Prayers; Hymn; Sermon; Rev. A. E. Y. Young; Hymn; Close down.
8.30—From the Studio: An Interview: Mr. A. Day, Melbourne's living photographer.
9—The Helgus Grand Orchestra, relayed from the Eclipse Theatre, Fort Melbourne, under the direction of Mr. George Henry.
9.50—The Age News Bulletin, exclusive to 3AR.
9.55—National Anthem and Close down.

MONDAY, MARCH 15.

Morning Session.

- 11.30—The British Government Wireless Press, relayed by 3AR's operator from Rugby Super Station, England; The Age News Bulletin.
12—Time Signal, Chimes from the tower of the General Post Office, Melbourne; 1st Weather Forecast; Events of the Day.
12.5—Musical Selections from Hoyt's De Luxe, relayed from Bourke Street.
12.30—Stock Exchange News.
12.35—Market Reports.
12.40—Musical Selections.
12.55—Mail Notices; Shipping News.
1—Close down.

Afternoon Session.

- 2.30 Hoyt's Premier Orchestra, under the direction of Miss Ella Brien, relayed from Hoyt's De Luxe, Bourke Street.
3.45—Graphic News.
4—Time Signal chimes from the tower of the General Post Office.
4.1—2nd Weather Forecast.
4.5—Hoyt's Premier Orchestra, relayed from the De Luxe, Bourke Street.
4.55—The Evening Amusement Guide.
5—Close down.

Early Evening Session.

- 6.45 to 7.30—The Children's Corner by Uncle Ned, 1, The Bedtime Story; 2, Talk on Hobbits; 3, The Children's Jig Saw Painting Competition.
8—Time Signal chimes from the tower of the General Post Office.
8.1—Mr. Norman Sheppard (baritone).
8.10—The Azolian Orchestra, under the leadership of Mr. C. Green, in selections of the latest dance music.
8.20—Miss Constance Evans (mezzo-soprano).
8.27—Miss Ruth Guthrie (solo pianist).
8.34—Mr. Les. Harrison (bass baritone).
8.41—The Azolian Orchestra; Dance Music.
8.50—Miss Rose Kohn (soprano) will sing her own compositions.
8.55—Norman Sheppard (baritone).
9.7—Miss Constance Evans (mezzo-soprano).
9.14—The Azolian Orchestra, Vox Traits, One Stop, Waltzes.
9.25—Mr. Les. Harrison (bass baritone).
9.33—Miss Ruth Guthrie (solo pianist).
9.37—Miss Rose Kohn (soprano) singing her own compositions.
9.45—The Azolian Orchestra, selections of Dance Music.
10—Time Signal chimes from the tower of the General Post Office.
10.4—The Age News Bulletin, exclusive to 3AR.
10.10—Hoyt's Premier Orchestra, relayed from Hoyt's De Luxe, Bourke Street.
10.30 Approx.—National Anthem.

TUESDAY, MARCH 16.

Morning Session.

- 11.30—The British Government Wireless Press, relayed by 3AR's operator, from Rugby Super Station, England; The Age News Bulletin.
12—Time Signal, Chimes from the tower of the General Post Office; Events of the Day.
12.5—Musical Selections from Hoyt's De Luxe, Bourke Street.
12.30—Stock Exchange News.
12.35—Market Reports.
12.40—Selections from Hoyt's De Luxe, relayed from Bourke Street.
12.55—Mail Notices; Shipping Movements.
1—Close down.

Afternoon Session.

- 2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Brien, relayed from Hoyt's De Luxe, Bourke Street.
3.45—Graphic News.
4—Time Signal.
4.1—2nd Weather Forecast.
4.5—Hoyt's Premier Orchestra, relayed from Hoyt's De Luxe.
5—Time Signal Chimes from the tower of the General Post Office.

BURGESS—"THE CONSTANT-SATISFACTION ASSURED"—BATTERIES

Early Evening Session.
6.45 to 7.30—The Children's Corner by Uncle Peter. 1, The Children's Corner; 2, Talk on Hobbies; 3, The Children's Jig Saw Painting Competition.

8—Time Signal chimes from the tower of the General Post Office.

6.15—Miss A. M. Kuring (pianist).

6.40—Mrs. Crutskank (mezzo soprano).

6.15—Miss Dorothy Boucher (clocutionist).

6.22—Mr. Fred Nash (baritone).

6.29—Miss Elsie Mitchell (soprano).

6.36—Master Lal Kuring (cellist).

6.43—Mr. Harold Richmond (tenor)

6.50—Miss Sheila O'Brien (clocutionist).

6.57—Miss A. M. Kuring (pianist).

9.15—Mrs Crutskank (mezzo soprano).

