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Wireless Weekly 3^d

INCORPORATING "RADIO IN AUSTRALIA & NEW ZEALAND"

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FRIDAY, JUNE 14, 1929

(Registered at the G.P.O., Sydney, for transmission by post, as a newspaper.)



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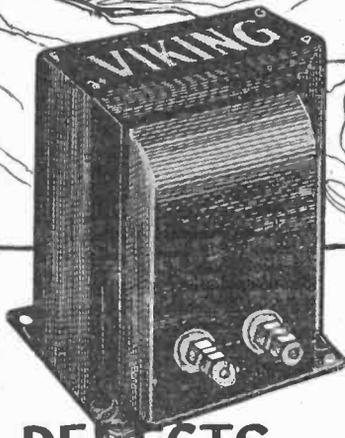
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TRADED-IN RADIO SETS.

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The Sale will close positively on the 21st June.

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Who Tells the Best Tale?



C. N. BAEYERTZ

"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.

"My Most Interesting Experience"

The Editor,
"Wireless Weekly,"
Box 3366 PP. G.P.O., Sydney.
I vote for the competitors in the above competition in the following order of preference:

- | | |
|---|---|
| <input type="checkbox"/> C. N. BAEYERTZ. | <input type="checkbox"/> BASIL KIRKE. |
| <input type="checkbox"/> "THE STORYTELLER." | <input type="checkbox"/> "BRINGA." |
| <input type="checkbox"/> C. R. HALL. | <input type="checkbox"/> PRICE CONIGRAVE. |

FROM

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BETWEEN YOU & ME AND THE MICROPHONE

WE 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 Housemaids, 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. Italy has ordered something in the same shade to talk to her Colonies 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. Announcers might refuse to speak pidgin 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 programmes. 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. Townsend, 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 this 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.

James

Listeners We All Know—No. 2

THE JAZZ FAN

You see the pert young thing winking the glad eye so freely! Please put your hand over the wink; we can't write in the presence of Glad Eyes.

THE Jazz Fan sits in his armchair, and turns on the switch. Out from the loud-speaker comes a Trio in B flat. It will be followed by a violin sonata in C sharp, and Our Special Selection from the Works of Mozart, which shows this Great Composer's Genius manifested in all departments of Music.

For the Jazz Fan has decided to improve his mind. He will see what there is in this Classical Music. Peculiar thing. Classical Music. The parts you ought to like are the parts you think you oughtn't to like. Whenever you hear something with a kick in it, you shouldn't notice it; but when the music is deadly dull, you should show intelligent appreciation. Funny about appreciation. Some people are never happy unless they're appreciating something they don't like. Look at Marjory. Can't understand why that girl's so superior since she began to get about with the Conservatorium crowd. Going to the Con. on Saturday night. Why on earth couldn't she say straight out she didn't want to go to Bill's party at Romano's? How the hell can I sit in the Conservatorium for three hours on Saturday night? Wanted to go to Bill's party, too. How about a headache . . . a cold . . . tell her I'm going to Newcastle. . . I'll do it somehow.

Lord, that dam Trio's still playing! Lessee: there's a dance band from ZBL at ten. What I need is a good hot number to cheer me up.

Take your hand off that girl's face. Can't you see we're finished writing? You know, we rather like Glad Eyes, out of business hours. Wonder if she'll . . .



anonymous that no one will ever have heard of it.

AUNT WILLA and Cousin Marjorie are on the Police Records. It happened thuswise. They were entertaining the Children in Anthony Hordern's on Saturday morning, and left their purses in the dressing room. A polite gentleman came up and passed the











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.



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 interval 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 like 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 "classic" 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 B.B.C.; but of this 15 per cent. 10 per cent. was devoted to utility, and the balance to sporting. The figures were, roughly, as follow:—

	Great Britain.	N.S.W.
Music	62 per cent.	45 per cent.
Utility	5 per cent.	15 per cent.
Educational	15 per cent.	10 per cent.
Sporting	0.5 per cent.	8 per cent.
Stunts or outside events	1 per cent.	6 per cent.

The balance on both stations for religious services, studio plays, Children's Hour, and sundries 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 175 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.

Can the man in the street realise what this means? 65,000 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 waltz; 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 too bad? I've got to go round to the library this morning, and I haven't much time."

"Didn't think you had time for reading. Mr. Fay," said the visitor.

"Nor I have," replied Mr. Fay. "It's a music library I'm going to—not a reading library."

"Didn't know such things existed."

Mr. Fay pointed to the table, on which was piled music for trios. "How do you think we get our programmes together, then?" he asked. "That's my music for today's sessions. I've just been arranging it in proper order. You have to fit things in, you see. You can't arrange a programme for a trio any old how, even if you are playing nothing but light music. Then, as soon as you have the music arranged, you fill in a form, showing the names of the pieces, and their composers, and their publishers. Then you send that down to the programme department, and I suppose they use it as a check for their payments of copy-

rights. Then you rehearse. Then you put it over the air. Then you take the music back to the library, and bring some more numbers out for next day. See?"

Mr. Fay 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 trios, 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, as actors say, heavy, scenes, he goes to the heavy drama section. When he wants music for comedy or lighter scenes, he goes to the light drama section. See? Then, occasionally, he needs 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. "Fill-ins,"

they call them. There they are on the shelves. Over here you have musical comedy selections."

