These TWO PHILIPS UNITS - the TRICKLE CHARGER and the B and C POWER UNIT - and YOU HAVE COMPLETE POWER SUPPLY for D.C. RADIO

PHILIPS

HOW TO BUILD A MODEL AEROPLANE

THE MARTIN POWER AMPLIFIER

WHERE THE MUSIC COMES FROM
ALL the Highlights of the air are yours with the New Stromberg-Carlson Electric 3—yours with a clarity of tone and fidelity of reproduction such as you have never heard before!

You might well be in the crowded auditorium below the speaker's Rostrum, instead of listening-in on the broadcasting of the world's events from distant states—or within sight of this swaying wand of the orchestra leader—or watching the pianist's flying hands.

No note of the instrumental or vocal range is too high to come over the New Stromberg-Carlson Electric 3, with perfect clarity—none too low. Slurring, distortion, these are things of the past!

SEE—!

No need to be a mechanical engineer to appreciate the fine workmanship that goes into every detail of construction of the Stromberg-Carlson Electric 3. After you have had an "ear" demonstration, take a peep under the hood. SEE FOR YOURSELF!

Free Installation in Metropolitan Area.

HEAR!

There is one thing you can believe—your own ears! They will tell you quickly and honestly, which radio set is best for you to have. They will give you a swift, unprejudiced verdict.

LET YOUR EARS DECIDE!

£27.50 Complete with all Valves No Batteries—Just Plug in

Plus Speaker, from £2/15/-

Manufactured and guaranteed by Stromberg-Carlson (A/sia) Ltd.

72-76 William St., Sydney. Phone FL 4184.
The New Improved
VIKING
18 MONTHS
UNCONDITIONAL GUARANTEE
AGAINST ANY MECHANICAL DEFECTS
VIKING Audio Frequency TRANSFORMER
AT ALL DEALERS
SOLE DISTRIBUTORS AMPLION A/SIA 53 YORK STREET SYDNEY.
"Nothing Cheaper — Nothing Better!"
10/6
FOR TEN DAYS ONLY

FROM 12 NOON TO 2 P.M. IN OUR BARGAIN BASEMENT AT 386 GEORGE STREET, 12TH---21ST JUNE

SENSATIONAL BARGAIN PRICES

HUNDREDS OF WONDERFUL VALUES IN:
- Radio Sets.
- Loud Speakers.
- Eliminators.
- Phonograph Pick-ups.
- Kits, Condensers, Knobs, Dials.
- Pillowphones, Gridleaks, Rheostats, Transformers, etc., etc.

Prices on every line have been greatly reduced. Get in early for the cream of the sale. Remember that the bargain basement is open only between 12 noon and 2 p.m. Here are a few snaps taken at random—there are hundreds of others.

TRADED-IN RADIO SETS.
- 3 valve (set bare), from £4
- 4 valve (set bare), from £4
- 5 valve (set bare), from £5

PHONOGRAPH PICK-UPS.
- Electru tones 30/- each
- Grudeeke 30/- each

PILLOWPHONES.
- Only a few of these! Usually 21/-1, Sale, 12/6 each.

ELIMINATORS.
- Emmeo Super "B". Usually £12/12/. Sale £10/10/.
- Emmeo "A.B.C". Usually £15/15/. Sale £12/12/.

Newcastle Residents!!
Equally attractive bargains are being offered at the simultaneous sale being held in our premises at 84-86 HUNTER STREET, NEWCASTLE.
The Sale will close positively on the 21st June.

Harringtons LTD.,
386 GEORGE STREET, SYDNEY
Branches All States and New Zealand.
Who Tells the Best Tale?

C. N. BAEFERTZ
"My First Visit to the Lambs Club, with 'Pelorus Jack' in 1907."

THE STORYTELLER
"An Act of Piracy."

C. R. HALL
"A Tale of the Desert."

BASIL KIRKE
"A Case of Mistaken Identity."

BRINGA
"An Aboriginal Story."

PRICE CONIGRAVE
"An Incident in the Kimberleys."

£3 If You Can Guess Whose is the "Most Interesting Experience"

SIX of Australia's best raconteurs will compete to see who can tell the best yarn in the opinion of listeners in at 8.20 p.m. on Monday, June 17. Every one of the above talkers possesses a most varied experience from which to draw in telling "My Most Interesting Experience."

Listeners are invited to vote for their respective yarns in the order of their preference.

A prize of £3 will be paid to the listener guessing or most nearly guessing the correct order of the general public preference.

In the event of there being more than one correct entry the successful voter will be drawn from among the coupons listing the talkers in the correct order of preference.

The Editor's decision is final.

The photographs on this page are by courtesy of Howard Harris Studios, King Street.
W. E have been thinking lately about being a Postmaster-General. It's about the only thing that matters much nowadays. The days of Brigadier-General, General News and General Nuisances are now over. But if you can become a Postmaster-General or his deputy you can be sure of most of the limelight; besides, you can put your name on Tender forms more times than anyone else wants to read it; and if your ambitions run that way, you can make all the broadcasting companies in Australia smile sweetly as you pass them in the street. And that is something dear friends, . . .

TALKING about license fees - the English Postmaster-General, who is almost as great a man as our Mister Gibson, has told owners of portable sets they needn't take out licenses if they already have them for stationary sets. Great relief among English holiday makers, because the portable set seems to be porting considerably over there. Of course, or at least so we believe, the same thing was said out here some time ago; but nobody made any noise about it. Mister Gibson hasn't what journalists call a News Sense, which is either fortunate or unfortunate - we forget which.

BELGIUM has ordered a nice short-wave telephony set to talk to her Congo with. It has ordered something in the same shade to talk to her Colodies with. So even if British Officialdom is apathetic about short-wave broadcasting, Northern Queensland and Circular Quay are well provided for. When we want to know the price of spaghetti, we shall know where to go.

Of course, the British objection to short-wave Empire Broadcasting is that B.B.C. Announcements might refuse to speak plain English to their brethren in India, Egypt, and our other backyards. Or perhaps the authorities are waiting till the natives get acquainted with the B.B.C. Handbook on Pronunciation . . .

ACTORS for the B.B.C. have been added to the list of Unspeakable Persons. They can't have their names on the programs. This is the third of a series of movements by that celebrated monopoly towards keeping the public in the dark. First it was dance items; second, it was the announcer's name; in these two cases there were reasons. Dance band conductors were making money by announcing special numbers; and announcers were receiving too much attention from Sweet Young Things. But no one knows why actors' names may not be broadcast.

It is tolerably certain the actors themselves aren't behind the movement. If the B.B.C. goes on like this, it will become so time of the day with Mr. Townend, of the above reputable firm, and went to look for someone behind the scenes. Whether he found someone or not isn't known; but he found Aunt Willa's and Cousin Marjorie's purses, and passed out quietly, without fuss. The Johns scratched their heads and investigated; and soon the caretaker of a neighboring building came to light with two purses which had been carelessly left in the entrance hall. The Cash and Aunt Willa's Founting pen were absent; but otherwise everything was intact; so Aunt Willa and Cousin Marjorie found when they went up to the police station and signed for the stolen articles.

A PROFESSOR of Harvard University, America, says sunspots will stand in the way of good reception at the end of the year. Personally, we don't mind what kind of spot stands in the way of our reception . . .

NOW that "Wireless Weekly" has started sponsoring the Model Aero Club, you must know the joke about Aeroplane poison - one drop kills you . . .
A FEW weeks ago, Mr. Oswald Anderson, manager of the New South Wales Broadcasting Company, Limited, was guest of honor at a performance of the Rose Bay Music Club, which was being broadcast. Mr. Anderson was given fifteen minutes during the intermission to explain to a crowded house of Rose Bay musical enthusiasts something of what broadcasting means. He gave them several facts and figures, and he was surprised when many people came to him afterwards and spoke interestedly on the things they had heard. They had never believed it was as he that.

Mr. Anderson stressed this point, that the highbrow listener must not insist upon more than a due proportion of broadcasting programmes for his special benefit, and pointed out that, although he was a lover of good music, he was only 12 per cent. "classic." as only that amount could be devoted to the highest form of music. This percentage of "classical" music agreed with similar proportions in Great Britain, and almost similar figures in America.

The New South Wales programmes contained 15 per cent. less music than those of the N.B.C., but of this 15 per cent. 10 per cent. was devoted to utility, and the balance is sporting. The figures were, roughly, as below—

<table>
<thead>
<tr>
<th></th>
<th>Great Britain</th>
<th>N.S.W.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>62 per cent.</td>
<td>45 per cent.</td>
</tr>
<tr>
<td>Utility</td>
<td>5 per cent.</td>
<td>15 per cent.</td>
</tr>
<tr>
<td>Education</td>
<td>15 per cent.</td>
<td>10 per cent.</td>
</tr>
<tr>
<td>Sporting</td>
<td>0.5 per cent.</td>
<td>8 per cent.</td>
</tr>
<tr>
<td>Sum total</td>
<td>72.5 per cent.</td>
<td>68 per cent.</td>
</tr>
</tbody>
</table>

The balance on both stations for religious services, studio plays, Children's Hour, and stunts or outside events were practically equal, within a decimal or two.

Dealing with the question of broadcasting two programmes a day, of a total of 25 hours a day (or 156 hours a week), Mr. Anderson stressed the difficulty of avoiding repetition and monotony when it was realised that the company transmitted at the rate of 1250 musical items per week.

Where does the music come from? Every listener contemplating the vast number of musical items broadcast each year must have asked himself this question. There is an answer in the article below.

Can the man in the street realise what this means? 85,000 musical items a year. Miles and miles of musical notation.

Where does all this music come from? Of course, there is much repetition; there has to be, but, even so, where does it come from?

Let us see by throwing the light on the activities of an artist of the N.S.W. Broadcasting Company, who, like others, is called upon to find new pieces.

At about half-past ten on a bright winter morning, Mr. Carlton Fay was in the rehearsal room at 2FC, arranging music in piles. And, as he piled, he spoke with himself in a strange, awful manner, suggestive of the old-fashioned sorcerer. "Three-four; have I enough of three-four? There's an opening; now a three-four. Have a two-step here, and a six-eight after that; now, what is there for the middle and the end? Two-four; six-eight; jazz here; now a wall; end it up with something oriental. I'll have to go round to the library."

Mr. Fay became aware of a stranger. "Hello," he said, "isn't that bad? I've got to go round to the library this morning, Mr. Carlton Fay was in the rehearsal room at 2FC, arranging music in piles. And, as he piled, he spoke with himself in a strange, awful manner, suggestive of the old-fashioned sorcerer. "Three-four; have I enough of three-four? There's an opening; now a three-four. Have a two-step here, and a six-eight after that; now, what is there for the middle and the end? Two-four; six-eight; jazz here; now a wall; end it up with something oriental. I'll have to go round to the library."

Mr. Anderson looked up to make sure his visitor saw, and then looked at his watch.

"Time to go," he said, and gathered up his music. "I'm on in two minutes."

"But the music library, Mr. Fay?"

He stopped at the door. "Never seen a music library? You be here at eleven-thirty to-morrow morning, and I'll take you!"

"Here you are," said Mr. Fay. "This is the library. 'Morning, Miss Maling!"

The room was disappointing. Not very large. One had expected something more impressive. Against the walls, all round, were pine shelves, each shelf full of music, and each shelf ticketed. Before one of the large windows there was a table, littered with music waiting for repairs.

"All the music here is instrumental," he said. "You can get anything here in full score, or for brass quartets, or special combinations. It's all arranged in classes. Over there you have jazz and ragtime and waltz stuff. Here's your light drama, and here's your heavy drama, and here—"

"But what's light drama and heavy drama?"

The pictures brought the terms in. You see, when the conductor of a picture theatre orchestra wants music, he sees a special screening of the show he has to provide music for, and makes notes of the kinds of music he needs for each mood of the picture. Then he comes here. When he wants music for sad or stern, or rain, or something like that, to fit sudden effects, such as lightning or thunder, or rain, or something like that, to fit in with a dramatic moment. There's music specially written for these, too. "Fil-haa-

Friday, 14th June, 1929.

WIRELESS WEEKLY
ROSS A. HULL
NEW TECHNICAL EDITOR

It has always been the aim of "Wireless Weekly" to present the most reliable and latest technical information to its readers, and in this respect it has built up a large reading public interested in the technical development of radio. Continuing its policy in this direction, "Wireless Weekly" now announces that it has secured the services of Mr. Ross A. Hull to direct a comprehensive technical programme covering future issues.

Hundreds of readers will remember Mr. Hull as Federal Secretary of the Wireless Institute some years ago, and as an enthusiastic and efficient amateur experimenter with many records to his credit. Since that time his name has become well known throughout the world as an associate technical editor of "QST," the official organ of the American Radio Relay League—the great amateur organisation which has thousands of members in every country of the world.

When the League's special technical development programme was undertaken, after the Washington Convention changed amateur wavelengths, Mr. Hull was appointed director, and it was his formidable duty to solve the numerous problems arising from the new conditions. His work in this direction is described by "QST" as follows:

"His 'program' articles have been the high-lights of 'QST' for the past year. That work was often done under very trying conditions, with the great desirability of finishing a certain problem in time to report the work in the next issue of the magazine, necessitating the pouring out of an unbelievable number of bolts of both a constructive and a destructive character. His laborers have answered our difficulties, and his articles have set the new 1929 standard in the literature of our hobby."

Farewelling Mr. Hull, K. B. Warner, in "QST" further says: "He carries back to Australia two and a half years' experience at A.R.R.L. Headquarters, watching the wheels of amateur radio the world around. From this contact we hope for even closer relations with the Australians, whose honorary technical secretary Mr. Hull was before coming over. Personally, we think he ought to be elected president of the Australian outfit, appointed technical adviser to the amateur empire, and presented with 1000 assorted tubes by the Radio Corporation. In other words, we shall miss him."

Mr. Hull, therefore, comes to "Wireless Weekly" fresh from America, with new ideas for Australian readers. His articles, appearing weekly in the history of Australian broadcasting, will undoubtedly create wide-spread interest.

His first article will appear next week.

Early English Music

A PROGRAMME of early English music will be given from 3½ O on June 18 by the Heidelberg District Choral Society, whose programme includes madrigals of the 16th century, and some old English children's game songs, including "Adam and Eve" and "Oliver Cromwell." It is interesting to note that the part song "Summer is acoming in" is the first song to be actually recorded on sheet music, all previous melodies having been handed down through the ages by "word of mouth." Miss Lorna Dean (soprano) will continue some of the "Nursery Songs of the Seventeenth Century," and Frederic Earp will be heard in baritone solos.

The R.S.S.I.L.A.

(0 Friday, 14th June, 1921)

The World's Influence and the Returned Sailors and Soldiers' League of Australia, popularly known as the R.S.S.I.L.A.
I REPEAT I inveigled the engineer into conversation, so that he finally asked me if I would like to hear some wireless signals.

Would I? Would I not—and, with bated breath, entry was made to that sacred den. The apparatus that greeted my eyes held me spellbound. Weird and wonderful gadgets, which seemed awe inspiring and formidable, were everywhere.

There were long black shining coils, reaching in a vertical position almost up to the ceiling, with, at the base, glistening switch- es, with innumerable switch points. There were variable condensers, which would make me sit down and weep to attempt the construction in these days. They consisted of interleaved, full-plate photographic negatives (minus the film) and coated with tinfoil. (I thought at the time that the owner must have gone round the chocolate stores to get all that tinfoil.) The capacity was adjusted by pulling one set of plates in and out with a broom-handle arrangement, and the radio bug bit me deeply for all time.

The apparatus that greeted my eyes held me spellbound. Weird and wonderful gadgets, which seemed awe inspiring and formidable, were everywhere.

The capacity when the plates were fully interleaved was 500,000,000,000, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished, and near by these two big crystals covered in little glass cases, great spirals of copper tubing brightly polished. 

A short-wave telegraphic key completed the array, and after drinking all this in, I waited for things to happen. Outside through the window could be seen the town hall clock. My Genii called attention to the fact that it was just 7.55 p.m., and put a pair of telephone on my ears. After tinkering around with one of the little glistening crystals for a minute, he told me that exactly at 8 o'clock I would hear the press messages begin from the mighty Eiffel Tower over in Paris, and told me to keep an eye on the clock. Eight o'clock struck, and just as the last metallic boom of the clock died away, sure enough a loud crackling musical note began spluttering in my ears.

Two years later the press news from the Eiffel Tower were old stuff to me, but on this occasion the whine of that note from a distant source, and such a distance, impressed itself very forcibly on my memory, and the radio bug bit me deeply for all time. I was allowed to listen spellbound to PI for a time, when Mr. Engineer touched the broom handle a little, and another and clearer note came in just as strongly. This was Poldhu, the great station down in Cornwall, it was explained to me, and even in these days of hard-bitten telegraphy, I have yet to hear a note as pretty as that. In connection with the old Poldhu station, an enthusiastic wireless amateur wrote to a London wireless journal, just after war broke out, sadly bemoaning the closing up of all amateur stations, and contributing a brief poem, which began: "Aha, Poldhu, gone is thy blaring bugle note." A fitting description of the signals put out by that pioneer station. That this was all sufficient at a time when the writer was young, and wireless telegraphy itself only a baby, to arouse life-long interest in the science goes without saying.

A month or two went by, and then I saw a description of how to make a wireless receiving set. All that was wanted was one of the rolling-pins used for flour in the kitchen (when no one was looking) some of that wire the man connected up the electric bell to the front door with, and probably the chemistry master in the school "lab" would let me try a small piece of the iron pyrites in the small glass bottle for the crystal.

The head phones? Yes. I was the fortunate possessor of a Bell telephone earpiece, with a long handle I had traded in for my latest catapult. Accordingly, a lot of wire was wound round that rolling-pin, tinfoil and paper pressed into solid masses with a hot clothes iron, a piece of springy brass arranged to make contact with the crystal, and, amid expostulations from the family, a really imposing aerial slung from chimney to chimney. The result was a long and complete silence.

Every night, at 8 p.m., I would wait for the Eiffel Tower to start his press. Nothing doing. Weeks and weeks went by, and then suddenly something happened to break the monotony. A thunderstorm broke close by, and I sat, fascinated, listening in that old earpiece to the simultaneous crack of each lightning flash, until the powers that be tore me forcibly away for fear I should be electrocuted. This was a heart-breaking business. The audibility of the lightning flashes showed that the set should be able to receive something. Something was wrong somewhere.
and a terrific row from a snarling spark—and said: "Hear that? That's an amateur man was persuaded to listen to my receiver from the great liner Titanic, this gentle-light of a hero, because he heard the S.O.S. never say die. When grid biasing is required, this may be readily obtained by placing a drop introduced by a fixed resistance of proper value in the grid return lead to the grid, as shown in the second diagram.

HUM CONTROL

for A.C. Filament Values

The usual source of hum in the A.C. filament type valve is to be found in an unbalanced grid or in the unbalanced condition of the tube filament. Usually the hum occurs at a filament current employing a centre-tapped transformer winding, or at a grid filament resistance. It is also liable to introduce hum. In both instances, it will be noted, there is no provision for compensating for any unbalance in the circuit.

With the recent introduction of an improved centre-tap adjustable resistor by the Oslawat organisation there is no longer any excuse for hum in the A.O. filament type valve. The device, which is exceedingly compact and arranged for one-hole mounting in panel or sub- panel, or again on the baseboard, is connected as shown in our first diag- ram. Even if a centre-tapped transformer winding is available, it will be found advantageous to disregard the centre-tap and to employ the adjustable centre-tap resistance, since the grid return is then as near as possible to the voltage filament.

When grid biasing is required, this may be readily obtained by placing a drop introduced by a fixed resistance of proper value in the grid return lead to the grid, as shown in the second diagram.
ERNEST M'KINLAY.

E. R. ERNEST M'KINLAY is a New Zea-
lander. He sings. In the first place
he was a pupil of Mr. Harold Brown-
ing, and made quite a name for him-
selving oratorio, a kind of music very
popular over there.