9.15—Miss Dorothy Boucher (clocutionist).

9.16—Mr. Fred Nash (baritone).

9.25—Miss Sheila O'Brien (clocutionist).

9.32—Miss Elsie Mitchell (soprano).

9.39—Master Lal Kuring (cellist).

9.46—Mr. Harold Richmond (tenor);

9.53—Miss A. M. Kuring (mezzo soprano)

10—Time Signal chimes from the tower of the General Post Office, Melbourne.

10.1—The Age News Bulletin, exclusive to 3AR.

10.16—Hoyt's Premier Orchestra, relayed from Hoyt's De Luxe, Bourke Street.

10.40 Approx.—National Anthem.

WEDNESDAY, MARCH 17.

Morning Session.

11.30—The British Government Wireless Press, received by 3AR's operator from Rugby Super Station, England; The Age News Bulletin.

12—Time Signal, Chimes from the tower of the General Post Office, Melbourne; 1st Weather Forecast; Events of the Day.

12.5—Musical Selections from Hoyt's De Luxe, Bourke Street.

12.30—Stock Exchange News.

12.35—Market Reports.

12.40—Musical Selections, relayed from Hoyt's De Luxe.

12.55—Mail Notices, Shipping Movements.

1—Close down.

Afternoon Session.

Kyneton Races. Results after each Race.

2.30—Hoyt's Premier Orchestra, relayed from Bourke Street, under the direction of Miss Ella Byler.

3.45—Graphic News.

4—Time Signal chimes from the tower of the General Post Office.

4.1—2nd Weather Forecast.

4.5—Hoyt's Premier Orchestra.

5—Time Signal Chimes from the tower of the General Post Office.

Early Evening Session.

6.15 to 7.30—The Children's Corner by Uncle Peter. 1, The Bedtime Story; 2, Talk on Hobbies; 3, The Children's Jig Saw Painting Competition.

8—Time Signal.

6.1—Mr. Arthur Chamber, Mus. Bac., Talk on "Coupures".

6.14—Miss Gwen Kingsley (soprano).

6.21—The Hawaiian Instrumentalists, Messrs. K. & G. Jones.

6.28—Mr. J. Fraser, Talk on Swimming.

6.45—Mr. Walter Pearl (mezzo soprano).

6.50—Mr. David Shaw (flautist).

6.56—Miss Marjorie Woodcock (mezzo soprano).

9.3—Miss Mary Morton (clocutionist).

9.9—Mr. Lou. Jeness (baritone).

9.16—Miss Marjorie Firth (pianist).

9.23—Miss Gwen Kingsley (soprano).

9.30—Mr. David Shaw (flautist).

9.35—Miss Marjorie Woodcock (mezzo-soprano).

9.42—Miss Mary Morton (clocutionist).

9.47—Mr. Lou. Jeness (baritone).

9.53—Mr. Wallie Pearl (mezzo soprano).

Accountante: Marjorie Firth.

10—Time Signal chimes from the tower of the General Post Office.

10.1—The Age News Bulletin.

10.16—Hoyt's Premier Orchestra, relayed from Hoyt's De Luxe, Bourke Street.

10.40 Approx.—National Anthem.

THURSDAY, MARCH 18.

Morning Session.

11.30—The British Government Wireless Press, received by 3AR's operator from Rugby Super Wireless Station, England; The Age News Bulletin.

12—Time Signal, Chimes from the tower of the General Post Office, Melbourne; 1st Weather Forecast; Events of the Day.

12.5—Musical Selections from Hoyt's De Luxe, Bourke Street.

12.30—Stock Exchange News.

12.35—Market Reports.

12.40—Musical selections.

12.55—Mail Notices; Shipping Movements.

1—Close down.

Afternoon Session.

2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Byler, relayed from De Luxe, Bourke Street.

3.45—Graphic News.

4—Time Signal.

4.1—2nd Weather Forecast.

4.5—Hoyt's Premier Orchestra.

4.50—Special Pig and Galf Report, supplied by Messrs. McPhail, Anderson & Co.

4.55—The Evening Amusement Guide.

5—Time Signal from Elizabeth Street G.P.O.;

Close down.

Early Evening Session.

6.45 to 7.30—The Children's Corner by Uncle Peter. 1, The Bedtime Story; 2, Talk on Hobbies; 3, The Children's Jig Saw Painting Competition.

8—Time Signal chimes from the tower of the General Post Office.

8.1—Lectures "Care of Infants."

8.15—Hoyt's Premier Orchestra.

8.30—Musical Selections.

9—Dance Night. The Rhythmic Dance Orchestra relayed from the Maison De Luxe, Broadway.

St. Kilda, under the direction of Mr. George Lewis.