He pulled them out on the counter. There were selections from all the musical comedies, from "Our Miss Gibbs" to "The Desert Song"; shelves and shelves of them. The next set of shelves was devoted to grand opera selections; and all the grand operas ever written must have been represented there.

"Almost half this wall," said Mr. Fay, "is devoted to overtures and introductions. They're in great demand. And here is the music of different nationalities. They have Oriental music, Egyptian music, Arab music, Spanish music, Indian music, American Indian music, Cowboy music, music of the South Seas, and they even have some Esquimau music. In fact, music to portray almost every conceivable nationality. You must think the name would be the only difference, but all this music differs in structure; and, you may have noticed, if you have been very much to the pictures, how a certain air will make you think of a certain nation. It isn't so much that the music is especially characteristic of its nationality as that you have become accustomed to associate certain types of music with pictures set down in the same country. Down there are the marches. These are the six-eights, and those are the two-four."

"How do you mean?"

"Well, six-eight time is more of a rollicking rhythm. Like this." He whistled a few bars of "Blazeaway March." "And two-four is like this." And he whistled the opening of "Colonel Bogey" march. Mr. Fay was getting interested. "You see, all music, besides having individual peculiarities of rhythm and melody, has character. This isn't always apparent to the audience, but it is to the artists and conductors, who know exactly the kind of rhythm and styles of composition which will produce the effects they require for their audiences. This music"—he waved his hands at the crowded shelves—"is all feeling stored up, waiting the right moment for its release."

"Music looks different behind the scenes, Mr. Fay."

"How?"

"Why, to people brought up to worship music and the classics, it seems strange to hear it talked of in slang-technical jargon, and to see it dished up like Sunday dinner, and cut to suit programmes, like so many lengths of ribbon for a dress."

"But isn't it always like that? You don't think the man who makes my ties"—Mr. Fay has a sportive taste in ties—"thinks as much of each tie he makes for me as I do? He turns them out in millions, and knows them by numbers, and talks all kinds of jargon about them. And he's probably sick of the sight of ties after business hours. But he'll probably turn his set on and listen to the music I play with as great an appreciation as I will wear one

of his ties. My business is his pleasure. His business is my pleasure. The world's made like that.

"Do you get sick of the sight of music, Mr. Fay?"

"Not often. I tell you, I sometimes feel quite sorry when our sessions over the air have to close. Which reminds me: I must go back to the studio soon."

Before leaving, Mr. Fay introduced a shy Miss Maling, who gave the following particulars: The library had been started by her father, who conducts orchestras, as a

sort of music-press, many years ago. Gradually it evolved into a lending library, and, with the inception of the moving pictures, began to grow in importance. When Mr. Maling went to New Zealand, he left his daughter in charge of the library, and it has progressed so well under her care that her father had given it over to her on his return. The library now held hundreds of thousands of compositions, the product of years spent in collecting. The firm's agents throughout the world keep in touch with all reputable publishers, and they were thus able to have copies of all the latest works sent to Australia in the shortest possible time.

"Conductors of picture theatre orchestras throughout the metropolitan area come in once a week for their music, and take away as many as a hundred numbers each every week," said Miss Maling, "so you can imagine what stocks we have to keep. Sometimes they all want the same thing, and we are kept busy writing it in manuscript for them. Broadcasting, also, has increased our business."

"And do you find it interesting?"

"Oh, yes; but you need a good memory. I know most of the pieces here, and their composers and their publishers. And it considerably helps your clients if you can remember what they had out before, and put your hand on the numbers they want."

"It's a pity you didn't come on Monday afternoon," said Mr. Fay, as he walked back along Castlereagh Street. "All the conductors are there on Monday afternoons. Absolute dog fight. You should go up and see it some time."

Thus one "man in the street" discovers where the music comes from.

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 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' of the past year. The work was often carried out 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 hours of effort. His labors 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 Aussies, whose honorary Federal 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 at a crucial time in the history of Australian broadcasting, will undoubtedly create widespread interest.

His first article will appear next week.

Early English Music

A PROGRAMME of early English music will be given from 3LO on June 18 by the Heidelberg District Choral Society, whose programme includes madrigals of the 15th century, and some old English children's game songs, including "Adam and Eve" and "Olive Cromwell." It is interesting to note that the part song, "Summer is acumen in," is the first song to be actually recorded as sheet music, all previous melodies having been handed down through the ages by "word of mouth." Miss Louise Dean (pianiste) will contribute some "Harpisichord Music of the Seventeenth Century," and Frederic Earp will be heard in baritone solos.

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

ON June 17 Mr. J. Howlett Ross will speak from 3LO on "The Work and Influence of the Returned Sailors and Soldiers' League of Australia, popularly known as the R.S.S.I.L.A.

SHORT-WAVE REFLECTIONS

OLD TIMER concludes his article on early amateur activities, telling how the transmitting "bug" first bit him.



A typical set of Q.S.L. cards of early amateur experimental stations.

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 switches, with innumerable switch points. There were variable condensers, which would make one 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 capacity when the plates were fully interleaved must have been considerable. There were any amount of little sparkling crystals covered in little glass cases, great big spiral inductances of copper tubing brightly polished, and near by these two big brass balls in a glass box, with some whitish substance at the bottom.

A heavily-built 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 telephones 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 bell 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 FL 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.