When the war drifted along Mr. M'Kinlay
joined the New Zealand Expeditionary Force, and
served four years overseas. During this
time he was associated with the "New Zea-
land Kiwis," a concert party well known
together in the baizehexd, and which ap-
peared four times in Paris. Later he was in
charge of the divisional concert party with
the army of occupation in Colenworth Falls.

Then he went to London, and pursued his
studies at the Guildhall School of Music, and
with Mr. Plunkett Greene, then returned
to New Zealand; spent some time in a military
hospital; was discharged; took up oratorio
again, and wandered over to Australia, this
fair land of ours, in 1922.

In Brisbane he sang in Qoom's "Faust "
and Berlioz's "Pastu." In Sydney with the
Philharmonic Society he sang in "Elijah"
and "The Messiah." The Sydney press, what-
ever that is, said his was the finest perfor-
manee of "The Messiah" ever heard in Sydney.

Mr. M'Kinlay then toured Australia on the
Musgrove vaudeville circuit. Then he joined
the Westminster Glee Singers on a tour
through the Malay States, Burmah, and
India. When the party broke up in Ceylon
he went on to South Africa. Through tropic
seas, as Uncle Bas might say.

In 1923 he returned to London, and sang
Maori songs in the New Zealand pavilion of
the Wembley Exhibition for three months.
While he was in London he studied under Mr.
Spencer Clay, who has polished such pretty
diamonds as Joseph Hiaip and John McCor-
mac. He also became associated with the
"Not Forgotten" Association there, which
organises entertainments and outings for
veterans on 15,000 soldiers who are not yet
recovered from their wounds. He sang at
more than 200 concerts of the association be-
fore many of Eugenia Buggs. He sang at
garden parties at Buckingham Palace, and
was presented to Princess Mary and the
Prince of Wales.

He returned to Sydney in 1928, sang the "Creation" with the Sydney Philharmonic
Society, and sailed to Canada, where he
traveled with the Westminster Glee Singers
until the temperature went down to 60 below
and he had to come home.

During his travels Mr. M'Kinlay has sung
from many broadcasting stations, the chief
being 2LO in London and WEAF in Noo
Yank.

"Syndie broadcasting," he says, "is almost
as perfect as one could desire. All great
events are broadcast; all tastes are catered
for, and reception is remarkably clear. I
noticed then artists make only one appear-
ance in an evening in London. Out here,
of course, there are generally two appearances. In London the artist sings a group of songs,
lasting for about 15 minutes, and thanks
Heaven that's over. I suppose listeners in
out here might grow tired of the longer
appearance.

"I heard the broadcast of the Tunney-
Dempsey fight in America by Graham
Bryam, their famous sporting announcer. It
was remarkably powerful. I am not sur-
prised that 14 people died during this de-
scription. They are very keen on sporting
broadcasts in America. My experience is
that you don't get a fee for broadcasting in
America unless you join a sponsored pro-
grame party. These are run by firms ad-
vertising over the air, who generally give very
fine performances; but I didn't like to hear
them advertising goods after every pro-
grame. Of course, it's the easiest thing
imaginable to slip from an American station
almost anyone may do it; but the stations
themselves don't often pay performers. This

How the Boddington Broadcasters Broke Down

YOU probably have heard of the sad break-
down of the 2BL concert party on its way to
Boddington Hospital at Wentworth Falls. The
fact that Aunt Willa had with her in
the car the birthday letters, which were to
have been answered during a children's ses-
son conducted from the hospital, only made
it worse. But the breakdown itself was really
a most remarkable and spectacular affair.

Mr. Oswald Anderson was driving when the
breakdown occurred. The car was almost fully
charged as the tyre deflated; but how on earth

placed his foot against it "to see it didn't
slip." "Very amusing," says Mr. Anderson.

But when the spare tyre was focussed
on the pump; but all hands were also tired;
so it was decided to cruise along to the
nearest garage. There one of the attendants
heard that Mr. Charles Lawrence was among
the party. He called out his friends to come
and have a look at it; and the car was at-
tended to in quick time. Mr. Charles Lawrence
is a handy man to have on such occasions.
Then, having promised to call the garage
people that night the concert party probably made their way back to the station. This

ELSIE STEELE.

MISS ELISE STEELE left Australia to
tour the world, and is now returned.
Among other places, she visited London and
Noo Yank. In Noo Yank, the "Musical Di-
gest" digested her as follows, although we
have cut out half a column:

"Recent seasons have produced a goodly
number of successful musicians; and one
who will take a foremost place among wo-
men violinists of all time is Miss Elise Steele.
Miss Steele displayed great flexibility of
bowing, tone-quality, and dignity of style.
(They don't write very correctly, these Ame-
rican critics.) "At her appearances in the
Guild Theatre, she played Nardini's Con-
terto in B Minor with a delightful severity
of mood, and made the Brahms Sonata
stand out as a portrait of transcendental in-
spiration."

Just like that! We mean to say, anyone
who could do that must be pretty good. We
couldn't do it. We wouldn't even know what
a transcendental inspiration was; so you
may understand how hard it would be for a
member of the "Wireless Weekly" staff to
make a Brahms Sonata stand out as a por-
trait of it.
How to Make the Model R.O.G. 'Plane

Already hundreds of letters are pouring in from 2BL listeners interested in the proposed Model Aero Club of Australia. Sessions will be broadcast every Wednesday from 2BL at 6.20 and constructional details of a series of model 'planes will be published in "Wireless Weekly." Watch for further announcements.

Here's the 'plane—The Baby R.O.G.

(Rise Off the Ground)—that will start you on your career of model building.

"Wireless Weekly" has selected this model as the beginner of its series of aeroplane model articles, because it is light and strong, and easy to build.

The Baby R.O.G. has a 12-inch wing spread. It will take off from its own landing gear, circle soundly in the air for nearly a minute, and make a smooth, three-point landing. Even experienced model builders never tire of it, because it is such an active little performer.

Some of the materials you'll need are white pine or sugar pine; Japanese Imperial tissue paper, for the wing surfaces; piano wire for metal fittings; bamboo for ribs, landing gear, and cross-pieces; banana oil to stick the paper surfaces to the frame; and seccotine to glue the plane together.

Some of these materials are not easy to get in small quantities, and for that reason "Wireless Weekly" has arranged with the Boy Scouts Association to supply kits containing the necessary materials for building one 'plane, AT COST, to model builders. If you wish one of these kits, you may obtain it by getting in touch with the association, 258 George Street, Sydney.

You'll not need many tools. A knife—a sharp one—and you will find the sugar pine easy to curve—a pair of round-nosed pliers for bending piano wire, and a small block plane will do the job.

Before you start, study the drawings and the pictures. Locate each part in your mind, and be sure you understand what purpose it serves. When you're satisfied that you understand the drawings, you're ready to start actual construction.

Begin with the fuselage. That's the stick of sugar cane running from the propeller to the rudder. Finish the rough stick with block plane and fine sandpaper to the dimensions shown in Fig. I.

The front bearing, shown on the front end of the fuselage, in Fig. I, is a small piece of sheet brass not more than half-inch long and an eighth-inch wide—and drill a hole near one end with a number 22 drill. Bend the brass strip as shown in the drawing. If you have no drill, punch a hole through with a gramophone needle. Glue it to the top of the front end of the fuselage with seccotine, and bind on with strong cotton. When firmly bound, give binding a coat of seccotine, and leave to dry. This is the bearing through which the propeller shaft runs.

Next, bend the rear hook from a piece of .020 music wire, as shown above Fig. I. You can shape it with pliers, and you need not bother about the exact dimensions, provided the entire hook is not longer than 1-inch when it is finished. Cement this hook to the top of the rear end of the fuselage stick.

Now, bend a wire "can" from .015 music wire. You'll find a picture of one in the drawing of the kit. The can should fit over the fuselage stick and extend about 1-inch above it, just high enough so that it will clear a string extending from the propeller shaft bearing to the rear hook. Cement and bind the can to the centre of the stick, as shown in the drawing.

To construct the rudder, draw the outline of the frame, as shown in Fig. III, on a piece of paper, the exact size it is to be. Then split off a piece of bamboo 1-32-inch square and 11 inches long. Heat the strip evenly over an open flame, or the spot of a tea-kettle, and slowly bend it to the shape of your drawing. Bamboo is very flexible when heated, and when it cools it will retain its shape. It is tricky, and may cause you difficulties, but after you've experimented with it, you won't have any trouble. One good method of bending bamboo is to heat a piece of pipe or round metal and bend your strip over it.

To attach the rudder to the fuselage, say Fig. III, with your knife, cut a small groove in the bottom of the fuselage to receive the projecting base of the rudder. Secure the two together so as to form a continuous line with the under-side of the fuselage. Be sure that the rudder stands up perpendicular to the fuselage stick.

The tail surface, shown in Fig. III, consists of a cross-rib of bamboo, seccotined into a groove in the under-side of the fuselage and an outline of silk thread. It's not at all difficult to put on this thread frame. Just watch the dimensions in the drawing, to be sure that the thread goes to the under-side of the motor stick.

Now get your Japanese tissue paper, and iron it out smooth. If you've used a lot of iron, let the paper cool a couple of hours before covering the tail and rudder. This permits the paper to regain room temperature—otherwise it will sag in your frame.

All the materials you will require for the construction of the R.O.G.
First of all, cut a piece of the tissue slightly larger than the frame of the rudder. Then paint the bamboo frame of the rudder with seccotine. Lay the paper on the frame, being careful to smooth out all wrinkles. After you've covered the rudder, trim off the extra paper, and coat the cut edge with seccotine to make it stick to the frame. Cover the tail in the same way as you did the rudder, but in this case do not fold the edge. The rudder, however, is a simply left about 1-32-inch of paper extending beyond the thread on all sides. You can get a neat edge on the paper over the fuselage, and coat the cut edge with seccotine. After you've covered the rudder, trim off the extra, being careful, as shown in Fig. I. The two points to remember, on this job, are that the rear clip is 3-8-inch higher than the front, and that the groove in the top should be made to fit tightly over the fuselage. When you have them finished, glue each to the centre of a wing spar.

Remember that the wing is just about the most important part of the 'plane. If it doesn't sit on the fuselage (motor stick) square with the tail, the 'plane will not fly.

Cover your wings with Japanese tissue, just as you covered the tail surfaces. Start at the middle rib, and cover a section at a time, working outwards.

Carving the propeller is a bit tricky, and it might be well for you to practice on another piece of wood before using up your propeller block. When you start on the actual propeller, be sure to square up your piece with the block plane to just 3-8 by 1 by 5 inches. Then draw diagonal lines on each 2-inch face, as shown in the drawing, and at the intersection of the diagonals push a pin through the block. This is the hole for the propeller shaft.

Now, at the ends of the block, draw diagonal lines, as indicated in Fig IV. Be sure that the line on one end connects opposite corners to the line on the other. After the lines are drawn, you're ready to carve the propeller, step by step, as the drawing indicates. Some boys have trouble making their first 'planes fly because their propellers are too thick. Sandpaper them down until you can hold them up to a window and see the light shining through the wood.

(Continued on Page 20.)
Special Feature Programmes

Some Interesting Entertainment You Should Not Miss

**All Australian Night**

**MISS GLENN M'GARRITY**, honorary secretary of the Society of Australian Composers and Authors, has arranged an All Australian programme, which will be transmitted from 2BL on Tuesday, June 18. Every item is composed, and is to be performed by Australians.

The president of the society (Mr. Arthur Crocker) will make a few remarks by way of opening. The programme then begins with an instrumental trio by Mr. Charles Davey, who will play a group of piano solos of his own composition later in the evening. Miss Glenn M'Garrity will be represented by two songs and two compositions for piano forte. Miss Emily Carroll Peterson will accompany her own settings of three Australian poems. Sydney M. Garr will sing his own songs, and monologues at the piano. Miss Ne. Hallett will sing a song by Mr. Edmund Samuels. Miss May Summerbelle will accompany her own settings of three Australian poems. Sydney M. Garr will sing his own songs, and monologues at the piano. Miss Ne. Hallett will sing a song by Mr. Edmund Samuels.

The programme then begins with an instrumental trio by Mr. Charles Davey, who will play a group of piano solos of his own composition later in the evening. Miss Glenn M'Garrity will be represented by two songs and two compositions for piano forte. Miss Emily Carroll Peterson will accompany her own settings of three Australian poems. Sydney M. Garr will sing his own songs, and monologues at the piano. Miss Ne. Hallett will sing a song by Mr. Edmund Samuels. Miss May Summerbelle will accompany her own settings of three Australian poems. Sydney M. Garr will sing his own songs, and monologues at the piano. Miss Ne. Hallett will sing a song by Mr. Edmund Samuels.

The chief character in the play is Major Sergius Baronoff, in whom the dramatist has portrayed the more worldly shortcomings of the blase Byronic type, whose sexual attributes he handled much better in "Man and Superman." Sergius is the sad, tired, and self-conscious aristocrat, who poses, and poses and poses. He "never withdraws.

Raina, his fiancée, is in love with her ideal idea of Sergius, which is for a young girl to envy through the play by the influence of Captain Bluntschil, a Swiss mercenary in the Bulgarian army, who seeks shelter from the Serbian troops in her bedroom. This young man is the mouthpiece of Shaw's ideas on soldiering, which, true to the Shavian tradition, are concerned more with foibles than fighting.

Catherine and Major Peckoff are Raina's provincial but well-to-do parents, who are very proud of their library (not much of a library). Louka is a clever serving girl, who wants to receive the same attention from society as does her mistress Raina. Nicola, the serving man, is a cunning rascal, almost as astute as Louka, but the people in this paragraph only support the main action.

The first scene is in Raina's bedroom, late in November, 1886, at night. The second is in the garden of Major Petkoff's house on a fine Spring morning, March 6, 1886. The third scene is in the library after lunch.

**Miss Eileen Boyd**

**MISS EILEEN BOYD** will be 2FC's special feature for Thursday night, June 20. Miss Boyd is a New Zealander, and has had a varied singing career through musical comedy, revue, the concert platform, opera, and grand opera. She spent 12 years in England, and sang at "Al Hambra" at the houses of the English nobility. The English aristocrats have taste, after all.

**Studio Radio Plays**

It is being definitely established that studio plays are getting a stronger hold on listeners. The British Broadcasting Corporation, London, devotes two per cent. of its programmes to these. 2BL and 2FC fall a little short of this percentage, but as technical and factory arrangements have now been made to ensure more complete productions from the studio the following programmes have been set out.


"Fea for Tupper" through 2BL, on July 16 (H. W. Varna).

"My Lady's Eyes" on Thursday night, June 20. The British Broadcasting Corporation, London, devotes two per cent. of its programmes to these. 2BL and 2FC fall a little short of this percentage, but as technical and factory arrangements have now been made to ensure more complete productions from the studio the following programmes have been set out.


"Fea for Tupper" through 2BL, on July 16 (H. W. Varna).

"My Lady's Eyes" on Thursday night, June 20.

Humorists I Have Met

**MR. C. N. BAEBERTZ** has already proved himself to be one of the most amusing talkers in his visits to Australia. He has met—Mark Twain, Bernard Shaw, and O. Henry. Mr. Baeyertz is a polished speaker, with very exceptional reasoning power, and a keen sense of the ridiculous. His talk, on June 11 will be of Frank Baeyertz, the brilliant author of "Vice Versa," which was for many years a prominent contributor to "Punch." During the causerie, Mr. Baeyertz will read Anstey's witty satire, "At Homes..." and French Play..."

On June 20 the subject will be the famous Canadian wit, Stephen Leacock. Then follow the distinguished Victorian dramatist, Frankfort Moore, author of "The Jemmy Bird" and "According to Fate," whose witty platonic affections are to be given; H. L. Mencken, the editor of the American Mercury, and author of numerous comic essays. Mencken is a master of wit, irony, and invective.

It is a curious circumstance that so many humorists have followed callings that we would suppose could have afforded them such opportunities for the display of wit as humor. "Lewis Carroll was a mathematics professor at Oxford, and it is said that when he was charmed with his "Alice" books, ordered everything that he had written, and the great little lady received, in its fullness of time, a learned work on the differential calculus, and another treatise in the brahminical theorem."

Kenneth Graham, the author of "The Golden Age," that most fantastic and curious of children's books, was secretary to the Bank of England. Charles Lamb was a clerk in his office, and Leacock is professor of Political Economy at the M.I.T. University.
THE 2BL Women's Sports Association will hold its annual meeting in David Jones's dining hall on Wednesday, June 26. That's positive, Miss Varley tells us. We repent that all members of clubs and their friends are invited although club members can have friends who are not also members of this wonderful association we don't know. The cost will be 1/6 each. Club secretaries are asked to send Miss Varley statements of the number going from each club.

Miss Varley's Session

THE annual meeting of the 2BL Women's Sports Association will be held in David Jones's dining hall on Wednesday, June 26. That's positive, Miss Varley tells us. We repent that all members of clubs and their friends are invited although club members can have friends who are not also members of this wonderful association we don't know. The cost will be 1/6 each. Club secretaries are asked to send Miss Varley statements of the number going from each club.

A.B.C.
New Company to Take Over Broadcasting

A B C radio is to press, news has been received of the acceptance of the Australian Broadcasting Company's tender for the National Broadcasting programme. Mr. Stuart Doyle, Chairman of the new Company, made the following statement to "Wireless Weekly"—

"We don't intend to alter the rhythm in any other manner than one which will place it on a high and elevated plane. On the present number of the programmes, it will be impossible for the programmes we have in mind to be a financial success. We believe that with the co-operation of the Government and the Wireless Trade we shall be able—capably to increase and ultimately to double the number of listeners. We feel that our methods will win the goodwill of all listeners, and intend to ask them to realise that the more they can interest in becoming listeners the bigger the profits will become the programmes."

"This is possible because profits are directly limited by our company, and the terms of our contract. Every cent of revenue received by us from additional listeners will be put into programme improvement. We are completely optimistic of getting the wholehearted co-operation of everyone associated with Broadcasting in our endeavours to place it on a National plane."

Mr. Doyle stated that Mr. George Sanders (of George, of the A.B.C.) will be associated with the new Company. The only interests represented in the Australian Broadcasting Company are Union Theatres Limited; Valley Theatres Limited; and J. Albert and Son.

Wireless Weekly went to press too soon to delete Mr. Kelso King from the opening ceremonies of the 2BL Boy Scout section last Tuesday. We now make our bow to Sir Kelso King.

Latest information is that the electricity operated ship, Brunswicke, will arrive in Sydney on Thursday, June 24. If this happens, Mr. Norman will probably take a party over her during the week-end.

The next visit of Mr. Norman's radio party will very likely be to Mascot aerodrome. Mr. Norman is trying to get permission from the authorities. The fact is, most of Mr. Norman's efforts are about air matters, and in his ballot recently most votes went for Mascot as the next place for investigations. But it's all in the air.

Latest interesting questions are: Where is the Garden of Eden? Tell me a cure for ticks in dogs? Are there any men on Mars? Who made the canals on Mars?

Last Thursday Mr. Norman judged an exhibition of Scout Cubs handiwork at Grace Baptist Church. The exhibition was opened in the afternoon by Miss Varley, wife of Admiral Varley, our new naval commander. Twenty-seven packs are represented, and there are 400 exhibits. The exhibition will close today.

Captain Stevens

DURING the mornings of the week, Captain Stevens will take up again his investigations of short-story thrillers. The Captain tells us these are the most exciting stories he has ever read. On Saturday his talk will be on "Easy ways of being good," which sounds deep and searching. On Sunday the "Woodbine Willie" series will be hear on "Lies and Liberty," which maps out the trail we must follow to make democracy "more than the grandest of our dead dreams."