9.30—Hoyt's Premier Orchestra.

10—Time Signal chimes from the tower of the General Post Office.

10.1—The Age News Bulletin, exclusive to 3AR, the Maison De Luxe Dance Orchestra.

11—National Anthem and close down.

2FC

Sydney Mean Time.

Wave Length: 1100 metres.

Power: 5 kilowatts.

Morning Session:

10.10 The Chimes of 2FC.

10.15 Weather Reports, etc.

11.0 Cables.

11.5 Cookery Talks on Tuesdays, Wednesdays, Fridays, Fashion Talks on Mondays and Thursdays.

Gardening Talks on Saturdays.

11.20 Mondays, Wednesdays, and Fridays, Educational Talks to the Kindergarten Classes, Primary Schools and Secondary Schools.

11.45 Close down.

Midday Session:

12.30 The Chimes of 2FC.

12.35 Stock Exchange, morning call.

12.40 Music.

12.55 Time Signals.

1.3 Coastal Farmers (no Stock Exchange).

1.20 Musical Programme.

1.30 Stock Exchange, noon call.

1.35 Musical Programme.

Afternoon Session:

3.25 The Chimes of 2FC.

3.30 Musical Programme from Oak Hall Restaurant.

4.45 Last call from Stock Exchange.

4.50 Close down.

NOTE: Race results are transmitted on all race days immediately after each event has run.

Early Evening Session:

6.30 The Chimes of 2FC.

6.35 "The Hello" Man.

7.15 Market Reports, etc.

7.30 Close down.

Night Session:

7.45 Talks on various subjects.

8.0 Musical Programme.

The evening entertainment broadcast from Station 2FC is varied and includes theatrical transmissions from the Theatre Royal, Her Majesty's Theatre, the Criterion Theatre, the Palace Theatre, the Tivoli Theatre,

THE HILLS' REACTANODE.

To the Editor,

Dear Sir,—Last week I made up Hills' Reactanode ("W.W.," Jan. 22/26), and it did all that was claimed for it. I've made up most of the circuits given in various papers, and this, in my opinion, takes first place. Using 201A valves, no grid leak, and a Bradloystat as stabilising resistance, I get all the A and most of the B class stations

in Australia at good speaker strength, if necessary. The whole thing works very smoothly, and several friends are so pleased with the great selectivity gained that they are scrapping their sets and making this one.

Many thanks to your valuable paper for the hints and real knowledge published from time to time, for which all readers must be profoundly grateful.—Yours, etc.,

Rev. W. H. L. BROOKE.

The Rectory, Fullerton Cove, via Stockton.

Haymarket Theatre, and the Prince Edward Theatre. Jazz music provided by the Wentworth Orchestra is also broadcast direct, and high-class musical entertainments provided at the Studios of 2FC, in which Sydney's leading artists participate, are also features of the programme.

SUNDAY.

Morning Session:
Church Services.

Afternoon Session:
Sacred Programmes, including Band, Concert and Organ Recitals.

Evening Session:
Church Services broadcast from St. An-

draw's Cathedral, St. Mary's Cathedral, St. Mark's (Darling Point), St. Stephen's (Phillip Street), All Saints' (Woolaharra), Lyceum Hall, Pitt Street Congregational Church, Petersham Congregational Church, St. Jude's (Randwick), William Street Methodist, from 6.45 to 8.30. Until 10 o'clock, Sacred Concerts and Band Recitals.

RADIO SET ON TIME PAYMENT

COMPLETE READY FOR USE

at Prices and Terms to suit every pocket

Simple, Selective & Efficient.

	£	s.	d.
2 Valve Sets..	15	12	6
3 Valve Sets..	21	10	0
4 Valve Sets..	27	10	0
5 Valve Sets..	32	10	0
"Edison" Super			
Six..	110	0	6
De Forest D17 ..	75	0	9

12 Months' Guarantee

TERMS:

10 p.c. Deposit; balance in twelve months.

KEOGH RADIO SUPPLIES

503 GEORGE STREET, opposite Crystal Palace.
TELEPHONE CITY 870.



LOUD SPEAKERS

NEW JUNIOR (top left) gives sufficient volume for large rooms, and sold at a moderate price.

CABINET MODEL (centre), absolutely the finest cabinet loud speaker on the market. In polished oak or mahogany.

STANDARD (bottom right), a large model, giving ample volume, combined with pure reproduction.

Obtain further particulars from Australasian Representatives:

BENNETT & WOOD LTD.

284 PITT ST., SYDNEY, N.S.W.

C.A.V. Vandervell & Co. Ltd.
TRADE MARK, ACTON, LONDON, W.3

EDISWAN

Type A.R. Valves



Now Reduced to

4 volt, 0.75 amp.
Bright Emitter. Get
some to-day—two
or the old price of
one.