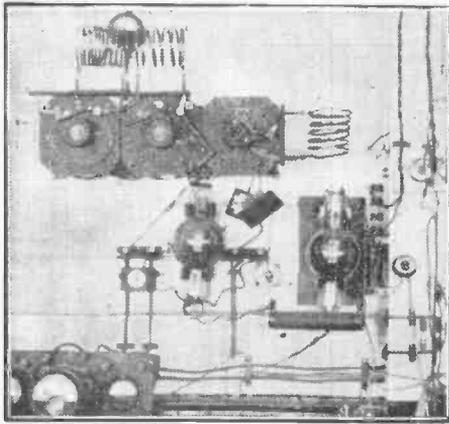
In connection with the old Poldhu station, an enthusiastic wireless amateur wrote to a London wireless journal, just after war broke out, sadly bemoaning the closing up of all amateur stations, and contributing a brief poem, which began: "Alas, Poldhu, gone is thy blaring bugle note." A fitting description 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 on the roof 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.



A Typical Amateur Station.

and no amount of moving that slider thing up and down the coil would do any good—it only wore the wire out.

Then I read something in the first real wireless journal that came into my hands about an ordinary telephone receiver being of far too low a resistance for wireless purposes, unless used with a telephone transformer. The transformer could be an ordinary Ford spark coil. Tremblingly, the flivver coil was hooked in between the set and the solitary ear-piece, and Eiffel Tower again sought at 8 p.m.

There she was, crackling away, weak, but audible, and in a flood of enthusiasm I tore up from the table to run downstairs to fetch the doubting family, and forgot to put the telephone down. The result was that a crystal set, over which many breathless crystal adjustments had been made, etc., was precipitated crash on the floor.

Try as I would, the sensitive spot on that crystal was not found again for days.

Having tasted blood, and heard my first signal, alone and unaided, it was a case of never say die. Everything comes to those who wait, they say, and a piece of galena came my way, bringing with it great joy, for not only was the Eiffel Tower audible, but many other stations as well. Then the transmitting bug began to bite as well.

Being introduced to a local wireless amateur, who was regarded somewhat in the light of a hero, because he heard the S.O.S. from the great liner Titanic, this gentleman was persuaded to listen to my receiver and identify the many stations heard. Bringing a pair of shining head-phones with him, marked 8000 ohms, he placed these in the terminals, played about with the slider on the coil a little, handed the 'phones to me, and said: "Hear that? That's an amateur over in Liverpool talking to another. . . . And listen to this—that's the Carmanic out over the bar, calling the coast station."

No doubt about it, those signals were certainly there, like a lot of busy bees, and just so much Dutch to me.

The hero departed, and after laboriously writing out the Morse alphabet, the job of trying to learn it began. Soon it dawned on me by constant listening that I could often make out a few letters when the stations sent a little slower than usual, and soon I began to make out whole call signs, and with the aid of the Marconi Year Book, could tell just what station I had heard.

What about trying to make a transmitter soon? It was only a case of asking the post-office for permission, and the license was given free in those days. That first transmitter was a formidable affair. A big helix—a 1-inch spark coil—a fixed gap—a key—and a terrific row from a snarling spark-

all to communicate with another "ham" three streets away. There was no late night key pounding in those days—the family seemed to want to sleep instead of the pleasure of listening to my QRM factory.

Then some other enthusiast 15 miles away came to see me, bringing a copy of everything I had punched out the night before.

This WAS long-distance stuff . . . things were humming, and as the listener had said I was a little on the weak side he asked me to increase the voltage on the spark coil. This was done until the spark threatened to be heard there directly without recourse to the intended wireless method. All went well until the local station, 10 miles distant, with his 5 kw. spark, called me suddenly and said: "— — — QRM, QRA, and QRT"—otherwise, "Who the — are you? You are interfering; stop transmitting."

Needless to say there was a prompt QRT, and the noise-box was left alone for a day or two. Shortly after this I heard the coast station call another "ham" and tell him to QRT also, and the "ham" had the temerity to come back at the coast station and say "What for? I have as much right to transmit as you have."

Could any 1929 "ham" imagine the results to-day if he were told the same thing and he answered likewise?

Came the war. P.M.G. men heaved a perfectly good "stick" out of the ground, sealed everything up, and took everything away to the last screw. ND then until the sizzling in Flanders had died down. Back again. after key-punching on the aerodrome and in

the air, the spark was a thing of the past, and the silent glowing valve held the place of honor, and the game started afresh—on 1000 metres!

The air services chivvied us off that wave—said that the Channel pilots couldn't very well work 'phone with Croydon when the voice of the Croydon operator was mixed up with the latest jazz record from some "ham" 'phone station. Down to 440 metres . . . and broadcasting started. Couldn't do anything at all until the BC stations closed down. The authorities slung us 200 and below, and the world knows the rest.

Yes, I am a dreamer. I dreamed the other night that it was 1926 and that I still had the old 250 watt Hartley on 32 metres; that there were no commercial stations to be heard below 200 metres; that when I called CQ down here in Sydney flocks of Englishmen on 45, Yanks on 39, South Africans on 35, and Japs, on 33 metres fell over each other to answer me.