Mr. Perry's Session

NEXT Saturday Mr. Perry will broadcast the racing from Rosehill, the June Winter meeting, which has proved very popular with racegoers. From now on, since the nominations have been received for the Epsom and Metropolitan Handicaps, in Sydney, and the Caulfield and Melbourne Cups in Melbourne, the results telegraphed from SRC on Tuesday, Thursday, Friday, and Saturday mornings will be broadcast with the latest information about horses engaged in the big events of the spring.
Thus model aeroplane building may be said to be the basis of successful aeronautics, and readers who build from the instructions in "Wireless Weekly" articles will be following in the footsteps of the most famous of aeroplane designers. They will become air-minded, and in this manner fill the most pressing need in Australia, whose future, it has been already demonstrated, lies in aviation.

3LO MUSICAL FEATURES

Royal Liederfestival Programme

ROY ON Monday evening, June 10, 3LO will broadcast a special programme by the Royal Victorian Liederfestival, conducted by J. Ashton. The pianist will be Lindsay Biggins.

Schubert Piano forte Recital

LINDSAY BIGGINS is to broadcast from 3LO on Monday evening, June 10, a Schubert recital, including the following numbers:—"Impromptu in C Minor," "Impromptu in G Minor," "Moment Musical, A Flat Major," "Moment Musical, F Sharp Minor.

University Symphony Orchestra

CONDUCTED by Professor Bernard Heine, the University Symphony Orchestra will render a special broadcasting programme for 3LO on Friday evening, June 14. Miss Myrtle Wise (soprano) will be the vocal soloist.

BUILDING A SET.... No. 5
No Need to Nurse Queensland

Dear Sir,—In "Wireless Weekly" (24/5/29) there was an article on radio listeners in Queensland, and I have been under far more capable management than we have at present. The article will look after the listeners in general, and not just a favored few. Some time ago in "Wireless Weekly" (15/3/29), under the heading, “Twelve Months—Hard,” a writer speaking himself “Easy to Please” told us that he had had a license for three years, and that he had had the same artists, same old orchestras, dished up under different names, and that he had heard people say they are out of work, wharf lumps being kept on. Well, I don’t know what they are, but I’m sure that the wharfies would shudder. They are supported by the management of 4QG class as artists. They will increase in leaps and bounds.

If our local management were to follow the management of 4QG, they would increase in leaps and bounds.

West Australia, Tasmania, and Queensland will express my opinion on the subject of the stations. They will let them look after the artists, and when that is done there will be a far bigger sale of wireless sets in Queensland.

No, sir, we don’t want anyone to carry our baby. Our baby is big enough to walk, only it is not allowed out of the nursery, and it has the same nurses every week to keep it from advancing, because they know that as soon as it gets on its feet and can look after itself they will have to make room for a more advanced teacher. Let us have a couple of “B” class stations that can compete with the “A” class stations, and we will have 24.627 listeners, and it is only a red, red rose, only a red, red rose.

In conclusion, I say, let us teach our baby to look after itself. All it requires is a new teacher and new play toys (artists).

Yours, etc.,

FOR NEW MANAGEMENT:

Brisbane

A Broadcasting Litany

Dear Sir,—Hereewith a Broadcasting Litany.

From mezzo-sopranos who sing "Land of Hope and Glory";

From male oboists who reproduce "The Green Fly on the Little Yellow Dog";

From female elocutionists who emit "Twas only a red, red rose";

From baritones who sing, "The Floral Duet";

From philosophers who laugh at their own (alleged) humor.

From the following gramophone records:

"The Wembley Tzigano," "In a Clock Store," "The Wanderer and his Dog," "From Paris of Christ who are aware (all too aware) of their unseen audience, From items by the Wooprah Citizens’ Municipal Band;

"Women Lines Among the Odd" in any or whatever form whatsoever, played, hummed, or only mentioned, From everything else that I’ve forgotten to mention—

"Whoa Good Lord Deliver Us."

(With acknowledgments to numerous correspondents whose letters prove that they are in sympathy with my views.)

Yours, etc.,

CAMPBELL, NORTH CROFT.

North Bondi.

Programme Suggestion

Dear Sir,—May I correct Mr. O. Vernon, who seems very confident that it was enjoyment that prompted me to raise my pen. No, my friend, it was not as you assert. I did so in sincere and practical sympathy, considering the most painful ninety minutes of high brow broadcasting on record. In typical Mussolini style I have received my remedy,—"Tune in elsewhere or fade out."

May I most respectfully inquire from what station am I to receive the suitable programme on Sundays. I am positive nothing better than 2BL broadcast anything lighter than the occasional item from the Manly Band. My "kick" is with the local "A" class stations, whom I pay 24/- per annum to help support, and also with those religious gurus who glibly monopolize the air.

Our friend Vernon, with characteristic impudence, affably ascertains that I and my kith are well catered for during the week and part of Sunday. Let anyone with an un-biased mind sufficiently broad to judge present programmes of 2FC and 2BL over the past few weeks, especially 2FC’s last week (19th to 26th instant). One only needs half an eye to see the predominance of high-brow stuff. My interest positively will not survive on this classical fare, which is amably suited for the Conservatorium or the Town Hall, but considering the multitude, a little on the air goes a long way.

You certainly cannot please everyone, but what check is it to assume that the major-ity of "radioites" are disciples of the Conservatorium; also, how superfluous for 2FC to announce Wednesday as a classical night. I suggest the following mixture would tone things up and decrease the "pillars."—Rev. F. H. Rayward, B. Giff, C. Lawrence, W. Haynes Co., Scott, A. Evenden, C. Con-grave, W. Varma Co., an educational session (night), one each week; lectures, and indifferent to supply a dozen stations. Sprinkle the aforesaid sparingly with clas-sical, and let an increase in the number of licences.

In conclusion, may I add that if it were not for the fact that I consider those people who hurl bouquets at the broadcasting sta-tions and beam on the programmes with empty models of simplicity and content-ment I would feel confident that I should be able to sell them the G.P.O. clock.—Yours, etc.,

Naremburn.

1929.

Brisbane Calls Again

Dear Sir,—I would like to endorse the remarks of "something to cry over" (24/5/29) re 4QG. I have been listening in ever since there was any broadcasting,—starting with a crystal and increasing same until at present I am working three valves with a trap. We in Brisbane have been so fortunate that our station is absolutely up to putty. As a matter of fact the only thing we listen to is "bedtime stories"—and since last session we get. Immediately this is finished we get the south, preferring 3PJ to all the others. No offence meant to the other big southern stations.

Yours, etc.,

Brisbane.

DISORIENTED.

Readers are urged to express their opinions on matters pertaining to broadcasting. If you have some grievance, if you have some constructive criticism to offer, here is your chance for expression strikingly timely. The editor assumes no responsibility for statements made by readers and published on this page, so opinions of correspondents do not represent our editorial policies or policies. Anonymous letters are not considered.
IF - you have not built
"THE RENOWN THREE"
(The 3 Valve Set with the 5 Valve Performance)
THEN - you have missed building
THE BEST 3 VALVE SET TO DATE

ONE OF MANY
REPORTS RECEIVED
ABOUT THE "RENOVN.
J.H., Toowoomba, Qld.
"I am more than satisfied with the "Renown." It is so easy to tune, and so selec-
tive, that I got all the principal stations the night I finished it. This is the first set I
have ever built."

EASY PICTURE DIAGRAM
SUPPLIED FREE WITH PARTS

HEGRA LOUD-
SPEAKERS
A most popular Cone.
Regular Price, 38/6.
OUR PRICE  27/6
Limited Quantity.

ANDREWS' S.L.E.
CONDENSERS.
A Really Good Instrument,
at a
Really Low Price.
Size, 00035
Only.

DIORA VERNIER DIALS.
Another Wonderful Line.
Small . . . Now
Diam., 22in.
Large . . . Now
Diam., 4jin.

THE NEW AMPLO
B ELIMINATOR.
(Ready for Operation).
Greatly Improved,
with 4 B plus Tappings.
£6/13/5

COMPLETE
KIT OF
PARTS.

IT'S A LONG DISTANCE SET
KNIFE-EDGE SELECTIVITY

HEGRA LOUD-
SPEAKERS
A most popular Cone.
Regular Price, 38/6.
OUR PRICE  27/6
Limited Quantity.

ANDREWS' S.L.E.
CONDENSERS.
A Really Good Instrument,
at a
Really Low Price.
Size, 00035
Only.

DIORA VERNIER DIALS.
Another Wonderful Line.
Small . . . Now
Diam., 22in.
Large . . . Now
Diam., 4jin.

THE NEW AMPLO
B ELIMINATOR.
(Ready for Operation).
Greatly Improved,
with 4 B plus Tappings.
£5/15/0

"YOURS FOR LOWER PRICES AND SERVICE THAT SATISFIES."

THE ECONOMIC RADIO STORES
ADDRESS MAIL ORDERS, 492 George St., Sydney.
COUNTRY CLIENTS—Our Mail Order service reaches every corner of the Commonwealth. Send your orders to us conditionally that your
money is refunded if you are not satisfied with goods. Returns must be made within ten days of receipt. We pay carriage on all orders of 10/-
and over, except on batteries, Cabinets, and Loud Speakers. Articles specially procured cannot be exchanged. Terms: Cash, or Cash on Delivery.
No Discounts.

SYDNEY
25 New Royal Arcade, near
Palace Theatre.
'Phone, M6138.

NEWCASTLE
13 Union Street, off
Hunter Street West.
'Phone, New-1622.

PARRAMATTA
Corner Church
and
Macquarie Streets.
'Phone, UW 9601.

SYDNEY
126A Pitt Street, near
King Street.
'Phone, M6138.
The Martin Experimental Power Amplifier

This article is not of much use to the home builder from the financial outlay point of view, as the subject under discussion is somewhat costly, but there are many who are interested in power amplification, mostly in the advanced experimenter class, who will no doubt welcome constructional data for a heavy duty amplifier, suited to radio or other requirements.

There is little doubt that a power amplifier of good output characteristics is one of the most useful pieces of apparatus the experimenter can own, and the one to be described here is sufficiently powerful to fill a medium-sized dance hall with music, and yet is not too powerful for home use, when the set is used with its tone down. In conjunction with an inexpensive "pick-up" arm, it will convert an ancient gramophone into a modern machine competing favorably with some costing around £100.

REALISTIC REPRODUCTION.

There is now little doubt in the minds of the radio buying public that realistic reproduction, as good as or better than that obtained with well-known electrical gramophone combinations, can be obtained from a suitably designed power amplifier and a dynamic loud-speaker. In connection with audio amplification of radio signals, there are many causes of distortion before the sounds at the microphone reach the human ear. It is possible that a certain amount of the distortion takes place at the transmitter itself, but it is certain that most of it occurs at the receiver.

FOUR FACTORS.

In modern practice we have, unfortunately, four essential factors contributing to this distortion. In the first case, it has been necessary to make for extreme selectivity in the modern broadcast receiver, and this has necessitated the use of a stage of Screen Grid R.F., Detector, and Two Transformer-coupled Audio Stages, to provide full volume for two or three Magnavox A.C. Dynamic Speakers on such stations as KGO, KDKA, GSSW, and G5SW.

KGO AND G5SW.

There are not the slightest trace of distortion on KGO on its 21.38 metre wave on Wednesday afternoons as this station is particularly strong as a rule, without any high speed fading, and it is possible to understand every word from the London announcer through G5SW as late as 10 a.m. Sydney time.

The Martin Experimental Power Amplifier is a quite a young "power house," but, judging from the number of telephone calls I have had lately, certain enthusiasts have been contemplating the construction of similar power amplifiers for electrical gramophone reproduction for medium-sized dance halls.

A.C. SUPPLY.

As the whole amplifier derives its filament and plate voltages from an alternating current source, suitable transformers for the various supplies are necessary, and needless to say the constructor, after looking at the photographs, in fact at the transformers supplying all these items. It is a long and tedious job at the best of times, and at the reasonable price asked for them by experienced manufacturers, it is far preferable to purchase them ready for the job.

TRANSFORMERS.

The transformers supplying all power to this Martin amplifier were made by Colville-Moore Wireless Supplies, Ltd., at a very reasonable figure. We will start with the filament voltage plate supply. A power transformer with a 240 volt 60 cycle input, and a centre-tapped secondary of 550 volts per side feeds the plates of two Radiotron UX281 half-wave rectifiers, thus providing full-wave rectification at about 500 volts. This particular transformer has a very good voltage regulation and was used by the writer during most of the last year to supply power for a 25-metre transmitter, using two UX281's in shunt.

FILAMENTS.

The next power transformer on the list is one with a 240 volt 60 cycle input and two
separate 8-volt outputs. One of these 8-volt supplies is for the filaments of the two UX210 rectifiers, and the other is for the filaments of two UX310 power amplifying valves in push-pull at the output of the amplifier. In one side of each of these eight volt supplies is a 20 ohm heavy wire wound variable rheostat. The ones used in the original are particularly heavy, but a substitute in the form of an Iryan porcelain former rheostat may be used equally well.

**BEST METHOD.**

Really the best method of voltage control of any power transformer is by the insertion, in series with the mains to the primary, of a suitable variable rheostat, of which there are many kinds on the market. Although the writer finds that the slight difference in resistance on one side when the output instead of the input is controlled is insufficient to make any noticeable difference by electrically unbalancing the circuit, there are cases where it becomes very marked, but these cases are mostly in connection with self-excited oscillators in transmitting apparatus.

**FINAL TRANSFORMER**

The final power transformer gives the filament supplies to two UX211 Independent Hot Cathode valves, in an intermediate push-pull position in the amplifier. There are two 2.5 volt centre-tapped windings from this transformer, one for each valve, and it must be mentioned here that there would be no disadvantage in using one centre-tapped winding for the two. Adjacent to these two I.H.C. valves, there is provided a UX314 voltage regulator valve to ensure the I.H.C. valves against any possible overload in conjunction with the tapped resistances. Instead of using a special Intermediate push-pull intercative transformer between the I.H.C. valves and the two UX210's at the output, two Philips transformers are used with the primaries and secondaries in series with connections at the mid-points for plate supply and grid biasing. The input transformer to the I.H.C. valves is a Ferranti AFSC and the final output transformer from the 210's is a Ferranti OPSC. A 30 Henry B eliminator choke is placed in series with the high voltage D.C. supply to the UX210's, and is by-passed by four 2 mfd. fixed condensers in shunt, giving a total of 8 mfd.

**PLATE SUPPLY.**

It will be seen from the theoretical diagram that the plate supply for the UX210's is taken from the positive side of the choke, thus leaving only a small current to filter for the UX211's, and the grid bias. The B supply resistances used by Mr. Martin in this amplifier bear a trade mark "Hroblik," and will pass 100 milliamps at 425 volts. The grid resistors are variable, as indicated in the diagram, and are 2000 ohm Ennecostads. The milliammeter in the B negative is a Weston instrument, reading 0 to 100 milliamps, and is invaluable as an overload indicator.

**SIGNAL INPUT.**

The signal input to the amplifier is taken to the primary of the AFSC transformer, and there are two outputs from the UX211's. One is taken from the secondary of the OPSC output transformer and the other direct from the primary, or the plates of the valves. This is done because many types of reproducers are used with the amplifier, and the transformer output is not always required. It may be necessary to use a filter-choke output with certain apparatus. To facilitate using either, these two outputs are taken by means of single-circuit jacks.

**LAY-OUT.**

It is not much use giving details of the complete lay-out as the originator simply made the whole amplifier on a baseboard as compactly as possible, and there is no reason why the lay-out should not be compressed. An aluminium shield fits over the whole arrangement, and it is surprising how this cuts out the residual A.C. hum, which in any case is barely noticeable.

No fears need be entertained for an all-electric power amplifier, which may be used with a short-wave receiver, on such stations as KGO and G5SW, without any trace of A.C. hum. To make the shielding as complete as possible the baseboard carrying the whole layout, fits into an aluminium tray, and when the cover is placed on top, the only visible controls are the filament rheostats at one end, the milliammeter, the input and the output jacks.

**BASEBOARD.**

The baseboard measures 23 by 12 by 1/16 inches. The edges are cut at the corners and turned up for half an inch, so that the baseboard just fits into the two Dileto end pieces for the milliammeter, jack, and rheostats measure 12 by 7 by 3-16ths, and...
have slots cut at the top for hand carrying. In order to strengthen the arrangement, a length of 3/i, dowel wood runs along the top between the two Dilecto end pieces, being secured at each end by wood screws. The 550 volt plate power transformer is mounted in a vertical position by bending a piece of 14-gauge aluminium at right angles with one side fastened to the baseboard by wood screws, and the other side drilled to take four set-screws tapped into the four legs of the transformer.

**SHIELDING.**
Partial shielding from the 2B1 and 210 filament transformer is effected in this way as may be seen from the relative positions of the two transformers. The 30 Henry filter choke is also mounted similarly on an aluminium angle sheet. Totally enclosing the double transformer for the TJY227 H.C. transformers is a small aluminium box, into which this transformer fits; this does not take up much room, owing to the small size of this transformer. The rest of the lay-out may be seen from the illustrations and checked up with the wiring diagram.

**LOWER RATING VALVES.**
This amplifier has also been used with valves of a considerably lower rating than 40's in the final push-pull, by including in series sufficient resistances to drop the voltage from the 281 rectifiers, and excellent results have been obtained. Tests were carried out with a pair of Six-sixty 6-volt super-power valves, Osram P625A's, and Mullard PM256's, and in each case the lowest notes of which the loudspeaker was capable of reproducing came through without any overloading of the valves.

**NO FILTER.**
It should be remembered that as a push-pull output transformer is used, there is no need to use any filter following the amplifier, as no direct current flows through the loudspeaker windings, which are protected by the output transformer. The push-pull output transformer should be chosen with a 1 to 1 ratio, if the amplifier is designed to use with an ordinary high resistance loud-speaker of the average cone-type, but with low resistance moving coil types, the output transformer should have a 25 to 1 ratio. These brief details together with the drawings will supply sufficient information for those who have recently inquired about super power push-pull audio amplification.

---

**Mozart Trio**

PROFESSOR RACHMANOFF, one of Pavlova's musical conductors—himself a famous pianist—has with David Glueerman ('celloist) and Peter Bornstein (violinist), all associated with Pavlova's company, and famous the world over as "The Mozart Trio," signed a contract for a broadcasting season with 3LO, Melbourne, commencing on Sunday night, June 16, when they will feature "Arensky's Trio in D Minor."

**Meistersingers in "Romeo and Juliet"**

THE third part of the musical adaptation of Shakespeare's "Romeo and Juliet" will be given by "The Meistersingers" under the direction of J. Button Crow, and will be broadcast from 3AR on June 20. As on the previous occasion Mine. Elsie Davis will portray the role of Juliet to the Romeo of John Sullivan; other parts being taken by Stella Greer, Sylbil Shaw, and Charles Evans. A feature of these performances is the Meistersingers' Orchestra, a combination of six first-class solo instrumentalists, whose excellent work goes a long way to make their programmes such a great success.
How to Make a Model Plane

The propeller shaft is shown in drawing E. Fig. IV. Bend it from a piece of 0.15 music wire about 11-inch long. Stick the straight end through the hole in the hub of the propeller, bend it into a square U, push the U back into the wood, and secure it into place. Slip the propeller shaft through the front bearing, and you're ready to hook on your rubber motor.

Your landing gear is constructed of 1-32-inch square bamboo, as shown in the drawing. You only requirement is that the gear must hold the front end of the plane at least 21 inches off the ground, so that the propeller will turn freely without striking the ground. For the axle, bend a piece of 0.15 music wire L-shaped, and secure it to the end of the landing gear strut, as shown in the drawing. The wheels may be made from flat cardboard, about the size of a penny piece. Punch a hole in the centre of each, and slip them on the axle. A drop of seccotine on the end of the axle—but not touching the cardboard—will harden and act as a nut, holding the wheel in place.