5/-

Leading Dealers
Sell Them

Edison Swan Electric Co. Ltd.

58 Clarence Street . . . SYDNEY

XXXXX

—Paton

A.W.A. 99 General Purpose Dull Emitter

Equally efficient as detector or as amplifier.

Economical in Operation.

The filament current is only 0.06 ampere.

Longer Life

The filament being of thoriated tungsten the power consumption and operating temperature are low—ensuring long life.

Efficient Performance

with uniform and quiet operation.

Dry Cells

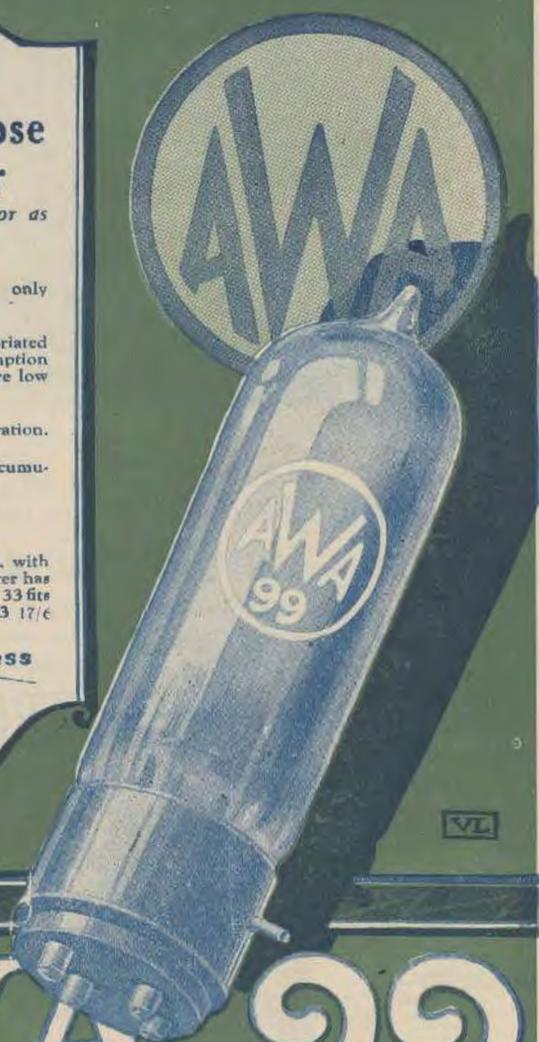
may be used in place of accumulators.

Price . 17/6

AWA 33 is similar to the 99, with the exception of the base—the latter has a standard 199 base, while AWA 33 fits an English "R" Socket. AWA 33 17/6

Amalgamated Wireless
(Australasia) Ltd.

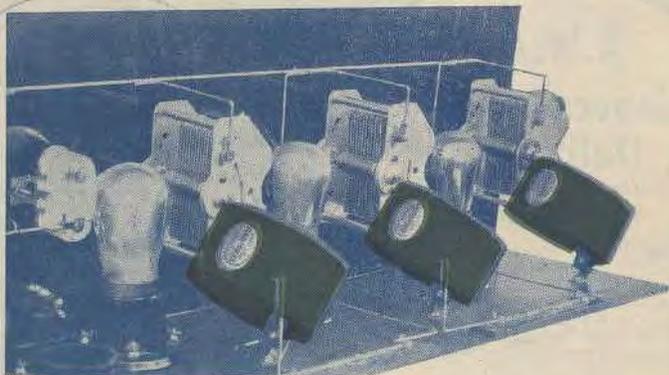
Pioneers of
valve manufacture in
Australia



VL

AWA.99

Special Feature : AWA 99 VALVES are MATCHED



A set incorporating Radiokes' Neutroformers.

THE EFFICIENCY OF ANY RECEIVER
depends primarily upon the parts used in its construction.

WITH THE NEUTRODYNE

perfect operation rests largely with the design and construction of the Neutroformers which of course must be mounted at the correct angle to ensure non-interference from magnetic coupling between the transformers.

RADIOKES NEUTROFORMERS

which are supplied ready for mounting at the proper angle, ensure maximum efficiency with the Neutrodyne.

Rugged Construction
Low Loss Air Spaced Winding
Attractive Appearance.

These are some of the features which have made RADIOKES so popular.

ASK YOUR DEALER FOR RADIOKES

Obtainable from Harringtons Limited, Colville Moore Ltd., W. Harry Wiles, Swain & Co. Ltd., and leading Radio dealers in Melbourne, Adelaide, and Brisbane.

Manufactured by : KEITH STOKES Pty Ltd., 27-29 King St., Sydney