And then I w o u p to find that it was 1929, and the wireless amateur world was crammed into tiny narrow spaces on my dials; that QRM hunk like the sword of Damocles over my head; and that the day of the old-timer had faded into the whispers of the past. Those DX cards up there on the walls show that those old signals once buzzed over the dials in freedom, and where they once abounded I find International Telephony Broadcasts.

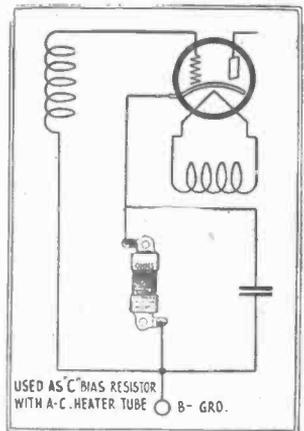
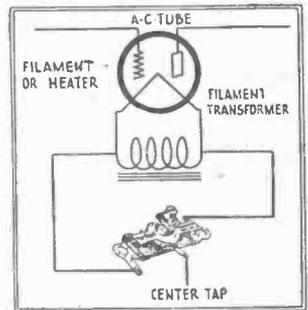
Such is the march of progress, and if you are not a "ham," dear reader, but a short-wave listener to stations like PCJ, GSSW, or W2XAF, remember that at those frequencies where you now hear telephony from the other end of the world pioneer amateurs once held forth with the hum and whistle of their puny signals; and mainly because those "old-timers" paved the way, short-wave telegraphy and telephony came to stay.

HUM CONTROL and GRID BIAS for A.C. Filament Valves

THE usual source of hum in the A.C. filament type valves is to be found in an unbalanced filament circuit or in the unbalanced condition of the tube filament. Usually the hum occurs in a filament circuit employing a centre-tapped transformer winding, or a fixed centre-tap resistance 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 Clarostat organisation there is no longer any excuse for hum in the A.C. 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 diagram. 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 valve filament.

When grid biasing is required, this may be readily obtained by a resistance drop introduced by a fixed resistance of proper value in the grid return lead to the centre-tap, as shown in the second diagram.



PEOPLE IN THE PROGRAMMES



ERNEST M'KINLAY.

MR. ERNEST M'KINLAY is a New Zealander. He sings. In the first place he was a pupil of Mr. Harold Browning, and made quite a name for himself singing 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 Zealand Kiwis," a concert party well known throughout the battlefields, and which appeared four times in Paris. Later he was in charge of the divisional concert party with the army of occupation in Cologne.

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 Gounod's "Faust" and Berlioz's "Faust." In Sydney with the Philharmonic Society he sang in "Elijah" and "The Messiah." The Sydney press, whatever that is, said his was the finest performance 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 skies, as Uncle Bas might say.

In 1925 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 Hislop and John M'Cormack. He also became associated with the "Not Forgotten" Association there, which organises entertainments and outings for variations on 15,000 soldiers who are not yet recovered from their wounds. He sang at more than 200 concerts of the association before many of England's big bugs. He sang at four 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 toured with the Westminster Glee Singers until the temperature went down to 40 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 WEAJ in New York.

"English 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 that artists make only one appearance 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 M'Namee, their foremost sporting announcer. It was remarkably powerful. I am not surprised that 14 people died during this description. They are very keen on sporting broadcasts in America. My experience is that you can't get a fee for broadcasting in America unless you join a sponsored programme party. These are run by firms advertising over the air, who generally give very fine performances; but I didn't like to hear them advertising goods after every programme. Of course, it's the easiest thing imaginable to sing from an American station—almost anyone may do it; but the stations themselves don't often pay performers. This

is a sharp contrast to the methods of the English stations, where fees are always paid, and where only highly qualified artists are allowed to broadcast.

ELSIE STEELE.

MISS ELISE STEELE left Australia to tour the world, and is now returned. Among other places, she visited London and New York. In New York, the "Musical Digest" 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 women 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 American critics.) "At her appearances in the Guild Theatre, she played Nardini's Concerto in B Minor with a delightful serenity of mood, and made the Brahms Sonata stand out as a portrait of transcendental inspiration."

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 portrait of it.



How the Boddington Broadcasters Broke Down

YOU probably have heard of the sad breakdown 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 session 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 wheel began to kick, and then he knew there was a puncture somewhere. As he was bringing the car to a standstill he saw the rim of his rear left wheel bowling along merrily on his right-hand side. It had become detached as the tyre deflated; but how on earth

it had managed to wriggle round the back of the car and race along on the right-hand side of the road Mr. Anderson is bothered if he knows. Anyhow, the wire wheel was bogged deep in the mud, and it was awfully hard to jack it up. Mr. Charles Lawrence directed operations, and when eventually a ponderous length of sleeper wood was wedged under the axle to hold it up, Mr. Lawrence

placed his foot against it "to see it didn't slip." "Very amusing," says Mr. Anderson. But when the spare tyre was focussed it wasn't full enough; so all hands were called to 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 attended to in quick time. Mr. Chas. Lawrence is a handy man to have on such occasions. Then, having promised to call the garage people that night the concert party proceeded by lonely ways and over grievous roots and tree stumps towards its destination.

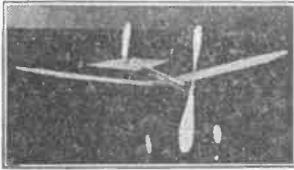


How to Make the Model R.O.G. 'Plane

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 smoothly 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.