The motor is a band of .045 rubber, long enough to reach in a double strand from the front to the rear box with an inch of slack. Now, you're ready for your first flight. Attach your wing to the fuselage. To test the balance of your plane, let it glide from your hand to the floor. If it dives too steeply, set the wing forward. If it has a tendency to point downward and stall, set the wing back. When it glides gradually to the floor, it is properly set.

You want to reduce the circle in which the plane flies, bend the fin—do this by breathing on the fin. When you get the right end of the rudder up, and bending gently with your fingers—in the opposite direction to that in which the propeller turns. The amount of the bend will depend on the size of the room.

Now wind up the propeller with your fingers—it will need at least two hundred winds—and release it from your hand. If you've built it to the right dimensions, and have done a reasonably workmanlike job, the little ship will climb rapidly and circle above your head for at least half a minute. But don't be satisfied. Build another—and another—until you have one that performs like a miniature Canberra, or perhaps, a Southern Cross.

(Take your hand from the propeller, you'll be pleased to hear of any person who nearly manœuvred that one, who could organise a division of the P.R.C.)

The secretary reports the formation of a group at Maroona this week.

Botany, City 2, Punchbowl, and Auburn Groups are still open for membership. All information re the club can be gained by writing to Mr. Neale, Annerley Road, Annerley, South Brisbane, or to the Secretary, 31,-Montague Road, Annerley, South Brisbane.

In a recent article of this series, I gave a chart of A, B, and C volts for D.T.E. tube. But as a service man is likely to service Philips valves very often, I give below a table for Philips:

<table>
<thead>
<tr>
<th>Type</th>
<th>A volts</th>
<th>100</th>
<th>120</th>
<th>150</th>
</tr>
</thead>
<tbody>
<tr>
<td>A880</td>
<td>4</td>
<td>4.5</td>
<td>6</td>
<td>7.5</td>
</tr>
<tr>
<td>A895</td>
<td>4</td>
<td>4.5</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>A911</td>
<td>4</td>
<td>4.5</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>B811</td>
<td>4</td>
<td>4.5</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>B815</td>
<td>4</td>
<td>4.5</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>B816</td>
<td>4</td>
<td>4.5</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>B817</td>
<td>4</td>
<td>4.5</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>B818</td>
<td>4</td>
<td>4.5</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>C503</td>
<td>4</td>
<td>4.5</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

PROVING RADIO CLUB NEWS

Executive Report

The P.R.C. country organiser (Mr. Simmonds) made good progress, in his report. Two groups have already been formed in Queensland, under the leadership of H. C. Neale, Annerley Road, Annerley, South Brisbane, and the other in North Queensland. The executive decided in this matter to request Mr. Neale to take the responsibility of organising a Proving Radio Club in the northern State, on similar lines as the N.S.W.P.R.C. Therefore, a visit to Queensland radio fans to get point, and send Mr. Neale a band. Don't forget the address. Annerley Road, Annerley, South Brisbane.

How to Service Radio Sets

The seventh article of the series on Servicing Radio by an experienced business man in radio.

Medium, which, in turn, dissolves some parts of the insulation and allows the wire to corrode at these points. A heavy surge of current, as from static or heavy modulation, will find these or these weak spots, and fuse the wire; causing a open primary.

Whatever the cause, open primary windings are among the first things you want to test on a dead set with good batteries, or on one which stations can be heard but faintly.

It is not necessary to replace the same make transformer in any set, as long as you have one that will fit of another make, with proper ratio. Never use a high ratio transformer, such as 2 to 1, except in the first stage. For second stage use 3 or 3½ to 1, and if three stages of transformer coupling is used, the last stage should not exceed 2 to 1.

Of course, you must remember that the results from a transformer installation will be exactly as the work of the transformer. If you must replace the same shape transformer, and cannot get one without long delays or other reasons, and if it is a container type, take the transformer winding and core out. Use the same size, but first-class, transformer, bringing the leads out to the binding posts, and filling the shell with sealing wax from the top of old batteries or some other compound. This article is primarily about making money by service, but there are so many things necessary to know about transformers that I feel we must start with this subject, as we make this a lengthy article.

There are various methods for coupling output, input, audio circuits, such as trans conduction, impedance, and condenser, push-pull, and tricks which are called something else, but are not.

The difference between transformer-coupling and the other kinds of coupling is that the transformers not only separate the output and input circuits, but they amplify the voltage. That is a decided advantage in the point of saturation distortion, and this is more evident in transformers than in other mediums.

At one time it was unknown how to design the proper proportion of fuse and wiring to amplify a broader band of audio frequencies without saturation on some of the frequencies, and have hundreds of thousands of these transformers in the field which can be replaced with more efficient modern transformers and devices.

These new transformers are designed to handle both the input and output voltage undulated by frequency, having the same amplitude to the output directly as the rating such as 2 to 1 or twice as high, 3 to 1 three times as high, etc.

Old transformers could not only did not amplify, but lost the lower frequencies, and they were prone to cause a variation of amplitude in the output, hence a distortion result.

The various groups of the club held a questionnaire on the work they have done up to date. This questionnaire was drafted by the executive. The result of this showed that the members were quite conversant with the subjects that had been dealt with under the syllabus laid down by the executive.

The executive reports that Mr. Long, M.R.H., is going to lead a party of members over the transmitting station of A.W.A. at modern transformers and devices that have been published when arrangements have been finalised.

Skipper Francis

A UNIQUE figure in the musical world is that of Mr. Francis C. World-renowned as the author and composer of the popular song, "Australia Will Be There." The singer, a former student of the I.I.O. on Jan. 18, when his fine resonant baritone voice will be heard in some robust numbers.
RADIOKES PRODUCTS
FOR LAST WEEK'S
MARCO A.C. FOUR

This excellent little receiver has been made possible by the ability to obtain suitable component parts for use in the assembly of this popular job in its all electric form.

RADIOKES well-known Marco Kit has been chosen as the most suitable for use with this A.C. Set, which promises to become very popular. Inferior parts cannot be successfully employed in the fabrication of a successful electric powered receiver.

The Technical Editor has chosen Radiokes Coils, for he knows they will perform up to expectations and will continue to give highest measure of service under the exacting conditions demanded by electric operation.

Be warned, and do not be tempted to use any of the "cheap" coils offered at bargain prices. These are usually constructed on unreliable, highly inflammable bases, which at once suggests constant danger. Genuine Radiokes Marco Coil Kits are constructed on precision cut formers of the highest grade Bakelite obtainable, are efficient, highly-finished, and only cost £1/10/- per kit.

RADIOKES COLLAPSIBLE SCREENING BOXES have been chosen for use with this modern, efficient little set. These shielding compartments are simple of assembly, strong, super-efficient, and beautiful. Their incorporation in your assembly imparts a professional finish to your job which makes it comparable with most factory built receivers.

These boxes are so designed as to permit you completing your wiring before the shields are put in place, a point which will appeal to most set constructors.

Beautifully finished in black crystalline, measuring 9in. x 6in. x 5in. These boxes sell for the moderate figure of 15/- each.

The Famous RADIOKES RADIO FREQUENCY Chokes are employed in this Marco Electric. They were chosen for obvious reasons. The design of this choke is so outstanding and advanced that any manufacturer has not yet been able to produce a choke to supplant Radiokes. These excellent little instruments are equally adapted to short and long waves, and also to Battery or Power operation. Because of their small size, robust and fireproof construction, reliability and low price, these chokes are employed by many large receiver manufacturers, as well as a large army of custom builders and home-constructors. Price 8/6 each.

Radiokes products are available at high class dealers or direct from

METROPOLITAN ELECTRIC CO., LTD.,
RADIOKES HOUSE, 126-130 SUSSEX STREET, CITY
Now! The Distinctive
RCA - MODEL 33
GREATEST VALUE IN RADIO TODAY

6 Valves! All Electric!

A Console Model, Mind You

YOU’VE seen all the receivers the market has to offer. Now prepare for something different... R.C.A. Model 33... a console... slender-legged, yet sturdy... richly grained in the manner of rare African Mahogany... bordered by Champleve Enamel in the age-old triangular designs of the Aztec Indian. It’s so distinguished—its modern simplicity matches any scheme of furnishing—and so convenient. It stands anywhere—by your favourite chair—its simple, one-dial control just the right height for armchair operation.

And Tone! And Selectivity! And Volume! Seven big Radiotron Valves and an R.C.A. developed circuit. Simply plug into a power point. Turn on the current. Watch the translucent dial glow with light. Bring in the stations—interstate or local—with all the exquisite tone sweetness for which R.C.A. Radio is famous.

Come and hear the Model 33 immediately. It’s new... really years ahead in design... another great pioneering development of the Radio Corporation of America and its associates, General Electric Company and others... a worthy, though the yet lowest-priced addition to the notable range of R.C.A. Receivers. Price, £45. R.C.A. Model 100B Loudspeaker, £7/10/-.

POST FOR DETAILS
Australian General Electric Co., Ltd.
Please send particulars of the new R.C.A. Model 33 Receiver.

Name ........................................
Address ......................................

R.C.A. Model 33... £45
R.C.A. Model 100B Loudspeaker... £7/10/-

Any of the best City, Suburban, and country radio dealers will be glad to demonstrate.

AUSTRALIAN GENERAL ELECTRIC
Australian General Electric Company, Ltd.
93-95 Clarence Street, SYDNEY
53 King St., Civic Centre 621 Dean St Keen St., Newcastle Canberra Albury Lismore
When we treated rectification, it was with a set purpose. We were taught (and we proved by experiment) that rectification allowed only the positive half cycle of an oscillating current to be used. From this we gathered (and we were told) that an oscillating current actually has two distinct polarities, i.e., negative and positive, the negative half cycle being that below the zero line, and the positive half cycle above the line. It therefore follows that half the current is in one direction and the other half is in the opposite direction. Thus half the current is positive and half is negative.

The method of doing this, and its reason, should be obvious if the student thoroughly reads the article on valves. Briefly, the valve eliminates the negative half cycle in the following manner:

When a current of electricity is passed through a conductor, particles of negative electricity, called electrons, are emitted from the atoms composing the conductor. Some of these electrons, coming into contact with each other, would be thrown into space (as like signs repel), and unless an opposite polarity were present to attract these electrons, they would be attracted back to their positive nuclei. Accordingly, a plate is placed inside the valve, and is kept at positive potential by connecting it to the positive terminal of a battery. Thus, a constant migration of electrons is kept up between the plate and the atoms composing the conductor.

If we were to use a negative potential on the plate by connecting it to the negative terminal of a battery, the negative polarity of the plate would repel the negative polarity of the electrons, and no current would flow. Thus if A.C. (already treated) were to be used on the plate, an intermittent current would result, since it is now Direct Current, i.e., a current which is constant, and does not alter its direction of flow as does A.C.—Alternating Current.

The method of smoothing out intermittent D.C. is called "filtering," and the component used to do this work is called a "filter.

The result of smoothing out intermittent D.C. is to remove the gaps in the current flow by smoothing out the positive half cycles into a continuous current. However, there is still a tendency for the current to dip towards the zero line at the commencement and end of each half cycle, and we call this "Pulsating D.C.

The aid of additional apparatus (which does not concern us yet), the current can be made almost D.C.—without pulsations. This is termed "Pure D.C."

So far, we have dealt only with one-half of the wave. This is termed "Half-wave Rectification." By using two rectifiers (Full-wave Rectification), we can make use of both sides of the cycle, i.e., the negative and positive half cycles, and almost completely rectify the A.C., making it almost complete D.C. However, as the positive half wave is sinking towards the zero line, the negative half wave is rising, and, as a result, the wave will still pulsate slightly, so it is still necessary to use a filter.

"Why is it necessary to filter the wave?" some may ask. The reason is that if we are using the rectified voltage for the filament of our valve, the filament will alternately emit more, then less, electrons as the voltage fluctuates. This means that the plate current will vary, since if less electrons are available, the plate cannot attract an even number. If we are using rectified A.C. on the plate of the valve, the plate current will be less as the wave sinks towards the zero line. As a result, the signals we hear in our radio receiver fluctuate.

So much for that. The next important consideration is—"How is the filter constructed, and how does it operate?"

The actual construction of the filter depends upon the use to which it is to be put, and these are many and varied. There are, I am sure, few of you who have not heard of a "B" battery eliminator. For the sake of those who have not, I must explain that the "B" battery eliminator is a device designed to step down (by means of a transformer) the A.C. to the 6 plate volts necessary to operate the resultant voltage (by means of a rectifier), thus giving pulsating, or "ripply" D.C., and, to smooth this pulsating, a filter. The filter used in eliminators (as the name implies, "B" eliminator is a component used in place of the "B" battery, since it enables one to use current from the A.C. mains) is practically the same in principle as those used throughout radio and electrical work.

The theoretical principle is this: A condenser is placed across the output of a rectifier current. As the current rises, the condenser will become charged. (See "Proving Radio" on condensers—last three issues.) Immediately, however, the current begins to sink, the condenser discharges into the circuit, and thus a constant current is kept up. As the current rises, the condenser absorbs this peak of current and, as a result, the current sinks towards zero, the condenser, which has absorbed some current from the peak of the positive half cycle discharges, as the current sinks, and thus the wave is almost continuous.

This week's chat should prove extremely interesting to those who are partial to electrical work. We will talk about radio receivers and transmitters.

We are progressing slowly, but surely. Evidence of this is shown in examination papers, which keep the writer very busy.
THE SPEAKER

WITH THE GOLDEN VOICE

Mighty in volume, mellow in tone, perfect in the reproduction of speech and music, the Mullard "C" model speaker brings reality to your radio, re-creates the artiste in your home.

As the genius of a great musician demands a faultless instrument so does a fine radio set demand a fine speaker. In fairness to your receiver you must hear a Mullard speaker; to hear it is to buy it—to buy it is to take a new interest in radio.

Mullard
MASTER-RADIO

THE MULLARD WIRELESS SERVICE CO. LTD,
NIGHTINGALE LANE, BALHAM, LONDON, ENGLAND.
Local Programmes, Friday June 14

**2FC**

**EVENING SESSION.**

**9.0: Music.** 10.10: Happiness talk by A. E. Bennett. 10.20: Miss Helen J. Benging. 11.45: Close down. 2.00: Music. 3.00: Women’s Radio Service, by Mrs. Dorothy Jordana. 3.30: Music. 3.40: Miss Florence Gordon, contralto. 4.30: Feature stories. 5.80: "How to Write a Letter." 5.55: Miss Elsie Peerless, soprano. 6.45: Address. 9.0: Weather report. 9.2: Instrumental music. 9.15: Miss Florence Gordon, contralto. 9.23: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.28: Women’s Radio Service, by Mrs. Dorothy Jordana. 9.30: Close down. 9.55: Miss Elsie Peerless, soprano. 10.30: Close down.

**2BL**

**MORNING SESSION.**


**MIDDAY SESSION.**


**INDEX**

**To Local Programmes**

**FRIDAY, JUNE 14**

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.00</td>
<td>&quot;Big Ben.&quot; By courtesy of J. C. W. Proctor.</td>
</tr>
<tr>
<td>8.15</td>
<td>Announcement.</td>
</tr>
<tr>
<td>8.30</td>
<td>Studio Orchestra.</td>
</tr>
<tr>
<td>9.00</td>
<td>&quot;Big Ben.&quot;</td>
</tr>
<tr>
<td>9.10</td>
<td>Announcement.</td>
</tr>
<tr>
<td>9.15</td>
<td>&quot;Big Ben.&quot;</td>
</tr>
<tr>
<td>9.20</td>
<td>&quot;Sydney Morning Herald.&quot;</td>
</tr>
<tr>
<td>9.25</td>
<td>Zena and James Kendall, sketches.</td>
</tr>
<tr>
<td>9.30</td>
<td>Bryson Taylor, tenor—Three songs of the Hebrides—&quot;Am Fain&quot; (Hamblin), (b) &quot;Sailor&quot; (Gilbert-Bronn).</td>
</tr>
<tr>
<td>9.35</td>
<td>&quot;Big Ben.&quot; By courtesy of J. C. W. Proctor.</td>
</tr>
<tr>
<td>9.40</td>
<td>&quot;Sydney Morning Herald.&quot;</td>
</tr>
<tr>
<td>9.45</td>
<td>&quot;Big Ben.&quot;</td>
</tr>
<tr>
<td>9.50</td>
<td>Announcement.</td>
</tr>
<tr>
<td>9.55</td>
<td>&quot;Big Ben.&quot;</td>
</tr>
<tr>
<td>10.00</td>
<td>&quot;Big Ben.&quot;</td>
</tr>
<tr>
<td>10.05</td>
<td>Announcement.</td>
</tr>
<tr>
<td>10.10</td>
<td>&quot;Big Ben.&quot;</td>
</tr>
<tr>
<td>10.15</td>
<td>Announcement.</td>
</tr>
<tr>
<td>10.20</td>
<td>&quot;Big Ben.&quot;</td>
</tr>
<tr>
<td>10.25</td>
<td>Announcement.</td>
</tr>
<tr>
<td>10.30</td>
<td>&quot;Big Ben.&quot;</td>
</tr>
</tbody>
</table>

**2GB**

**EVENING SESSION.**

**9.0: Music.** 10.10: Happiness talk by A. E. Bennett. 10.20: Miss Helen J. Benging. 11.45: Close down. 2.00: Music. 3.00: Women’s Radio Service, by Mrs. Dorothy Jordana. 3.30: Music. 3.40: Miss Florence Gordon, contralto. 4.30: Feature stories. 5.80: "How to Write a Letter." 5.55: Miss Elsie Peerless, soprano. 6.45: Address. 9.0: Weather report. 9.2: Instrumental music. 9.15: Miss Florence Gordon, contralto. 9.23: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.28: Women’s Radio Service, by Mrs. Dorothy Jordana. 9.30: Close down. 9.55: Miss Elsie Peerless, soprano. 10.30: Close down.

**2UW**

**MIDDAY SESSION.**

**12.30: Request numbers.** 1.0: O.P.O. chimes. 1.15: Talk on Homesteading by P. H. Bartlett. 1.45: Music and request numbers. 2.30: Close down. 4.30: Musical programme.

**EVENING SESSION.**


**Page Twenty-Five**

(Wireless Weekly)
WIRELESS WEEKLY

Page Twenty-Seven

NORTH EAST SALES and SERVICE

This Famous Electrical Equipment is Standard on the following Cars

DE SOTO
DODGE
GRAHAM TRUCK
GRAHAM PAIGE
PACKARD
REO
WHITE TRUCK
YELLOW CAB

NORTHEAST SPEEDOMETERS
Standard Equipment on

CHRYSLER
DE SOTO
DODGE
GRAHAM TRUCK
GRAHAM PAIGE
OVERLAND WHIPPET
PACKARD
PLYMOUTH
REO
WILLYS KNIGHT

NORSEMAN HORNS

30/- 30/-

N.S.W. Distributors and Service Station:

GIBSON BATTLE & Co. Ltd.

HUNT AND COMMONWEALTH STREETS

(Off Wentworth Avenue) SYDNEY 'Phone M2771 (3 lines)

Friday, 14th June, 1929.

9.50: Nash-Smith's Palace Royal Band.
Sometimes I'm Happy (Yvonne).
"Dem Golden Slipper."
"Flower of Love." (Dryer).
10.0: Eyd Morrell, baritone.
Where My Carolina Has Nestled" (Lorby).
"Sympho." (Speake).
10.4: Nash-Smith's Palace Royal Band.
Beautiful" (Shay).
"My Blackbird is Blooming Now" (Friend).
"Is She My Girl Friend?" (Yvonne).
10.15: "The Advertiser" general news service; British official weather and general information; announcements.