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 secotone 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 carve—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. III.

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

(By the PILOT)

and an eighth-inch wide—and drill a hole near one end with a number 72 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 secotone, and bind on with strong cotton. When firmly bound, give binding a coat of secotone, 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 3/4-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 3/4-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.

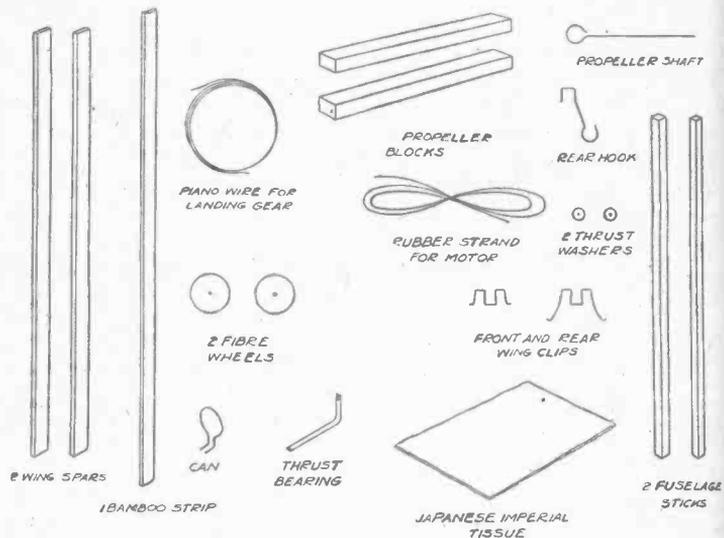
To construct the rudder, draw the outline of the frame, as shown in Fig. III., on a piece of paper, the exact size it is to be.

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 spout 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 other round metal and bend your strip over it.

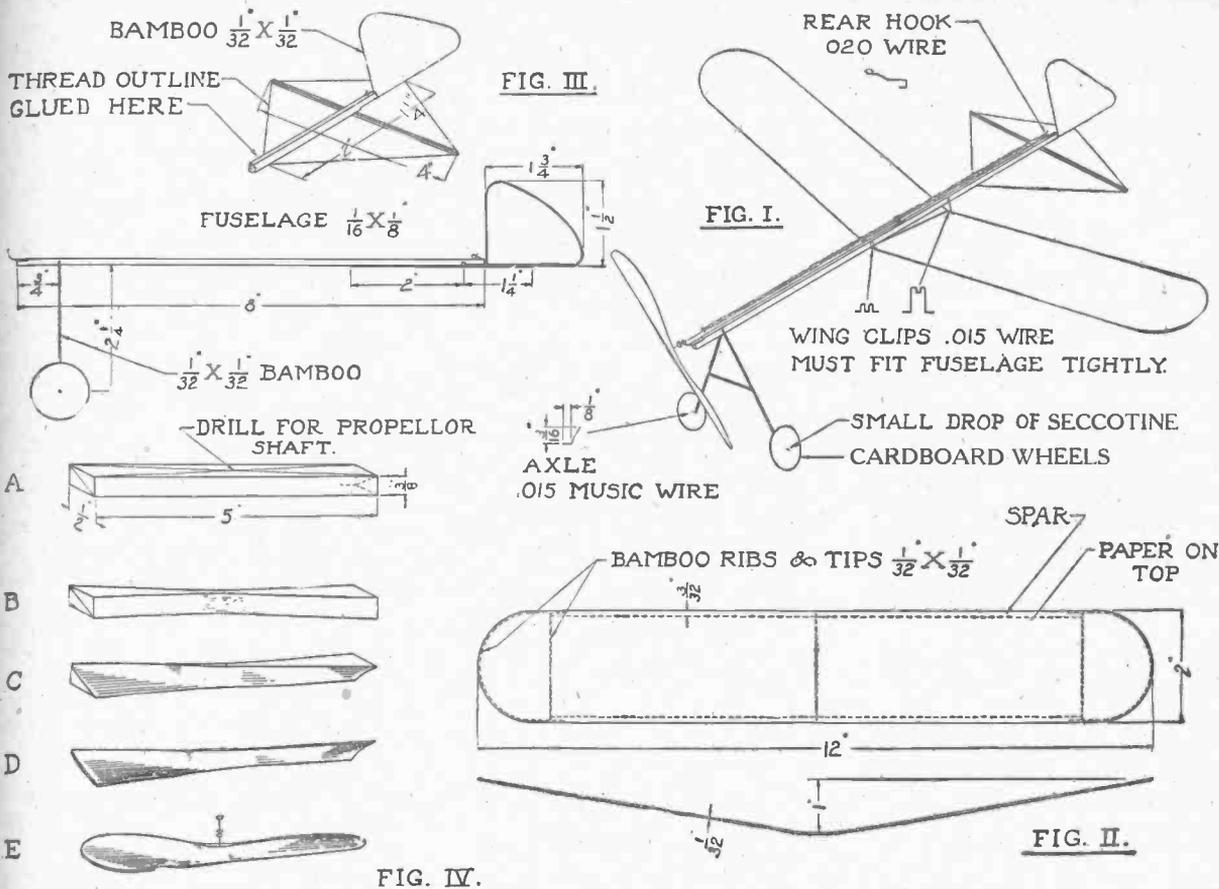
To attach the rudder to the fuselage, study Fig. III. With your knife, cut a small groove in the bottom of the fuselage to receive the projecting base of the rudder. Secotone the two together so as to form a continuous line with the under-side of the fuselage. Be sure that the rudder stands up perpendicularly.

The tail surface, shown in Fig. III, consists of a cross-rib of bamboo, secotined to 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. 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 hot 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 of the paper over the silk thread. Simply leave about 1-32-inch of paper extending beyond the thread on all sides. You can get a neat edge on the tail by placing a steel edge rule flat on the paper and trimming with a razor-blade.

The wing isn't straight, but is in the shape of a very flat V, as shown in Fig. I. To construct the frame, cut out a flat piece of sugar pine, 1-32 by 5-16 by 10 inches long. This piece is your two spars in one. Sugar pine bends easily when it is held over live steam. Bend your piece in the middle to the angle shown in Fig. II. After it is bent, split it down the middle, and you have your two wing spars. Be careful, when splitting it, to have the piece flat on the table. Follow a straight edge with your knife, making several cuts, going a little deeper each time. Finish your two spars to the dimensions in the drawings.

The wing tips, you'll notice, are two bent strips of bamboo. Bend them in one piece, and split them down the middle. Glue them to the spars according to the detail

shown in Fig. II. Be sure you have them down to size.

Next, finish and glue in place the bamboo ribs. Each one is just two inches long and 1-32-inch square.

You're ready, now, to bend two wing clips, 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

WHAT MAKES IT FLY?

Why does an aeroplane fly?

Those aviation enthusiasts who will be building the model aeroplanes described by the "Wireless Weekly" may wonder about that.

An aeroplane flies, not because it has wings like a bird, but because it hasn't time to fall down! It goes at such speed that the air—aeronautical engineers call it "air-stream"—keeps it up. A boomerang, thrown into the air, rises for a while and then starts to fall. It drops as soon as its speed lessens and gravity takes hold. A kite stays up as long as the wind blows past its surface—when the wind dies or the string slackens, it falls.

It is technically said that an aeroplane is supported by aerodynamic forces acting on its supporting surfaces. That means that moving air, flowing against the wing and tail surfaces, holds it up. The propeller pulls the 'plane so rapidly that the upward push and pull of the wind maintains the 'plane in the air, just as a motor boat can pull an aquaplane so swiftly that it will bear the weight of a man.

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 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 1/2-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.



Lillian Mitchell.



Pamela A. Sims.



Dulcie Deamer.



Muriel O'Malley.



Steele Rudd.



Glenn McGarrity.

Artists in the "All Australian" Programme to be broadcast from 2BL on June 18

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 Davis, 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 pianoforte. Miss Emily Darvall Paterson will accompany her own settings of three Australian poems. Sydney M. Garti will sing his own songs and monologues at the piano. Miss Nea. Hallett will sing a song by Mr. Edmond Samuels. Miss May Summerbelle will accompany her setting of "Love is a Fadeless Flower," by Victor, Daley. Other Australian composers represented are:—Decima Emery, Eva Sattler, Wren Sutton, Norbert Wentzel, Esther Kahn, Warwick M'Kenzie, and Warrington Reynolds. A selection of songs by Mr. Oswald Anderson, arranged for pianoforte by Charles Ryder, will conclude the programme.

On the literary side Mr. Steele Rudd will explain how or why he wrote "On Our Selection." Dulcie Deamer will talk of "Cavemen, Past and Present." Pamela Sims will recite from Ogilvie and Marjorie Quinn, and Annie Wentzel will recite two original poems. Myra Leard will speak a monologue by Phillis Mullis. Ethel English will tell some of her own fairy tales. A radio sketch, written by Miss Clair Byrne, will be acted by Clair Byrne, Myra Leard, and Andrew Sargeant. Assisting artists are:—Miss Gumpertz, violin; Miss Rosamunde Cornford, cello; Miss Lillian Mitchell, lyric soprano; Erik A. Thomas, baritone; Muriel O'Malley, contralto; and Warwick and Ella M'Kenzie, violinists.

We have to congratulate the Society of Authors and Composers on its vast array of talent. We must also congratulate the secretary, the energetic Miss Glenn M'Garrity, on her organising ability.

Mr. Varna's Production

NEXT Wednesday from 2BL Mr. Varna and Company will produce Mr. Bernard Shaw's "Arms and the Man" at the request of many listeners. The play is more remarkable nowadays for the wit of its characters than for any topical value it might have; as the idealism and romanticism which annoyed Shaw into producing it in 1894 no longer exist. In fact, they are so non-existent that

Mr. Shaw may live long enough to want them back again. Already he has retracted some of his sex-rationalisations.

The chief character in the play is Major Sergius Saranoff, in whom the dramatist has portrayed the more worldly shortcomings of the blasé 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 deposed gradually through the play by the influence of Captain Bluntschill, 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 forage than fighting.

Catherine and Major Petkoff 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 ruffian, 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, 1885, 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 during "At Homes" 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 satisfactory arrangements have now been made to ensure more complete productions from

the studio the following programmes have been set out:—

"Shakespeare's Early Days" on June 18 through 2FC. (Producer, Gertrude Boswell.)

"Arms and the Man" through 2BL on June 19 (H. W. Varna).