6WF
10.0: Tune in. Gramophone and phonograph records.
11.0: Close down. 11.20: Tune in. 11.30: Market news. 11.33: Time signal. 11.3: Weather bulletin supplied by the Meteorological Bureau of West Australia.
12.0: Items by the Radio Trio from the Studio.
2.0: Close down.
3.0: Tune in. 3.1: Afternoon tea music relaxed from the Princes Cafe de Luxe. Items by Miss Chapman and Marshall.
6.0: Tune in. 6.44: Bedtime stories by Bebe Duff. "Light music by the Radio Trio, comprising Miss Audrey Dean (piano), Miss E. Waterman (cello), Mr. H. T. Newton (violin)."
3.3: "One, two, three, four Medley." "Can't You Hear Me Calling" (Finden).
6.45: "We Wish You a Merry Christmas." "Sylvia" (Mendelssohn).
7.41: Jack Courtney, tenor - "Roses of Picardy" (Wood), "My Old Shako" (Beethoven), "I Fell Head Over Heels in Love" (Stuart), "Spring Song." "Gardening" talk by Mr. James Conarty.
8.3: Tune in. 8.4: "Gardening" talk by Mr. James Conarty.
9.30: Sporting service, including selections for Tcloem Bend and Williamstown races to-morrow.
10.10: Boake-Smith's Palace Royal Band.
11.30: Maltese Mail Co., Ltd.; railway suction produce sales, held at Railway. 1.90: "Music for Ladies." "Serenade." "In a Monastery Garden." "Lonicostri."
2.0: Close down.

7ZL
11.0: Musical selections.
11.20: Midland weather forecast.
12.0: Market news. 12.0: Weather bulletin supplied by the Meteorological Bureau of West Australia.
12.55: News service; British official weather and general information; announcements.
1.3: Items by the Radio Trio from the Studio.
2.0: Close down.
3.0: Items by the Radio Trio from the Studio.
4.30: Close down.
6.45: "Best time for Bedtime stories by Bebe Duff. "Light music by the Radio Trio, comprising Miss Audrey Dean (piano), Miss E. Waterman (cello), Mr. H. T. Newton (violin)."
3.3: "One, two, three, four Medley." "Can't You Hear Me Calling" (Finden).
6.45: "We Wish You a Merry Christmas." "Sylvia" (Mendelssohn).
7.41: Jack Courtney, tenor - "Roses of Picardy" (Wood), "My Old Shako" (Beethoven), "I Fell Head Over Heels in Love" (Stuart), "Spring Song." "Gardening" talk by Mr. James Conarty.
8.3: Tune in. 8.4: "Gardening" talk by Mr. James Conarty.
9.30: Sporting service, including selections for Tcloem Bend and Williamstown races to-morrow.
10.10: Boake-Smith's Palace Royal Band.
11.30: Maltese Mail Co., Ltd.; railway suction produce sales, held at Railway. 1.90: "Music for Ladies." "Serenade." "In a Monastery Garden." "Lonicostri."
2.0: Close down.

NORTH EAST SPEEDOMETERS

Standard Equipment on

CHRYSLER
DE SOTO
DODGE
GRAHAM TRUCK
GRAHAM PAIGE
OVERLAND WHIPPET
PACKARD
PLYMOUTH
REO
WILLYS KNIGHT

NORSEMAN HORNS

30/- 30/-

N.S.W. Distributors and Service Station:

GIBSON BATTLE & Co. Ltd.

HUNT AND COMMONWEALTH STREETS

(Off Wentworth Avenue) SYDNEY 'Phone M2771 (3 lines)
MODERN
A.C. VALVES
ALL INDIRECT HEATED
ALL FIVE PROG BASES!

Previously we outlined the Screen Grid A.C. Tube with an ever-make-up—now it is the EB40 which is the tube that worked with a grid. A modulation of 100% is obtainable in a single device. The EB40 operates with good gain at voltages of 300—350 volts. It is suitable for all purposes and many others.

Once again we publish the characteristics of the 4-volt A.C. series, but this time we shall be using the EB40—a super detector with a slope of 31.

PHILIPS 4-VOLT A.C. VALVE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Type</th>
<th>Plate</th>
<th>slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>E424</td>
<td>100</td>
<td>3.5</td>
</tr>
<tr>
<td>E442</td>
<td>150</td>
<td>1.5</td>
</tr>
<tr>
<td>B443</td>
<td>100</td>
<td>1.5</td>
</tr>
<tr>
<td>B469</td>
<td>150</td>
<td>1.5</td>
</tr>
</tbody>
</table>

A.C. Tubes which are suitable for A.C. Operation.

PHILIPS
A.C. VALVES
Local Programmes, Saturday, June 15

2FC

EARLY MORNING SESSION.

Announcer: A. S. Cochrane.
7.0: "Big Ben" and announcements.
7.2: Official weather forecast; rainfall; river reports: temperatures, astronomical memoranda.
7.7: "Sydney Morning Herald" summary.
7.12: Shipping intelligence: mail services. Studio music.
7.2: Investment market; mining sharemarkets; metal quotations; wool sales; breadstuff markets; interstate markets; produce markets. 7.40: Studio music.
7.5: "Big Ben.

MORNING SESSION.

Announcer: Eric Bessemer.
10.0: "Big Ben" and announcements. 10.2: Piano forte reproduction. 10.10: "Sydney Morning Herald" news service. 10.2: Studio music.
10.30: Last-minute sporting information, by the 2FC Racing Commissioner.

MID-MORNING SESSION.

Announcer: Laurence Halbert and Ewart Chapple.
Note.-Race results from Victoria Park.
8.0: "Big Ben" and announcements.
8.2: Stock Exchange information.
8.3: Weather and "Big Ben" news service.
8.5: From Rosehill—description of the races in the running. During intervals between races musical items by the "Musical" trio, wireless service.
9.45: Sporting and racing resume.
10.0: "Big Ben. Close.

EARLY EVENING SESSION.

Announcer: A. S. Cochrane.
5.40: The chimes of 2FC. 5.45: The children's sessions, conducted by "Hello Max.
6.0: Letters and stories: music and entertainment.
6.10: Stock Exchange Information.
6.15: Weather and "Big Ben" news service.
6.15: From Rosehill—description of the races in the running.
7.0: The 2FC Dinner Quartet, conducted by Horace Keats. (a) "Minuet in B flat" (Beethoven). (b) "The Song of Hybris the Cretan" (Elliott). (c) "Mignonne" (Tschaikowsky).
8.45: From the Studio—"The Grass Widower" (Woodhouse). Race results.
9.0: Studio music.

EVENING SESSION.

Announcer: Laurence Halbert.
7.30: Popular music.
7.45: Programme announcements.
7.56: Foreword to the next item.
8.0: From the Conservatorium of Music—"The Prince Who was a Piper," a production arranged by Harold Watch.
8.45: From the Studio—"The Grass Widower" (Woodhouse). Race results.
9.0: "Big Ben. Close.

2BL

MORNING SESSION.

Announcer: A. C. C. Stevens.
8.3: Studio music. 8.15: News and information service from the "Daily Telegraph Pictorial.

MIDDAY SESSION.

Announcer: A. C. C. Stevens.
Note: Results from Rosehill and Victoria Park will be broadcast by arrangement with "Sun" Newspapers, Ltd. 11.0: G.P.O. chimes.
Women's Session, conducted by Mrs. Crasfeld. What's on at the pictures and theatres.
11.30: Advertising hints.
11.40: Talk on "Gardening" by Mr. Cooper, Park Superintendent, City Council. 12.0: G.P.O. chimes.
Special ocean forecast and weather report.
12.3: Piano forte reproduction.
12.30: "Sun" midday news service.
12.40: Instrumental and dance programme.
14.0: "Sun" news service.
14.50: Studio music.
2.0: G.P.O. chimes. Close down.

AFTERNOON SESSION.

Announcer: Eric Bessemer (Studio).
Basil Kirke (Sports Ground).
Announcer: A. S. Cochrane.
3.50: From the Sydney Sports Ground.
3.30: "Big Ben. Close.

EARLY EVENING SESSION.

Announcer: A. S. Cochrane.
4.45: Studio music.
5.0: G.P.O. chimes. Close.

EVENING SESSION.

Announcer: Basil Kirke.
5.40: Children's Session, conducted by Uncle George.
6.0: Studio music.
7.0: "Big Ben. Close.

2GB

3.0: Musical session.
5.30: Children's session, by Uncle George.
7.0: Request evening. 8.0: Instrumental and dance programme.
10.30: Close down.

2UW

6.30: Children's hour, conducted by Uncle Jack. 7.0: Request numbers.
10.30: Close down.

Now that winter is here and the rain and cold keep you indoors, rake out that old set and let us modernise it so that you may get the best out of the air. You will find our prices right and our work guaranteed. Let us quote you—any advice free.

Resco sets may be obtained from £16/- complete with twelve months' guarantee and free service. Terms can be arranged. Write Desk R for particulars.

THE RESCO RADIO SUPPLY CO.,
38a PITT STREET,
SYDNEY (near Quay) B1817
ANNOUNCING

that stocks are now available of Emmco's new lines, including the HOME AMPLIFYING UNIT, and ready for immediate distribution.

When used in conjunction with a Baldwin Phonograph pick-up and a Dynamic Speaker, the re-creation and purified tone reproduction of Phonograph records is a revelation. The unit gives the maximum volume without distortion.

PRICE COMPLETE ............................. £18/10/-.

Emmco are now making a complete range of A.C. component parts, including Chokes, A.C. Transformers, and all parts necessary for A.C. Sets; these enable you to build a modern A.C. Set or convert your old one.

Send at once for new illustrated catalogue.

ALL EMMCO PRODUCTS ARE FULLY GUARANTEED.

Emmco's
New Bakelite Rheostat

Emmco's new perfected Bakelite Rheostat. Compact in size, being only 1½ inches in diameter, and, owing to its unique construction, is moisture-proof and unaffected by climatic conditions. Remarkably smooth operation, single hole mounting.

Made in 6, 10, 20, and 30 ohms.
Price ............................... 4/6
Potentiometer, 400 ohms .......................... 5/6

Sole Factory Representatives:

SYDNEY— MELBOURNE—
Made by Electricity Meter Mfg. Co. Ltd. Mello Metal
Sole Factory Representatives: Vernier Dial

Manufacturers Products Pty. Ltd. Sugden Place.

Phone: BW1328. Off Little Collins St.
3LO

EARLY MORNING SESSION
7.15 to 8.30

MOORING SESSION
7.10: Resume of previous race results. 7.11: Resume of regular broadcasts, 'Australasian Railways Band'. 7.13: Special announcement. 7.14: Announcement of 5th. 7.15: Resume of regular broadcasts, 'Australasian Railways Band'.

SPORTS SESSION
7.15: Resume of previous race results. 7.16: Resume of regular broadcasts, 'Australasian Railways Band'. 7.17: Special announcement. 7.18: Announcement of 5th. 7.19: Resume of regular broadcasts, 'Australasian Railways Band'.

EARLY MORNING SESSION
7.15 to 8.30

MOORING SESSION
7.10: Resume of previous race results. 7.11: Resume of regular broadcasts, 'Australasian Railways Band'. 7.13: Special announcement. 7.14: Announcement of 5th. 7.15: Resume of regular broadcasts, 'Australasian Railways Band'.

SPORTS SESSION
7.15: Resume of previous race results. 7.16: Resume of regular broadcasts, 'Australasian Railways Band'. 7.17: Special announcement. 7.18: Announcement of 5th. 7.19: Resume of regular broadcasts, 'Australasian Railways Band'.

3AR

30K

NEWSPAPER NEWS SESSION
9.00 to 10.30

EARLY MORNING SESSION
11.0 to 12.0

MOORING SESSION
11.5: Resume of previous race results. 12.0: Resume of regular broadcasts, 'Australasian Railways Band'.

SPORTS SESSION
11.5: Resume of previous race results. 12.0: Resume of regular broadcasts, 'Australasian Railways Band'.

SCL

EARLY MORNING SESSION
5.0 to 6.30

MOORING SESSION
5.27: Resume of previous race results. 5.28: Resume of regular broadcasts, 'Australasian Railways Band'.

SPORTS SESSION
5.27: Resume of previous race results. 5.28: Resume of regular broadcasts, 'Australasian Railways Band'.

2AR

NEWSPAPER NEWS SESSION
9.00 to 10.30

EARLY MORNING SESSION
11.0 to 12.0

MOORING SESSION
11.5: Resume of previous race results. 12.0: Resume of regular broadcasts, 'Australasian Railways Band'.

SPORTS SESSION
11.5: Resume of previous race results. 12.0: Resume of regular broadcasts, 'Australasian Railways Band'.

72L

MIDNIGHT SESSION
11.55 to 12.00

MOORING SESSION
11.55: Resume of previous race results. 11.56: Resume of regular broadcasts, 'Australasian Railways Band'.

SPORTS SESSION
11.55: Resume of previous race results. 11.56: Resume of regular broadcasts, 'Australasian Railways Band'.

60K

EARLY MORNING SESSION
5.0 to 6.30

MOORING SESSION
5.27: Resume of previous race results. 5.28: Resume of regular broadcasts, 'Australasian Railways Band'.

SPORTS SESSION
5.27: Resume of previous race results. 5.28: Resume of regular broadcasts, 'Australasian Railways Band'.
DEPENDABLE RADIO
MARTIN EXPERIMENTAL

POWER AMPLIFIER

Below Find a List of Parts Suitable for Building this Amplifier

1 Transformer, with winding, 550 volts each side of centre tap, 2 8-volt windings, each centre-tapped, and one winding, 2.5 volt, centre-tapped ............................. £6 0 0
2 Heavy Duty Rheostats ............................................. 12 6
1 30 Henry B Eliminator Choke .................................. 1 5 0
5 4mf. Hydra 500 volt test Condensers .......................... 1 17 6
2 Pilot Potential Dividers for Plate Voltage and Grid Bias ...................................................... 17 6
2 2000 ohm. Emmcostads ............................................. 15 0
1 Ferranti AF5C Push-pull Transformer ....................... 3 3 0
1 Ferranti 6P3C Push-pull Transformer ....................... 2 17 0
2 Philips Audio Transformers ...................................... 2 15 0
2 UX281 Half-wave Rectifiers (Radiotron) ............... 4 10 0
2 UX210 Power Amplifiers (Radiotron) ..................... 5 0 0
2 UY227 Amplifiers (Radiotron) ................................ 2 15 0
1 UX874 Voltage Regulator Valve (if required) ............ 2 5 0
3 S.C. Jacks ............................................................ 4 9

The transformers can be supplied in separate units, if desired. Price on Application.

RADIO PARTS ON TERMS
Sets and Parts of any description may be purchased on Easy Terms. Small Deposits and the Balance over five or twelve months.
COUNTRY—25 per cent. Deposit, and Balance in Five Monthly Payments.

Below are a few lines from our large assortment that may be purchased on easy terms.

Philips 3002 Eliminator, Cash price £9 15 0
Dep. 19/6 and 19 Weekly Payments of £9/6.

Philips 3003 BC Eliminator .......................... 10 15 0
Dep. 21/6 and 19 Weekly Payments of £10/6.

Philips ABC Power Pack ...................................... 12 0 0
Dep. 24/ and 19 Weekly Payments of £12/.

Emmco Super-power Eliminator ............................ 12 12 0
Dep. 26/ and 19 Weekly Payments of £12/.

Emmco Maxim H Eliminator ............................... 18 15 0
Dep. 19/6 and 19 Weekly Payments of £18/6.

Emmco Super-power Eliminator ............................ 12 12 0
Dep. 19/6 and 19 Weekly Payments of £12/.

All Types of Magnavox Speakers
STOCKED BY US
ILLUSTRATED LEAFLET ON APPLICATION

Batteryless Radio

A radio set that surpasses everything at anywhere near its price in musical reproduction—a set that excels in general performance as well. No Batteries, Accumulators, or Trickle Charger—works right off your Power Point or Electric-Light Socket.

DEMOnstrations given in your own home DAY OR NIGHT, without any obligation. Just ring B2261, and make arrangements to hear this wonderful Receiver.

The "Colmovox" AC Three is complete with Loud Speaker, Aerial Gear, etc. Sold for Cash or a Small Deposit, and the balance in twelve months.

A.C. Three—Cash Price, £29
TERMS: £6 Deposit, £2/2/2 Monthly.

Colville-Moore Wireless Supplies Ltd.
10 ROWE STREET (Next Hotel Australia), SYDNEY

Telephone B2261
Local Programmes, Sun., June 16

**2FC**

**MORNING SESSION.**

Announcer: A. S. Cochrane.
10.0: "Big Ben" and announcements.
10.2: News service.
10.20: Studio music.
10.35: News service.
10.46: Studio music.
11.0: From the Cathedral Church of St. Andrew—Special Thanksgiving Service for the recovery of His Majesty the King.
12.10 approx.: Close down.

**AFTERNOON SESSION.**

Announcer: C. R. Hall.
2.30: Programme announcements.
2.32: The Cheer-Up Society, conducted by Uncle Frank.
3.0: "Big Ben." Columbia Kolster Reproducer Recital.
3.30: From the Arcadia Theatre, Chatswood: Nicholas Robins at the Wurlitzer Organ.
4.0: From the Studio: Musical items.
4.40: From the Arcadia Theatre, Chatswood: Nicholas Robins at the Wurlitzer Organ.
4.40: From the Studio: Musical items.
5.0: "Big Ben." Close.

**EVENING SESSION.**

Announcer: Laurence Halbert.
6.0: "Big Ben" and programme announcements.
6.02: B. H. Bowden will speak on "Chester, the Walled City.
7.0: Phyllis Broadbent, soprano—(a) "The Star" (Rogers).
7.44: "Little Bunch of Snowdrops" (Philips).
8.27: Kathleen Roe, pianist.
8.44: Phyllis Broadbent, soprano—(a) "Hark! Hark! the Lark" (Schubert).
9.00: "Chiao Mio Ben" (Girlandi).
9.45: From the Lyceum Hall, Pitt Street—The Evening Service, conducted by the Central Methodist Mission.
10.0: From the Studio: Weather report.
10.31: Sydney Burchall, baritone—by arrangement with J. C. Williamson, Ltd.
10.34: Lindsley Evans, pianist.
10.45: Leonore Oostach, soprano.
10.48: Alfred Martelli, cellist—"Chanson Plantifide" (Virardelli).
11.12: Madame Evelyn Grieg, violoncello.
11.14: "Stay with Me" (Dorothy Jones).
11.38: Sydney Burchall, baritone.
12.0: From the Studio: Weather report.
12.30 approx.: Close down.

3.30: From the Sydney Town Hall—Annual Scouts’ Own Service. His Excellency the Governor-General will preside.
4.30: From the Studio—Popular music.
5.0: "Big Ben." Close.

**2GB**

**MORNING SESSION.**

Announcer: G. O. Stevens.
10.45: Hymn.
11.15 approx.: Close down.

10.30: From the Studio: Musical service.
11.0: "Big Ben." Close.

**2BL**

**MORNING SESSION.**

Announcer: A. C. C. Stevens.
11.45: Hymn.
12.15 approx.: From the Studio—"Sun" news service.

3.30: From the Town Hall—Annual Scouts’ Own Service. His Excellency the Governor-General will preside.
4.30: From the Studio—Popular music.
5.0: "Big Ben." Close.

**EVENING SESSION.**

12.0: "Big Ben." Close.

**ALL BRITISH PLAQUE SPEAKER.**

*AT ALL DEALERS £2/10/-*

**DO NOT BE PUT OFF**

with anything else! There isn’t another loud speaker anywhere near as good at anything like the price! The introduction of the original M.P.A. Popular Plaque was epoch-making. Its volume and purity of tone astonished everyone. The new model, with its improved centre adjusting movement, is in every way better. Amazingly sensitive, it is hand-crafted designed, and will stand, or hang upon the wall.

**DISTRIBUTORS: MANUFACTURERS & DISTRIBUTORS.**

1. PRATTEN BUILDING, 26 Jamieson Street, SYDNEY.
2. Forth Avenue, SOUTH MELBOURNE.
3. W. W. BABCOCK & CO., 99 Regent Street, LONDON.
4. M. P. M. & Co., 240 Hope Street, PITTSBURGH.
5. S. N. H. & CO., 1105 2nd Avenue, NEW YORK.