A repeat performance of "The Mutiny of the Bounty" through 2FC, on July 1 (C. C. Faulkner).

"Tea for Three" through 2BL, on July 1 (H. W. Varna).

"My Lady's Dress" will be put into rehearsal by Miss Lucille Bruntnell for July 11 through 2BL.

In addition to these, "Spread Eagle," a modern American play of a very forcible type, was broadcast by the Duncan MacDougal company from the Toy Theatre on May 29 through 2FC.

Humorists I Have Met

MR. C. N. BAEYERTZ has already given three vastly entertaining talks on humorists he has met—Mark Twain, Bernard Shaw, and O. Henry. Mr. Baeyertz is a polished speaker, with very exceptional vocal technique, and a keen sense of the vis comici.

His talk on June 11 will be of Frank Anstey, the brilliant author of "Vice Versa," who was for many years a prominent contributor to "Punch." During the causerie, Mr. Baeyertz will read Anstey's witty satire, "At the French Play."

On June 20 the subject will be the famous Canadian wit, Stephen Leacock. Then follow Schnitzler, the distinguished Viennese dramatist; Frankfort Moore, author of "The Jessamy Bwde" and "According to Plato," whose witty platonic affection epigrams will be given; H. L. Mencken, the editor of the "American Mercury," and author of many iconoclastic works. Mencken is a master of wit, irony, and invective.

It is a curious circumstance that so many humorists have followed callings that one would suppose could have afforded them but scant opportunity for the display of wit or humor. Lewis Carroll was a mathematical coach at Oxford, and it is said that when Queen Victoria, charmed with his "Alice" books, ordered everything that he had written, the great little lady received, in the fulness of time, a learned work on the differential calculus, and another treatise on the binomial theorem.

Kenneth Graham, the author of "The Golden Age," that most fascinating and humorous of children's books, was secretary to the Bank of England. Charles Lamb was a clerk in the India office, and Leacock is Professor of Political Economy at the McGill University.

SESSIONAL NEWS



MISS VARLEY'S SESSION



THE 2BL Women's Sports Association never ceases from surprising us with some new undertaking. This time it is dancing classes. Mr. Carl Thomas has been approached to arrange for special 2BL dancing classes; one on Friday afternoons, from 2.30 to 4 o'clock; the other on Monday evenings, from 8 to 9.30 o'clock. The evening class has been included to allow of members bringing their men appurtenances along (if desired, Miss Varley says!).

During each class the fee will be three and sixpence per lesson per member, a considerable reduction of the ordinary half-guinea fee. The afternoon classes last winter were considerably successful, and the committee is hoping for an even more popular season this winter.

There is also a demand from several parents for a children's dancing class every Saturday morning, and arrangements have been made. Mr. Carl Thomas has reserved his studio in Rowe Street from 9.30 to 10.30 every Saturday morning for boy and girl pupils, for the fee of two shillings and sixpence per lesson. All members of dancing classes must possess a 2BL Women's Sports Association badge, which costs two shillings. Classes open on Friday, June 7, Monday, June 10, and the Saturday class will commence when there are eight pupils.

Anyone wish to join these classes? Write to Miss Gwen Varley, c/o 2BL, Bligh Street, Sydney.

Annual Meeting

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 repeat that all members of clubs and their friends are invited, although how 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.

COOKING SESSIONS



MRS. CRANFIELD. (Week-days, 11.30 to 12 noon; Saturdays, 11-11.30 a.m.) Next Saturday Mrs. Cranfield will speak of "Some ways of serving grape-fruit," which is becoming very popular in Sydney just now. The grape-fruit talk will be garnished off with a special dissertation on "Sauces of a kinds." On Wednesday Mrs. Cranfield will give recipes for some quickly-prepared savories.

We didn't know there were 180 different ways of cooking rabbit, but Mrs. Cranfield has found an old Continental recipe-book,

which gives 180 different rabbit dishes. Mrs. Cranfield is trying the most likely ones out in her own oven, and will soon be in position to present the results of her investigations to her listener friends.

Mrs. Cranfield has received the compliment of an autographed copy of the Wertheim (Mrs. MacLurean's) Cookery Book, which she prizes as a bibliomaniac might prize a Caxton first edition. Women are 'k' that.

And it is also of interest that Nurse May speaks on infant welfare on Mondays and Fridays; and that Nurse Parry, of the St. John Ambulance, speaks on first-aid every Tuesday during this session.

MR NORMAN'S SESSION



"WIRELESS WEEKLY" went to press too soon to delete Mr. Kelso King from the opening ceremonies of the 2BL Boy Scout session last Tuesday. We now make our bow to SIR Kelso King.

Latest information is that the electrically operated ship, Brunswick, will arrive in Sydney on Thursday, June 20. 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 queries are about air matters, and in his ballot recently most votes went for Mascot as the next place for investigation. 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 handicrafts at Grace Bros. The exhibition was opened in the afternoon by Mrs. Evans, wife of Admiral Evans, our new naval commander. Twenty-seven packs are represented, and there are 400 exhibits. The exhibition will close today, Friday.

Captain Stevens

DURING the mornings of the week, Captain Stevens will take up again his series 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" sermon will be on "Lies and Liberty," which maps out the trail we must follow to make democracy "more than the grandest of our dead dreams."