**JAMIESON STREET, SYDNEY.**

Charles D. Maclurcan

*PRATTEN BUILDING, 26 Jamieson Street, BURTON.*
**Interstate Programmes, Sun., June 16**

**WIRELESS WEEKLY**

**3LO**

**MORNING SESSION.**
10.30: Bell from St. Paul's Cathedral.
10.35: Presto, Op. 15, No. 8 (Bach).
11.05: Service from Independent Church, Collin Streeet. Melbourne - Thanksgiving Service for the King's recovery. Hymn 553, National Anthem. Prayer and Lord's Prayer (Chanted). Oratorios Lessons.

**AFTERNOON SESSION.**
2.0: Birthday greetings, by Billy Bunny.

**Mr. Hymn No. 114, "God Bless Our Native Land."**
J. Hoban.

**557, Lord, while for all mankind we pray." Prayer.**

**Notices.**
5.45: Shipping information. 5.47: Answers to letters.

**12.15: Close down.**

**3AR**

**MORNING SESSION.**
11.45: Morning Service from the Wesley Church, Tennyson Street, Melbourne.
11.50: Service from Rose Park Memorial Congregational Church.

**AFTERNOON SESSION.**
3.0: Eddie Fitch at the Wurlitzer.

**5CL**

**MORNING SESSION.**
11.15: Tournament. Selections and Offerings. Hymn, "Let Us with a Glad Heart." Conducted by Mr. Lewis Noble (unaccomp.).

**AFTERNOON SESSION.**
3.0: Eddie Pitch at the Wurlitzer. As Close down.

**4QC**

**MORNING SESSION.**
10.45: Carillon bells from Adelaide Town Hall.
11.15: Morning Service from House of Prayer, Roselind Street, Perth. Realised by the Church of Christ, Perth. 11.30: Morning Service relayed by the Church of Christ, Perth. 11.45: Band Concert from通用 Hall. Perth. Gems from the Perth City Band, conducted by Mr. Les. Price. 12.15: Good Save the King.

**THURSDAY, JUNE 29-**
3LO, 3AR, 4QC, 5CL, 6WP, 7ZL

**SUNDAY MORNING WIRELESS TALKS**

**BY VICTOR E. CROMER ON HEALTH AND MARY RIVETT ON PSYCHOLOGY**

Commencing JUNE 9th, 9 TO 10 O'CLOCK A.M.
Station 2GB-316 Metres


**Local Programmes, Monday, June 17**

**2FC**

**EARLY MORNING SESSION.**

Announcer: A. S. Cochran.

- 7.6: "Treason" and announcements. 7.6: Official weather forecast; rainfall; river reports; temperature; astronomical almanac.
- 7.7: "Sydney Morning Herald" summary.
- 7.15: Shipping intelligence, mail services.
- 7.15: Studio music. 7.15: Investment market, mining and market; metal quotations, wool, sales, bread and butter, Inter-State market, produce markets, produce markets. 7.40: Studio music.

**MORNING SESSION.**

Announcer: A. S. Cochran.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00</td>
<td>Programme announcements. 10.00: Pianoforte reproduction. 10.10: &quot;Sydney Morning Herald.&quot; 10.15: Radio forecasts. 10.30: The 2FC Radio Commission, late sporting news. 10.45: Talk on &quot;Home Cooking and Recipes,&quot; by Miss Ruth Furse. 10.45: B.B.C. Big Band. 11.0: P.A.A. and Receiver's Cable service. 11.15: Close down.</td>
</tr>
</tbody>
</table>

**MIDDAY SESSION.**

Announcer: A. S. Cochran.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
</table>

**AFTERNOON SESSION.**

Announcer: Laurence Halbert.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.30</td>
<td>Programme announcements. 2.30: The Book Lover's Corner. 3.0: &quot;Big Ben.&quot; From Palace Records. &quot;A Recital by the Students of Rex at Cairo Rego. 4.0: &quot;Big Ben.&quot; From the Studio. A reading. 4.58: Romanza's Cafe Dance Orchestra, conducted by I.D. Abrahams. 4.55: From the Studio. —Jove, Hardacre, soprano. 4.42: Dance music. 4.45: Stock Exchange. Third call. 4.47: Romanza's Cafe Dance Orchestra, conducted by Jennie Abrahams. 5.0: &quot;Big Ben.&quot; Close.</td>
</tr>
</tbody>
</table>

**EARLY EVENING SESSION.**

Announcer: A. S. Cochran.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.40</td>
<td>The chimes of 2FC. 5.45: &quot;The Children's Session,&quot; conducted by the &quot;Hobby Makers&quot; Association. Music and entertainment. 6.30: Dalley's market reports (stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. Weather and shipping news. 6.50: B.B.C. News radio, 6.55: Late sporting news. 7.0: &quot;Big Ben.&quot; Late news service. 7.15: The 2FC Dinner Quartette, conducted by Ronan Kelly (a) &quot;The Ball Boy&quot; (Clarke). (b) &quot;Moonlight on the Lake.&quot; (b) Vanon. (c) &quot;Why Not?&quot; (Fletcher). 7.20: The 2FC Dinner Quartette. 7.25: Close down.</td>
</tr>
</tbody>
</table>

**MIDDAY SESSION.**

Announcer: A. S. Cochran.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.00</td>
<td>G.P.O. chimes. &quot;The 2FC Sports Association Session,&quot; conducted by Mrs. Helen J. Besider. 11.40: Close down. 2.0: Music. 2.15: Women's Stakes. 2.30: Studio music. 3.30: Close down. 3.50: Children's session, with Uncle Ouse. 7.0: Talk to children. 7.15: Talk to children. 8.0: Miss Kathleen Cracknell, contralto. 8.15: &quot;Big Ben.&quot; Close. 9.0: G.P.O. chimes. &quot;The 2FC Dinner Quartette,&quot; conducted by Jennie Abrahams. 9.30: &quot;Big Ben.&quot; Close.</td>
</tr>
</tbody>
</table>

**ATEFRNOON SESSION.**

Announcer: Laurence Halbert.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.45</td>
<td>G.P.O. chimes. Popular music. 4.0: G.P.O. chimes. Gladys Clarke, soprano. (a) &quot;Dear My Love&quot; (Del Rio). (b) &quot;When I Was Young&quot; (Gounod). 4.4: A talk by Captain Fred Araps. 4.45: &quot;Hazel M'Donough&quot; (Brahms). 5.4: &quot;Farewell&quot; (Brahms). 5.45: &quot;Hazel M'Donough&quot; (Brahms). 5.50: &quot;Hazel M'Donough&quot; (Brahms). 5.55: &quot;Hazel M'Donough&quot; (Brahms). 6.0: &quot;Hazel M'Donough&quot; (Brahms).</td>
</tr>
</tbody>
</table>

**EVENING SESSION.**

Announcer: Laurence Halbert.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.47</td>
<td>Studio Orchestra, conducted by Horace Keats. (a) &quot; suite, &quot;At Orelia Green.&quot; (a) &quot;A Night of Romance.&quot; (b) Weather. 4.50: &quot;The Bell in Berlin.&quot; (b) True Tales of a Journalist, told by C.P. Foulkes. 4.58: Albert Osborn, Musical Director of the Prince Edward Theatre. (b) &quot;Volta&quot; (Clarke). 5.28: Radio Male Quartet. (a) &quot;The Long Day Close.&quot; (b) &quot;Holy Night.&quot; (Brahms). (c) &quot;I Love You.&quot; (Brahms). 5.30: &quot;Big Ben.&quot; 5.35: Market reports. 5.40: &quot;The 2FC Dinner Quartette.&quot; 5.45: &quot;Volta.&quot; Selection. 6.00: Studio music. 6.00: &quot;Big Ben.&quot; Close.</td>
</tr>
</tbody>
</table>

**2BL**

**MORNING SESSION.**

Announcer: A. C. C. Stevens.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
</table>

**MIDDAY SESSION.**

Announcer: A. C. C. Stevens.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.00</td>
<td>G.P.O. chimes. &quot;The 2FC Sports Association Session,&quot; conducted by Mrs. Helen J. Besider. 11.30: Close down. 2.0: Music. 2.15: Women's Stakes. 2.30: Studio music. 3.30: Close down. 3.50: Children's session, with Uncle Ouse. 7.0: Talk to children. 7.15: Talk to children. 8.0: Miss Kathleen Cracknell, contralto. 8.15: &quot;Big Ben.&quot; Close. 9.0: G.P.O. chimes. &quot;The 2FC Dinner Quartette,&quot; conducted by Jennie Abrahams. 9.30: &quot;Big Ben.&quot; Close.</td>
</tr>
</tbody>
</table>

**AFTERNOON SESSION.**

Announcer: Laurence Halbert.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.50</td>
<td>From the Studio: Stock Exchange.</td>
</tr>
</tbody>
</table>

**EVENING SESSION.**

Announcer: Brussels.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.00</td>
<td>&quot;The 2FC Dinner Quartette,&quot; conducted by Jennie Abrahams. 7.30: &quot;Big Ben.&quot; Close.</td>
</tr>
</tbody>
</table>

**2GB**

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00</td>
<td>Music. 10.10: Happiness talk by A. Bennett. 10.20: Music. 10.30: Women's session, by Miss Helen J. Besider. 11.00: Close down. 2.0: Music. 2.15: Women's Stakes. 2.30: Studio music. 3.30: Close down. 3.50: Children's session, with Uncle Ouse. 7.00: Talk to children. 7.15: Talk to children. 8.00: Miss Kathleen Cracknell, contralto. 8.15: &quot;Big Ben.&quot; Close. 9.0: G.P.O. chimes. &quot;The 2FC Dinner Quartette,&quot; conducted by Jennie Abrahams. 9.30: &quot;Big Ben.&quot; Close.</td>
</tr>
</tbody>
</table>

**2UW**

**MORNING SESSION.**

Announcer: Brussels.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
</table>

**EVENING SESSION.**

Announcer: Brussels.

<table>
<thead>
<tr>
<th>Time</th>
<th>Programme</th>
</tr>
</thead>
</table>

RADIO DEALERS! TERRIOTORY STILL OPEN FOR CLIMAX BATTERIES!

Write to-day for attractive proposition to handle Climax Batteries and other profitable Radio lines.

Special Discounts to Authorised Radio Dealers. Phone MA 3062. MA 1717

"CLIMAX"
The Battery Scientifically Produced by a New and Better process!

Scientific research has revealed the important fact that acids and Sal-ammoniac (largely used in ordinary High Tension Radio Batteries) decompose the Zinc Electrodes, causing most of the battery trouble the user has to contend with.

The "Climax" formula does not include either of these chemicals. "Climax" is made by an entirely new method, which ensures perfect operation over every period of a long and useful life.

Noise and unsteady operation need never be reckoned with if your set is "Climax" equipped!

Undoubtedly, the "Climax" in battery making has been reached in this new-process-product, so aptly named.

CLIMAX "B" BATTERIES
30 Volts, 8/-; 45 Volts, 12/-; 60 Volts, 16/-; 90 Volts, 24/-.

CLIMAX "C" BATTERIES
9 Volts, 4/-; 15 Volts, 6/-.

Equip Your Set With "Climax" To-day and get Maximum Results!

CLIMAX BATTERIES FOR YOUR TORCH
The next time you order torch batteries, see they are "CLIMAX." You will be rewarded with a steadier, brighter, and never-failing light, plus longer life and service, than you have ever had before.

Double Cells, 3 volts, 1/6; Triple Cells, 4½ Volts, 2/3; Flat Cells, 4½ Volts, 1/-. 

FOX & MACGILLYCUDDY LIMITED
DAILY TELEGRAPH BUILDINGS, KING STREET, SYDNEY
DEALERS, WRITE FOR DISCOUNTS
**3LO**

**EARLY MORNING SESSION.**

7.15 to 7.30:

**BROADCASTERS' BREVITIES.**

7.30:

**NATIONAL NEWS.**

7.30 to 7.45:

**NATIONAL NEWS.**

7.45:

**INTERNATIONAL NEWS.**

**AFTERNOON SESSION.**

2.15:

**THE GUILD ORCHESTRA.**

2.30:

**THE GUILD ORCHESTRA.**

**MIDNIGHT NEWS SESSION.**

11.00:

**INTERNATIONAL NEWS.**

**3AR**

**MORNING SESSION.**

10.00 to 10.15:

**MORNING SESSION.**

10.15 to 10.30:

**MORNING SESSION.**

**3CL**

**AFTERNOON SESSION.**

3.00:

**CHORAL SESSION.**

3.45:

**MUSICAL SESSION.**

4.30:

**MUSICAL SESSION.**

5.15:

**MUSICAL SESSION.**

6.00:

**MUSICAL SESSION.**

7.45:

**MUSICAL SESSION.**

8.30:

**MUSICAL SESSION.**

**EVENING SESSION.**

8.30 to 9.00:

**MUSICAL SESSION.**

9.00 to 9.15:

**MUSICAL SESSION.**

9.15 to 9.30:

**MUSICAL SESSION.**

**9QG**

**MORNING SESSION.**

7.45 to 8.00:

**MIDNIGHT SESSION.**

8.30 to 8.45:

**AFTERNOON SESSION.**

9.00 to 9.15:

**AFTERNOON SESSION.**

9.15 to 9.30:

**AFTERNOON SESSION.**

9.30 to 9.45:

**AFTERNOON SESSION.**

9.45 to 10.00:

**AFTERNOON SESSION.**

**5QW**

**MORNING SESSION.**

7.45 to 8.00:

**MORNING SESSION.**

8.00 to 8.15:

**MORNING SESSION.**

8.15 to 8.30:

**MORNING SESSION.**

8.30 to 8.45:

**MORNING SESSION.**

8.45 to 9.00:

**MORNING SESSION.**

9.00 to 9.15:

**MORNING SESSION.**

9.15 to 9.30:

**MORNING SESSION.**

9.30 to 9.45:

**MORNING SESSION.**

9.45 to 10.00:

**MORNING SESSION.**

**WIRELESS WEEKLY**

**INTERSTATE PROGRAMMES, MONDAY, JUNE 17.**

**3LO**

**EARLY MORNING SESSION.**

7.15 to 7.30:

**BROADCASTERS' BREVITIES.**

7.30:

**NATIONAL NEWS.**

7.30 to 7.45:

**NATIONAL NEWS.**

7.45:

**INTERNATIONAL NEWS.**

**AFTERNOON SESSION.**

2.15:

**THE GUILD ORCHESTRA.**

2.30:

**THE GUILD ORCHESTRA.**

**MIDNIGHT NEWS SESSION.**

11.00:

**INTERNATIONAL NEWS.**

**3AR**

**MORNING SESSION.**

10.00 to 10.15:

**MORNING SESSION.**

10.15 to 10.30:

**MORNING SESSION.**

**3CL**

**AFTERNOON SESSION.**

3.00:

**CHORAL SESSION.**

3.45:

**MUSICAL SESSION.**

4.30:

**MUSICAL SESSION.**

5.15:

**MUSICAL SESSION.**

6.00:

**MUSICAL SESSION.**

7.45:

**MUSICAL SESSION.**

8.30:

**MUSICAL SESSION.**

**EVENING SESSION.**

8.30 to 9.00:

**MUSICAL SESSION.**

9.00 to 9.15:

**MUSICAL SESSION.**

9.15 to 9.30:

**MUSICAL SESSION.**

9.30 to 9.45:

**MUSICAL SESSION.**

**9QG**

**MORNING SESSION.**

7.45 to 8.00:

**MIDNIGHT SESSION.**

8.30 to 8.45:

**AFTERNOON SESSION.**

9.00 to 9.15:

**AFTERNOON SESSION.**

9.15 to 9.30:

**AFTERNOON SESSION.**

9.30 to 9.45:

**AFTERNOON SESSION.**

**5QW**

**MORNING SESSION.**

7.45 to 8.00:

**MORNING SESSION.**

8.00 to 8.15:

**MORNING SESSION.**

8.15 to 8.30:

**MORNING SESSION.**

8.30 to 8.45:

**MORNING SESSION.**

8.45 to 9.00:

**MORNING SESSION.**

9.00 to 9.15:

**MORNING SESSION.**

9.15 to 9.30:

**MORNING SESSION.**

9.30 to 9.45:

**MORNING SESSION.**

9.45 to 10.00:

**MORNING SESSION.**
6WF

10.0: Time In. Gramophone and phonograph records from the studio. 11.5: Close down. 12.30: Tune In. 12.30: Markets, news, etc. 1:0: Time signal. 1:1: Weather bulletin supplied by the Meteorological Bureau of Western Australia. 1.2: Piano solo. Hour relayed from Woyzeck, Macquarie St., Lyceum, Sydney. 2.30: Tune In. 2.35: Music and song relayed from the Cafe de Paris, 4.30: Close down.

4.45: Tune In. 5.45: Bedtime stories for the little ones, by Uncle David. 5.45: Light music by the Perth Piano Trio. 7.30: Commercial and general information. 7.45: Talk by Lieutenant-Colonel J.A. C. MacArthur, on "Physical Education." 8.0: Time signal. 8.1: First-watch bulletin. 8.3: Violin duet with Miss Winnie Mack and Miss Ada Dean. 8.30: Talk, "Mystic Java," by Mr. J. Dow, of the Orient Touring Company. 9.00: Late news items by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements, ships within range of the railway station. A program continued from His Majesty's Theatre, being a relay of the London broadcast conducted by Mr. J. Leckie, Mus.B.

THE DAILY NEWS TELEGRAPH COMPANY LTD., Lyric House, Perth.

20.4 METRE TRANSMISSION.

Simultaneous broadcast on 104.5 metres of programs given on 1550 metres, commencing at 5.45 p.m.

7ZL

MID-YA Session

11.10 to 1.30. See Friday.

AFTERNOON SESSION

3.2: Chimes. 3.4: Weather information. 3.5: His Majesty's Victoria. 3.7: Symphony orchestra, conducted by Lieutenant-Colonel Pearsall. 4.00: Oratorio, Co. 4.15: San Francisco Symphony Orchestra. 4.45: Telecasts follow violin solo to International Concert Orchestra. 4.50: "Give Kindly". 6.30: Close down.

EARLY EVENING SESSION

6.15: Announcements. 6.30: I: Answers to letters and birthday greetings, by Uncle David. 7.15: News, etc. Railway station produce sales held at Railway. Announcements.

WILLIAM J. STRAY & SONS LTD., 163 Pitt Street, Sydney.

EVER - READ "EVER - READY" RADIO "B" BATTERY

EFFICIENCY OF SERVICE and ECONOMY IN RUNNING COSTS are obtained only by choosing the right size and type of "EVER - READY" H.T. "B" Battery, together with an "EVER - READY" Bias (No. 126C) Battery. The result—a perfect combination of QUALITY QUANTITY, and LONG SERVICE.

Get yours to-day from any radio dealer

<table>
<thead>
<tr>
<th>Type of Set</th>
<th>Type of Ever-Ready Battery</th>
<th>Total Ever-Ready Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Valve</td>
<td>One W.P. 31 Volt or One W.P. 42 Volt</td>
<td>18 to 42</td>
</tr>
<tr>
<td>2 Valves</td>
<td>Two W.P. 42 Volt</td>
<td>63 to 84 No. 126</td>
</tr>
<tr>
<td>3 Valves</td>
<td>Two W.P. 42 Volt or Two W.P. 45 Volt</td>
<td>84 to 90 No. 126</td>
</tr>
<tr>
<td>4 and 5 Valves</td>
<td>Two S.S. 45 Volt or Two S.S. 45 Volt</td>
<td>90 No. 126</td>
</tr>
<tr>
<td>4, 5, or more Valves</td>
<td>One or two or Three S.S. 45 Volt</td>
<td>90 to 133 One or more No. 126 or one W.P. 31 Volt</td>
</tr>
</tbody>
</table>

There's an interesting folder in colors about these great batteries, with much useful information for radio enthusiasts. Write us for your copy to-day!

WHOLESALE DISTRIBUTORS
THE EVER-READY CO. (Gt. Brit.) LTD., 163 Pitt Street, Sydney.

ROLA REPRODUCERS

In "Wireless Weekly," dated May 31, a description was given of the valve unit, in which the latest models of Rola reproducers are housed. There are available 4, 5, and 10-watt Rola units, priced at 85/6, 11/6 and 13/6 6d. The latter being the correct price after June 15. The U.K. distributors, Ltd., Castlereagh Street, are the distributors.

EVER - READY RADIO BATTERIES

SAFETY FIRST—UTILITY ALWAYS

LOOK FOR THE TRADE MARK

WEIO
Local Programmes, Tuesday, June 18

2FC

EARLY MORNING SESSION.
Announcer: A. C. C. Stevens. 6.00: Breakfast. 6.45: Steel strings. 6.50: Piano. 7.00: Vocal music.

MORNING SESSION.
Announcer: A. C. C. Stevens. 10.00: Vocal music. 10.10: Last-minute sporting information.

AFTERNOON SESSION.
Announcer: A. C. C. Stevens. 1.00: Vocal music. 1.10: Market reports.

2BL

MORNING SESSION.
Announcer: A. C. C. Stevens. 8.00: Vocal music. 8.10: Last-minute sporting information.

MIDDAY SESSION.
Announcer: A. C. C. Stevens. 11.00: Vocal music. 11.10: Market reports.

3GB

MORNING SESSION.
Announcer: A. C. C. Stevens. 6.00: Vocal music. 6.10: Last-minute sporting information.

AFTERNOON SESSION.
Announcer: A. C. C. Stevens. 1.00: Vocal music. 1.10: Market reports.
Install These ACCESSORIES
and have
PERFECT RADIO RECEPTION

*Philips 1017 Trickle Charger*

£3'10'0

Ask us about its ingenious switch that can be connected so as to supply "A," "B," and "C" Power to your present Receiver.

The Philips Eliminator does away completely with your "B" Battery, and is used by simply plugging into the ordinary electric light socket.

**PRICE**

£9/15/-

*PHILIPS BABY GRAND LOUD SPEAKER*

This is a particularly fine baby model with an exceptionally clear tone and pleasing appearance.

Splendid value at £3/15/-

**EVERYTHING** for the **RADIO ENTHUSIAST**

*Easy Terms can be Arranged if Preferred*

Open Till 9 p.m. Friday

**HOME RECREATIONS (Australia), LTD.**

388 GEORGE STREET (Opp. Beard Watson's), SYDNEY
Interstate Programmes, Tuesday, June 18

3L0

EARLY MORNING SESSION.
3.15 to 3.45. 

MOORNING SESSION.

11.30: Melbourne Observatory, Time Signal. 

12.0: Melbourne Stock Exchange information. Prices received by the Station from the Australian Stock Exchange.

12.15: See Friday.

EARLY EVENING SESSION.

7.45 to 8.15. See Friday.

4QG

EARLY MORNING SESSION.

4.45 to 8.45. See Friday.

WIRELESS WEEKLY

Friday, 14th June, 1929

SOUTHLAND NEWS SESSION.

12.0: Melbourne Observer, Time Signal.

12.15: See Friday.

SUNSET SESSION.

6.55 to 7.15. See Friday.

SOUTHLAND NEWS SESSION.

10.0 to 10.30. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

SOUTHLAND NEWS SESSION.

10.0 to 10.30. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.

SUNSET SESSION.

6.30 to 7.30. See Friday.

11.0 to 1.0. See Friday.

SOUTHLAND NEWS SESSION.

12.0 to 1.0. See Friday.
WIRELESS WEEKLY
Friday, 14th June, 1929.

“WHY NOT?”
BRYANT’S VERY EASY TERMS
For Your Radio Parts, etc.

All goods stocked by us are thoroughly reliable, and we can give you expert advice on parts, set construction, etc.

IF YOU HAVE AN ELIMINATOR
Electrify Your Radio Set in the most efficient way—possible—if you purchase a “STEDIPOWER” and a “B” ELIMINATOR.

British Westinghouse Metal Rectifier.

BUILD YOUR OWN STEDIPOWER L.T. UNIT.

All components as specified by makers in stock—Do not buy substitutes.

“WHY NOT?”
A THOROUGHLY RELIABLE B BATTERY
HEAVY DUTY 45 V., 15/6 each.

CHARGERS.

By Home Furnishers, Electrical and Radio Dealers,
545-547-549-551 GEORGE STREET, SYDNEY.

Larger Amounts by Arrangement.

10 Per Cent. added to Cash Prices for terms which cover the whole price.
2BL

MORNING SESSION
Announcer: A. C. Stevens.
11.0: G.P.O. chimes; 2BL Dinner Quartette - (a) "Die Hydro- paten" (Gundt). (b) "Norwegian Dance" (Grieg). (c) "Grand Trio Concertant" (Val- seviler). (d) "Hindoo Song" (Bennet). (e) "Hungarian Dance" (Brahms). 11.15: Popular music.
11.20: Programme.

EVENING SESSION
Announcer: Basil Kirke.
18.30: Programme.
18.40: Programme.
18.50: Programme.

2GB

MIDDAY SESSION
Announcer: A. C. Stevens.
12.55: Official weather forecast: rainfall; river temperatures. 1.0: "Big Ben". 1.05: News and request numbers. 1.10: Symphony Orchestra. 1.15: Popular music.
1.20: Programme.
1.30: Programme.
1.40: Programme.
1.50: Programme.
2.0: Programme.
2.10: Programme.
2.20: Programme.
2.30: Programme.
2.40: Programme.
2.50: Programme.
3.0: Programme.
3.10: Programme.
3.20: Programme.
3.30: Programme.
3.40: Programme.
3.50: Programme.
4.00: Programme.
4.10: Programme.
4.20: Programme.
4.30: Programme.
4.40: Programme.
4.50: Programme.
5.00: Programme.
5.10: Programme.
5.20: Programme.
5.30: Programme.
5.40: Programme.
5.50: Programme.
6.00: Programme.
6.10: Programme.
6.20: Programme.
6.30: Programme.
6.40: Programme.
6.50: Programme.
7.00: Programme.
7.10: Programme.
7.20: Programme.
7.30: Programme.
7.40: Programme.
8.00: Programme.
8.10: Programme.
8.20: Programme.
8.30: Programme.
8.40: Programme.
8.50: Programme.
9.00: Programme.
9.10: Programme.
9.20: Programme.
9.30: Programme.
9.40: Programme.
9.50: Programme.
10.00: Programme.
10.10: Programme.
10.20: Programme.
10.30: Programme.
10.40: Programme.
10.50: Programme.
11.00: Programme.
11.10: Programme.
11.20: Programme.
11.30: Programme.
11.40: Programme.
11.50: Programme.
12.00: Programme.
Always use Cossor Valves.

Britain's finest Valve

Get better Radio — use Cossor Valves. Cossor Valves improve any Radio Set. They'll give you greater volume and sweeter tone. Cossor Valves are made in twenty-four different types for 2, 4, 6 volt or Mains operation.

There is one combination of Cossor Valves that will exactly suit your Receiver — improving its range volume and tone — your Radio Dealer will tell you which types you need — he sells Cossor Valves.

Your Dealer Sells Cossor Valves

Agents for Australia and New Zealand: Lyall, Willis, and Co., Ltd., William House, London (Eng.).

Wholesale Agents for N.W.: James and Joseph, Ltd., 254 Clarence Street, Sydney.

Distributors:

HARRINGTONS, LTD.,
356 George Street.

STROMFEO, CARLSON (A/SIA), LTD.,
78-74 William Street.

BLOCH AND GERRER,
York Street.

F. G. WATSON,
279 Clarence Street.

FOX AND MACGILLICUDDY, LTD.,
Daily Telegraph Building, King Street.

Manufacturers' Products.

Clarence Street.
### 3LO

**EARLY MORNING SESSION.**
10.00 to 10.20: See Friday.

**EVENING SESSION.**
5.30: Transmission from the Freemason's Hall, Collins Street, Melbourne: Speeches from the Rotary Club luncheon.

**MORNING SESSION.**
10.30 to 10.50: Bert Ray, comedian: "My Nose Has -My Mother Bids Me Bind My Hale."
11.00:Middy Hill's and the Melbourne Symphony Orchestra: "Orchestral Overture." 11.30: From Mount Gambier racecourse: Riders and positions for Blue Lake Trial Hurdle race.

**MIDDAY NEWS SESSION.**
1.00 to 1.20: See Friday.

**AFTERNOON SESSION.**
2.00: From the London Stock Exchange: Resume of Mount Gambier race results, Trial Plate. 2.15: From Mount Gambier racecourse: Riders and positions for Blue Lake Trial Hurdle race.

**EVENING SESSION.**
5.00 to 5.20: See Friday.

### 3AR

**MORNING NEWS SESSION.**
10.00 to 10.50: See Friday.

**MORNING SPECIAL SESSION.**
11.00 to 11.30: See Friday.

**AFTERNOON SESSION.**
2.00: B. Curtis, cornet solo: "Machusla." 2.15: M. M'Faul, soprano: "Beautiful Ireland."

**EVENING SESSION.**
5.00 to 5.20: See Friday.

### 4SC

**MORNING NEWS SESSION.**
10.00 to 10.50: See Friday.

**EVENING SESSION.**
5.00 to 5.40: See Friday.

### 5CL

**MIDDAY SESSION.**
1.15: From Mount Gambier racecourse: Riders and positions for Blue Lake Trial Hurdle race.
1.30: M. McKeown, soprano: "The James Cilrls"-In a musical story, "The Evolution of Dixie."
2.30: Transmission from the Freemason's Hall, Collins Street: Speeches from the Rotary Club luncheon.

**AFTERNOON SESSION.**
3.00: From Mount Gambier racecourse: Riders and positions for Blue Lake Trial Hurdle race.

**EVENING SESSION.**
5.00 to 5.40: See Friday.

---

---
Battery Operated Radio Sets and Speakers
At Less than
HALF PRICE

Late Model 8-valve UDISCO PORTABLE SETS, stripped, £18

Late Model 4-valve CHAPIN CHASSIS, stripped

Late Model 5-valve CHAPIN SETS, stripped

Late Model 6-valve PARADYNE SINGLE CONTROL SETS, £21

Late Model 5-valve PARADYNE SETS, stripped

Late Model ROLA CONE SPEAKERS (used), £7/15/

Latest Model AMPLION A.C.21 SPEAKER, £7/10/

Latest Model QUAM CONE SPEAKERS, £5/5/

Latest Model ACME DOUBLE CONE SPEAKERS, £7/10/

Latest Model ACME SINGLE CONE SPEAKERS, £5/5/

Military Band Contest

The winner of the Third Military Band Contest, held on May 25 at the Melbourne Cricket Ground—the 23rd Battalion Band—will be presented with the ELO Trophy Shield at the studio on June 18. The band, under the direction of Sergeant Skano, displayed a high degree of musical efficiency, and won the warm approval of the adjudicator, Mr. Percy Code. After the presentation of the shield the band will render the test piece, "Flowers of Australia," in which they were coached by the popular bandmaster, Mr. P. O. Johnson.

TRANSFORMERS

Built up to a specification and wound.

Prices and estimates on application.

O'DONNELL, GRIFFIN, and CO., Ltd.,
83 Druitt Street, Sydney.
Phones: M2211 (3 lines).
Local Programmes, Thursday, June 20

**2FC**

**EARLY MORNING SESSION.**

Anouncer: A. S. Cochrane.

7.0: "Big Ben" and announcement.

7.45: "Selection of Songs" (Del Riego), (a) "Lullaby" (Brahms), (b) "The Garden of my Heart" (Moto), (b) "The Princess and the Nightingale" (R. Strauss), (c) "My Old Kentucky Home" (Guy), (d) "Canzonetta" (D'Ambrosio). 9.26: C. M. Baezparents will speak on Stephen Leacock.

9.41: Alexander Sverjensky, pianist.

9.51: Eleanor Ross. (a) "Old Mrs. Willow" (John Drinkwater). 11.10: "The Listeners" (Walter de la Mare).

9.58: From the State Theatre - The State Theatre Orchestra, conducted by Will Prior.

Price Dunlay at the State Theatre Organ.

10.25: From the Studio - Late weather report.

10.30: From the Hotel Australia: Cec Morrison's Dance Band.

10.37: From the Studio - To-morrow's programme.

10.50: From the Hotel Australia: Cec Morrison's Dance Band.


**MORNING SESSION.**

Anouncer: A. S. Cochrane.

10.0: "Big Ben" and announcements.

10.2: Piano forte reproduction.

10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.25: Last minute sporting information by the 2FC Racing Commissioner.

10.40: Studio music. 11.05: "Big Ben." A.P.A. and Reuter's Cable service. 11.5: Close down.

**MIDDAY SESSION.**

Anouncer: A. S. Cochrane.

12.0: "Big Ben" and announcements.


12.5: "Big Ben." Weather intelligence. 12.55: "Selection of Songs" (Greig), (a) "The Battle of Two Cities" (Del Riego). 13.0: "Selection of Songs" (Del Riego), (b) "Selection of Songs" (Del Riego), (c) "Canzonetta" (D'Ambrosio). (b) "Lebenskleid" (Hessler).

9.26: C. M. Baeze parents will speak on Stephen Leacock.

9.41: Alexander Sverjensky, pianist.

9.51: Eleanor Ross. (a) "Old Mrs. Willow" (John Drinkwater).

11.10: "The Listeners" (Walter de la Mare).

9.58: From the State Theatre - The State Theatre Orchestra, conducted by Will Prior.

Price Dunlay at the State Theatre Organ.

10.25: From the Studio - Late weather report.

10.30: From the Hotel Australia: Cec Morrison's Dance Band.

10.37: From the Studio - To-morrow's programme.

10.50: From the Hotel Australia: Cec Morrison's Dance Band.


**2BL**

**MORNING SESSION.**

Anouncer: A. C. C. Stevens.

8 a.m. G.P.O. news; weather report. State and metropolitan. 8.31: Studio music. 8.15: News and information service from the Daily Telegraph - Pictorial. 8.45: Studio music. 9.30: G.P.O. chimes; half an hour with Uncle Ted and Sandy. 10.0: G.P.O. chimes; close down.

**MIDDAY SESSION.**

Anouncer: A. C. C. Stevens.

11.0: G.P.O. chimes; 2BL Women's Sports Association session, conducted by Miss Gwen Valley.

11.30: Advertising hints.

11.45: "Selection of Songs" (West), (b) "A Fallen Star" (West), (c) "Enchantment" (Boswell). 12.0: G.P.O. chimes; special ocean forecast and weather report. 12.3: Piano forte reproduction. 12.30: Shipping and mails. 12.31: "Selection of Songs" (West). 12.45: "Sun" midday news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital by Uncle Steve. 2.0: G.P.O. chimes; close down.

**AFTERNOON SESSION.**

Anouncer: A. C. C. Stevens.

1.05: "Selection of Songs" (West). 1.15: "Selection of Songs" (West), (a) "Canzonetta" (D'Ambrosio). (b) "Lebenskleid" (Hessler).

9.26: C. M. Baeze parents will speak on Stephen Leacock.

9.41: Alexander Sverjensky, pianist.

9.51: Eleanor Ross. (a) "Old Mrs. Willow" (John Drinkwater). 11.10: "The Listeners" (Walter de la Mare).

9.58: From the State Theatre - The State Theatre Orchestra, conducted by Will Prior.

Price Dunlay at the State Theatre Organ.

10.25: From the Studio - Late weather report.

10.30: From the Hotel Australia: Cec Morrison's Dance Band.

10.37: From the Studio - To-morrow's programme.

10.50: From the Hotel Australia: Cec Morrison's Dance Band.


**2BL**

**MORNING SESSION.**

Anouncer: A. C. C. Stevens.

8 a.m. G.P.O. news; weather report. State and metropolitan. 8.31: Studio music. 8.15: News and information service from the Daily Telegraph - Pictorial. 8.45: Studio music. 9.30: G.P.O. chimes; half an hour with Uncle Ted and Sandy. 10.0: G.P.O. chimes; close down.

**MIDDAY SESSION.**

Anouncer: A. C. C. Stevens.

11.0: G.P.O. chimes; 2BL Women's Sports Association session, conducted by Miss Gwen Valley.

11.30: Advertising hints.

11.45: "Selection of Songs" (West), (b) "A Fallen Star" (West), (c) "Enchantment" (Boswell). 12.0: G.P.O. chimes; special ocean forecast and weather report. 12.3: Piano forte reproduction. 12.30: Shipping and mails. 12.31: "Selection of Songs" (West). 12.45: "Sun" midday news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital by Uncle Steve. 2.0: G.P.O. chimes; close down.

**AFTERNOON SESSION.**

Anouncer: A. C. C. Stevens.

1.05: "Selection of Songs" (West). 1.15: "Selection of Songs" (West), (a) "Canzonetta" (D'Ambrosio). (b) "Lebenskleid" (Hessler).

9.26: C. M. Baeze parents will speak on Stephen Leacock.

9.41: Alexander Sverjensky, pianist.

9.51: Eleanor Ross. (a) "Old Mrs. Willow" (John Drinkwater). 11.10: "The Listeners" (Walter de la Mare).

9.58: From the State Theatre - The State Theatre Orchestra, conducted by Will Prior.

Price Dunlay at the State Theatre Organ.

10.25: From the Studio - Late weather report.

10.30: From the Hotel Australia: Cec Morrison's Dance Band.

10.37: From the Studio - To-morrow's programme.

10.50: From the Hotel Australia: Cec Morrison's Dance Band.


**2BL**

**EVENING SESSION.**

Anouncer: A. S. Cochrane.

5.40: The themes of 2FC. 5.45: The Children's Session, conducted by the "Hello Man" by Uncle Ted and Sandy. Letters and stories. Music and entertainment. Olie Daliento's market report (wheat, wheat, and stock). 6.40: Fruit and vegetable market report. 7.00: News and information service. 8.0: Weather and shipping news. 6.50: Rugby League. 7.00: "Big Ben." 8.0: Stock Exchange service. 7.10: The 2FC Dinner Quartet, conducted by Horace Keas. (a) "Quintet" (Hanslik). (b) "To the Sorrows" (Grieg). (c) "Conductor's Son" (Grieg). 9.30: Symphony. 10.0: G.P.O. chimes. Close down.

**EVENING SESSION.**

Anouncer: Laurence Halbert.

7.45: Popular music.

7.55: Programme announcement.

7.48: A Record Recital.

8.0: "Big Ben." From the State Theatre: The State Theatre Orchestra, conducted by Will Prior.

Price Dunlay at the State Theatre Organ.

8.0: From the Studio - Early Evening Session.

8.37: Tom Williams, violinist. (a) "Romanza" (Wieniawski). (b) "Grande Polonaise." 11.40: "Big Ben." Close down.

8.40: From the Studio - Early Evening Session.

8.37: Tom Williams, violinist. (a) "Romanza" (Wieniawski). (b) "Grande Polonaise." 11.40: "Big Ben." Close down.

**2UW**

**MIDDAY SESSION.**

12.30: Request numbers. 1.0: G.P.O. clock and chimes. 11.15: "In Memory of Mr. Jack W. Heaths." 12.30: Close down.

**EVENING SESSION.**

3.30: Children's Session, conducted by DJs Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes. 8.0: "Music and entertainments." 8.15: Garden talk by Mr. S. Hunt. 9.0: Weather report. 10.26: G.P.O. chimes. Close down. 10.30: "Music and entertainments."
Fit **FERRANTI**

For **FINER REPRODUCTION**

**THESE** are the vital points in your radio set so far as purity and true reproduction are concerned. If you get distorted magnification at "A," then "B" will magnify that distortion and with its own distortion will make reception still more unnatural until the final reproduction is "mush."

- AF 3 45/-
- AF 4 34/-
- AF 5 57/-

**EXPONENTIAL SPEAKER**

£ 5/5/

Fit Ferranti Transformers at points "A" and "B" and you will get purity and life-like reproduction of a quality that will delight you.
WIRELESS WEEKLY

Friday, 14th June, 1929

Interstate Programmes, Thursday, June 20

3LO

EARLY SESSION
10.15 to 11.0

10.15: Dr. Leota Mills, "Life's Facts and Fun-

11.0: Programme announcements.


11.30: "I Don't Know Why I Do It." (Valli).

11.45: "Preedy, Bump, Ambridge." (Friends).

12.0: "My Name's Annie." (Sailor).

12.15: "There's a Rainbow Behind Your Shoulder" (O'Brien).


1.0: "My Neighbor." (Baritone).


1.30: "When Love Comes Sneaking" (Singer). "Roll By the Cabaret." (Guiliani).

1.45: "I'm Sorry, Sally." (Kahn).

2.0: Programme announcements.


2.30: "Casablanca." (Evans).

2.45: "There's a Rainbow Behind Your Shoulder." (O'Brien).

3.0: "My Heart Stood Still." (Baer).

3.15: "My Mother's Eyes." (Baer).

3.30: "When You Know Me." (Baden).

3.45: "Don't Know Why I Do It." (Valli).

4.0: "I'm Sorry, Sally." (Kahn).


5.0: "Roll Up the Carpet." (Dorey). "My Angeline." (Bailey).

5.15: "There's a Rainbow Behind Your Shoulder." (O'Brien).

5.30: "The Radio Revellers." (Singer).

5.45: "Don't Know Why I Do It." (Valli).

6.0: "Hum and Strum." (Dorey). "I'm Sorry, Sally." (Kahn).


6.30: "Don't Know Why I Do It." (Valli).

7.0: "I'm Sorry, Sally." (Kahn).


7.45: "I'm Sorry, Sally." (Kahn).

8.0: "The Radio Revellers." (Singer).


8.30: "Don't Know Why I Do It." (Valli).

8.45: "I'm Sorry, Sally." (Kahn).


9.15: "Don't Know Why I Do It." (Valli).

9.30: "I'm Sorry, Sally." (Kahn).


10.0: "Don't Know Why I Do It." (Valli).

10.15: "I'm Sorry, Sally." (Kahn).


10.45: "Don't Know Why I Do It." (Valli).

11.0: "I'm Sorry, Sally." (Kahn).


11.30: "Don't Know Why I Do It." (Valli).

11.45: "I'm Sorry, Sally." (Kahn).

12.0: "The Radio Revellers." (Singer).

12.15: "Don't Know Why I Do It." (Valli).

12.30: "I'm Sorry, Sally." (Kahn).


EARLY MORNING SESSION
1.15 to 2.15

1.15: Group G—Sea Songs.


1.30: "When the Swing Comes." (Gray).


2.0: "When the Swing Comes." (Gray).

2.05: "The Swinging Johnny." (Raymonds).

2.10: "Lights." (Raymonds).


2.20: "When the Swing Comes." (Gray).


2.30: "Lights." (Raymonds).

EARLY MORNING SESSION
11.0 to 12.0

11.0: Programme announcements.


11.30: "I Don't Know Why I Do It." (Valli).

11.45: "Preedy, Bump, Ambridge." (Friends).

12.0: "My Name's Annie." (Sailor).

12.15: "There's a Rainbow Behind Your Shoulder." (O'Brien).


1.0: "My Neighbor." (Baritone).


1.30: "When Love Comes Sneaking." (Singer). "Roll By the Cabaret." (Guiliani).

1.45: "I'm Sorry, Sally." (Kahn).

2.0: Programme announcements.


2.30: "Casablanca." (Evans).

2.45: "There's a Rainbow Behind Your Shoulder." (O'Brien).

3.0: "My Heart Stood Still." (Baer).

3.15: "My Mother's Eyes." (Baer).

3.30: "When You Know Me." (Baden).

3.45: "Don't Know Why I Do It." (Valli).

4.0: "I'm Sorry, Sally." (Kahn).


5.0: "Roll Up the Carpet." (Dorey). "My Angeline." (Bailey).

5.15: "There's a Rainbow Behind Your Shoulder." (O'Brien).

5.30: "The Radio Revellers." (Singer).

5.45: "Don't Know Why I Do It." (Valli).

6.0: "Hum and Strum." (Dorey). "I'm Sorry, Sally." (Kahn).


6.30: "Don't Know Why I Do It." (Valli).

7.0: "I'm Sorry, Sally." (Kahn).


7.45: "I'm Sorry, Sally." (Kahn).

8.0: "The Radio Revellers." (Singer).

8.15: "Don't Know Why I Do It." (Valli).

8.30: "I'm Sorry, Sally." (Kahn).

W. FURNESS,
1st Floor, Furness Chambers,
KING'S CROSS, DARLINGHURST.
Stamps, Cigars, and all Component Parts as used in the Trades like Tobaccos, Cigars is guaranteed to proper specification.
(Change - Whashed if desired).
Terms may be arranged.

6WF

EARLY EVENING SESSION

7.0: Selections. 7.10: The Mary Lady. 7.20: Answers in letters and birthdays greetings by Mabel Davia and the Dirty Lady. 11.0: News session.

EVENING SESSION

7.30: Under the auspices of the "Come to Tasmania" Organisation, L. Norman will speak on "How to select a holiday in Tasmania." 7.40: W. H. Cumine, Director of the Meteorological Bureau of Western Australia. 7.50: "Mr. Wonderful Hour" (Barossa). 8.0: Programme continued from the Studio.

EARLY EVENING SESSION

7.30: Under the auspices of the "Come to Tasmania" Organisation, L. Norman will speak on "How to select a holiday in Tasmania." 7.40: W. H. Cumine, Director of the Meteorological Bureau of Western Australia. 7.50: "Mr. Wonderful Hour" (Barossa). 8.0: Programme continued from the Studio.

7ZL

MIDNIGHT SESSION

11.30 to 1.30: No Friday.

AFTERNOON SESSION

5.0: Chimes 3.4: Weather information. 4.15: Child welfare. 4.30: Close down.
raze Fifty-Ton Limon
British-built Transformers. Bakelite shielded 10 WIRELESS WEEKLY
De Jur Midget Variable Condensers 7 Plates, 4/6.
Amplion "Rheostatic" Cone Knob Plate, £15/15. NOW 5/6.
De Jur Sprayer Cushion Socket, with Terminals, 5/6.
Harries Garth Clamping, just landed.
De Jur Variable Condensers. The New Fixed - Aluminised. There's one for every Valve, 6/6 or 4/6 with mounts.
We stock all Equipment, necessary for constructing A.C. Sets, and the Prices are Far Lower than Elsewhere.
Compact. 00035 Brass Plate Variable Condensers, 10/6. NOW 4/9.
Electrical Insulated Aerial. 51/6. 5/7.
"Rison" Super Audio Transformers, equal any Transformer made. 5/6.
"Rison" Super Audio Transformers, equal any Transformer made. 5/6.
T.C.C. Electrolyte Condensers. For Medium 4's Units. 25/6.
Floor or Table Model Cabinets in Stock from £1 Each. Inspection invited.
Garden Gramophone Pick-up. Now 15/6.
De Jur Ebonite, Metal, 6, and 8 valve, £2/6. Bakelite, 10, 15, 5.
Waddington Metal Radiators. £6/6/6.
Strouhmer Custom Loud Speakers. £2/6/6. NOW 6/6.
De Jur Sprayer Cushion Socket, with Terminals, 5/6.
De Jur Battery Supply, 5/6.
"Like a Flash" Battery Eliminators for sets up to 3 Valves. £1/6/6. Simple Chart Free.
MAIL ORDERS receive prompt attention.
Please add Freight. We do the largest Mail Order Radio Business in the Commonwealth.
MAIL YOUR ORDER TO-DAY.
"Like a Flash" Battery Eliminators for sets up to 3 Valves. £1/6/6. Simple Chart Free.
We do the largest Mail Order Radio Business in the Commonwealth.
MAIL YOUR ORDER TO-DAY.

LEVENSON'S RADIO
THE PALACE OF WIRELESS
226 PITTS STREET, SYDNEY
(Opp. Palace Theatre)
Branch: 86a Pitt St., near Martin Place

The Catalogue
that will save you pounds!

Send 5d for it
To-day. 44 pages, fully illustrated, containing comprehensive details at 4d.

Levenson's Own 2/3-valve Heavy Duty "T" Batteries. 5/- Type. My Price 3/6. Thousands sold. Ne
er's Complained.
General—Mr. E. C. Davidson writes: "Promised to see the circuit, but don't think the correct one would be given, if I could. I am a single spark, that I have beenQUESTIONS received on Wireless Service.WIRELESS WEEKLY. Friday, 14th June, 1929.

A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.F.S. (Larnache).—Recent work done at the transmitter for the new band. Two bands are under test.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
A.H. (Melbourne).—Sorry. no copies.
A.B. (Canberra).—Trouble is in audio transformers. Try a change, such as the new Igranic.
A.C.S. (Winnipeg).—Use a Power Pack.
A.F.S. (Thornleigh).—No wonder set misses you.
A.G. (Oxenford).—Check over wiring. Hard to say where fault may lie.
"adequately a one-valve amplifier circuit was published in last week's queries, with the following caption: "Receivers readers write that when using a homemade eliminator, the fuse blows as soon as the mains are turned on. This is because one side of the mains and one side of the filament of the receiving circuit are earthed. The remedy is to place a 1/4 mfd. condenser, 100 volts, in series with the earth lead." The correct diagram is shown above.

N.D. (Kogarah).—The moving plate, or those near the tail of the arrow, is too much "battery". G.R.E.C. (Parkes).—If two transformers of different makes are used, try reversing primary of one transformer.

D.C. (Cammeray).—Try reversing condenser connections (one condenser at a time) and try a 1/4 mfd. condenser across primary of first transformer.

G.R.E.C. (Parkes).—If two transformers of different makes are used, try reversing primary of one transformer and third condenser across primary of first transformer.

A.P.J. (B.W.N.W.).—Probably potentiometer will be required to close up carrier. Suggestion is to use N.G. It would take much space. Large in size, or such too large, or condenser too few capacity.

J.A.I. (Gladesville).—(1) 12 volts. 24 gauge wire spaced 1/4 inch from the bath, which should be 47 turn. The condenser will be spaced 47 turns from the bath. (2) Take a 1-inch length of the same wire on a three-inch length former. Condenser 1 should be 2,000 mfd., and condenser 2 20,000 mfd.

E.G. (Wagga).—4 hours per day is 16 hours per week. Three times this is 168 hours, occurs from your battery, which is cutout normal. 1 hour per day is a lot, you know. Suggest using 1-2 batteries.

A.L. (Crommelin).—Some listener near you is making his receiver oscillate on the local station.

E. L. (Abbottville).—We have all these caps in stock. Shall we forward them? Please send us copies, if required.

M.E. (Kangaroo Valley).—Ascending Am. Ltd.

C.H.V. (Eastwood).—Shorten your aerial and try changing your condenser on both, i.e. a medium or large coil, instead of small coil, and aerial all earth to small coil, spaced 14-inch from (2). Which should be 47 turns of wire.

T.M. (Eenfield).—Place a 1 mfd. condenser in series with the earth lead.

E.M.I. (Stannaway).—Is your supply A.C. or D.C.? If you care to advise we will tell you what to do. Fine plate to grid, coupling plate to filament and a set of eliminator condensers, the plates spaced 14-inch from (2). Which should be 47 turns of wire.

A.W. (Burraneer).—Yes, use potentiometer. Variable grid leak 0.8. Keep plate. Do not turn on, as this may be increased to 0.8 by the plate voltage.

A.J. (Brownsen).—Yes, use potentiometer. Variable grid leak 0.8. Keep plate. Do not turn on, as this may be increased to 0.8 by the plate voltage.

T.B. (St. Peters).—We have discontinued the practise of sending copies on trust. Please post us stamps for copy.

R.C.C. (Randwick).—Yes, there is a fuse before you can switch them. Crystal ratio is not the same as yours, but it is incorrect, and it is only practical use between 10 to 15 watts. Thank you for your offer, see later.

General.—Mr. R. C. Delaune, 28 Wingham Road, Professional reader who has black numbers which we have had by readers requiring them (perhaps post is forwarded.)

General.—Mr. J. E. Beak, 48 Gilbert Avenue, Professional reader who has black numbers which we have had by readers requiring them (perhaps post is forwarded.)

B.B.D. (Electrical).—Yes, it is very useful. The receiver of any size to be included in place with any device.

WIRELESS WEEKLY

---

DIAMOND

The Symbol of Quality of Jewels

and also the Symbol of Superiority Among Batteries

The Seamless Cell

A Battery for every purpose, over 40 different types to choose from. Upright or Flat.

Block & Gecare Ltd.
British General Electric Ltd.
Fox & McGillivray Ltd.

Factory Representations:
 Contractors to C'swealth and State Gov'ts.

Reg. Rose & Co.
KEMBLA BLDG., MARGARET STREET, SYDNEY
B 3872.

---

WIRELESS WEEKLY

---

Friday, 14th June, 1929
"1/- A MICROFARAD"—FIXED CONDENSERS

10 MFD .. 9/6 8 MFD .. 9/6 6 MFD .. 8/6

Splendid for "B" Eliminators

BATTERY WORRIES

ARE SOLVED WITH EXIDE

ACCUMULATORS—4 VOLT, 20 AMP.

HOUR (UP TO 3-VALVE SETS), 15/6

1/6

75/-

BUYS A BRANDS

ELLIPITCONE

CONC TYPE SPEAKER

Which Elsewhere are Advertised at $6

SEND BY RAIL,

D.RY-CHARGED

WALLACE WAVE TRAP Eliminates Stations You

Don't Want, and Boosts Those You Do—17/6—Kit of parts, 14/6

WRITE FOR FREE INSTRUCTION SHEET

WE SELL EVERYTHING FOR RADIO.

"The Wireless Shop"

Miss F. V. Wallace

6 Royal Arcade, Sydney

THE OLDEST RADIO FIRM IN TOWN

Established 8 Years.

Phone, MA 5543

Two doors from George Street, opp. Q.V. Markets.

WHAT YOU WANT!!

A COMBINATION OF TONE AND VOLUME

You can only achieve this with resistance coupled amplification. Throw out your cheap transformers and couple up two, three, or even four stages of resistance amplification, and note the difference.

For your electric pick-up this is undoubtedly the finest method of bringing out those lost notes.

THE POLYMET MATCHED UNITS

<table>
<thead>
<tr>
<th>2 Stage</th>
<th>Contains—</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Condenser Mount</td>
<td>2 Resistor Couplers</td>
</tr>
<tr>
<td>2 006 Condensers</td>
<td>1 002 Coupler</td>
</tr>
<tr>
<td>2 100,000 Resistors</td>
<td>2 Grid Leaks</td>
</tr>
<tr>
<td>COMPLETE, 7/6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3 Stage</th>
<th>Contains—</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Condenser Mount</td>
<td>3 Resistor Couplers</td>
</tr>
<tr>
<td>3 006 Condensers</td>
<td>2 002 Coupler</td>
</tr>
<tr>
<td>1 100,000 Resistors</td>
<td>2 Grid Leaks</td>
</tr>
<tr>
<td>COMPLETE, 10/</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4 Stage</th>
<th>Contains—</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Condenser Mount</td>
<td>4 Resistor Couplers</td>
</tr>
<tr>
<td>4 006 Condensers</td>
<td>1 002 Coupler</td>
</tr>
<tr>
<td>5 100,000 ohm. Resistors</td>
<td>3 Grid Leaks</td>
</tr>
<tr>
<td>COMPLETE, 12/</td>
<td></td>
</tr>
</tbody>
</table>

Hoosic New Process
8 Batteries.
90 volt, 19/6.
100 volt, 22/6.

Poly Clara Plug
Improves reception.
Eliminates Scratches.
4/-

Price’s Radio Service

Wingello House, Angel Place

Box 3326PP, G.P.O.
Is Your Set Giving Satisfaction?

If not, we will rewire it to an up-to-date circuit, and guarantee satisfaction. We can also rewire your present battery operated to a genuine all-electric receiver. Just plug in and switch on—no batteries. All workmanship and material is guaranteed.

Sets of any type built to order at minimum cost.

G. C. Beardsmore
Fourth Floor,
38 Martin Place,
SYDNEY
Phone: B1773
Agent for:
Te-Ka-De Valves and Sets.

Genuine Formo Products

Every Formo NON-MECHANICAL UNIT (Choke, L.F. Transformer, Combination Unit) is GUARANTEED 12 MONTHS. Each box contains its guarantee ticket—see that your dealer completes it at time of purchase. A small charge of 1/6 is made to cover cost of handling on each replacement. Please include this amount when claiming.

The Famous "1928" Log Model

As the gauge of the wire, how many turns required, etc., please advise your requirements.

H. E. (Sydney) asked if any reader could supply him with WIRELESS WEEKLY dated February 1 and 8, 1929, also copy of issue containing the Maharashtra. Other readers please note this method of sending samples for comment.

M. Drummond, Home Sanitation, Ltd., 10 Bligh St., Sydney, with copy of WIRELESS WEEKLY dated 1929, received a message advising that W.B. (Sydney) had orders to oblige Mr. L. Peters. -0.K. for chargers to heat up 7/6.

Some time ago I tried a 250 turn honeycomb coil for a Reinformer, but with no result: reversing the connections of the first audio transformer, but with no result, but on reversing the connections to primary of second transformer I did the trick. The markings on the transformer are practically the same, the only difference being in the size of the wire used. I then everything I could think of but without result.

WIRELESS WEEKLY
Friday, 14th June, 1929

Electrolytic Condensers
2000 MFD.

The wonderful "Stedipower" Unit described in an article in this magazine on May 17th, and which is acclaimd to be the greatest boon in Radio, is made possible only by the use of T.C.C. Electrolytic Condensers. Get free booklet on "How to Build Your Own Stedipower L.T. Unit."

ALL RADIO DEALERS

British's Most Popular Components are obtainable throughout the Commonwealth.

Formo-Densor

Variable-Fixed Condenser

Ref. to Min. Price

F .0001 .000075 4/6
J .0003 .00025 1/6
G .0005 .0003 4/6
H .0001 .0001 6/6

Catalogue—Ask your dealer—Catalogue

Factory Representative: Whitelaw & Wood Pty. Ltd., Cathcart House, 11C Castlereagh St., Sydney; 312 Flinders St., Melbourne.
Turn it ever so slightly—note the extreme selectivity of tuning, as sharp as a needle. It's the logarithmic Centraline principle upon which A.W.A. Condensers are designed that makes the tuning so sharp. And their rigid construction renders "back lash" or unevenness impossible — movement is firm and true all the way round.

The hollow spindle makes provision for clockwise and anti-clockwise movement, together with gang operation if required. Absolute minimum in insulating material, ensuring low loss. Silver plated throughout, giving attractive appearance.

Obtainable from all Radio Dealers.

Made in four capacities:

- .00015 (7 plate) 12/-
- .00025 (13 plate) 12/6
- .00035 (17 plate) 13/-
- .0005 (23 plate) 13/9

As Sharp as a Needle

47 YORK STREET - SYDNEY
THIS speaker, with its “16 inch” non hygroscopic bronze cone, its superlative “one-piece” mahogany bakelite moulding, and polished rim, is a most beautiful model, and well worthy of the name of Amplion. Its beautiful reproduction is well in keeping with its beautiful appearance.

AMPLION A/SIA LTD., 53-55 York St., Sydney
Distributors in all States

£3.17.6