MR. FERRY'S SESSION



NEXT Saturday Mr. Ferry 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 racing talks from 2FC on Tuesday, Thursday, Friday, and Saturday mornings will be bursting with the latest information about horses engaged in the big events of the spring.

A.B.C.

New Company to Take Over Broadcasting

AS we go to press, news has been received of the acceptance of the Australian Broadcasting Company's tender for the National Broadcasting programmes. Mr. Stuart Doyle, Chairman of the new Company, made the following statement to "Wireless Weekly" —

"We don't intend to attack broadcasting in any other manner than one which will place it on a high and elevated plane. On the present number of licensed listeners-in, 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 rapidly to increase, and ultimately to double, the number of license holders. We feel that our methods will win the goodwill of all listeners-in; and intend to ask them and the trade to realise that the more people they can interest in becoming listeners-in, the bigger and better will become the programmes.

"This is possible because profits are strictly limited by constitution of our Company, and the terms of our tender. Ninety per cent. of revenue received by us from additional licenses will be put into programme improvement. We are completely optimistic of getting the wholehearted co-operation of everyone associated with Broadcasting in our endeavors to place it on a National plane."

Mr. Doyle stated that Mr. George Saunders (Uncle George, of 2GB) will be associated with the new Company. The only interests represented in the Australian Broadcasting Company are: Union Theatres, Limited; Fuller's Theatres Limited; and J. Albert and Son.

Wireless Weekly

Incorporating "Radio in Australia and New Zealand."

FRIDAY, JUNE 14, 1929.

MODEL AEROPLANE CONSTRUCTION

AT the back of the model aeroplane building programme that "Wireless Weekly" is sponsoring for the Model Aero Club of Australia, which it is proposed to form among 250 listeners, there is a story that traces far into the past. The story is the story of aviation, for it was through the model aeroplane that man learned to propel himself through the air.

Nearly all the distinguished aircraft designers of the present day are model plane builders. Yet the history of model building is much older than the oldest living aviator. It goes back to the days of man's earliest attempts to fly.

Two thousand years ago the Greek poet sang of Daedalus and Icarus. Daedalus, they said, made wings of wax for his son Icarus, giving them to him with a warning that he must not fly too near the sun. Icarus did not heed the warning. He flew close to the sun, his wax wings melted, and he fell into the sea.

The Norsemen and the Incas had similar legends, and here is a story that Simon the Magician flew over Rome several times before he fell into the Forum. But these are myths.

Leonardo da Vinci, great Italian painter and sculptor, was the first model builder of whom we have authentic record. In 1500 he made a study of mechanical aircraft, and succeeded in making several models that actually flew! After da Vinci came men who experimented with ornithopters—planes with flapping wings—until George Peacock, of Bristol, demonstrated in 1840 that a kite can carry a man. A little later the Englishmen, Stringfellow and Henson, built the first self-propelled, power-driven, heavier-than-air machine to sustain itself in the air by its own power.

In 1891 Langley made the first rubber-driven models, and demonstrated the possibilities of flight. Then came the Wright brothers and the first practical aeroplane—really an enlarged model plane. Since then aviation has advanced with such swiftness that the world is still trying to catch up.

Thus model aeroplane building may be said to be the basis of successful aeronautics, and leaders 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 Liedertafel Programme

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

Schubert Pianoforte 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. Minor," "Moment Musical C Sharp Minor."

University Symphony Orchestra

CONDUCTED by Professor Bernard Heinze, 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.

Pavlova's Orchestra

BALLET music by Pavlova's orchestra, conducted by Efrem Kurtz, will be broadcast by 3LO on Saturday night, June 15.

Philharmonic Society's Concert

PROFESSOR BERNARD HEINZE will conduct the Philharmonic Society in a programme to be broadcast by 3AR on Tuesday evening, June 11.

The Strad Trio

CECIL PARKES (violinist), Myra Montague (pianist), and Frank Johnstone (cellist) well known as the Strad Trio, will broadcast several recitals from 3LO and 3AR during June.

The Jedal Trio

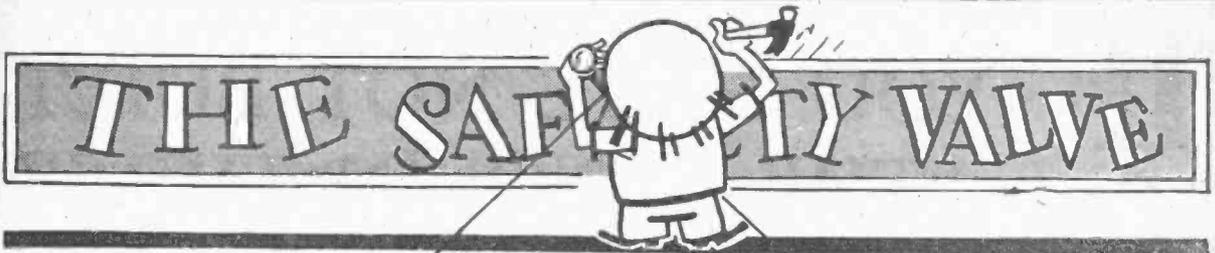
ALVA and EDNA HATTENBACH, daughters of the celebrated 'cellist, Professor Hattenbach, of the University Conservatorium; and John Simons, pianist, who have distinguished themselves as the Jedal Trio, are broadcasting a series of recitals from 3LO and 3AR during the month.

Choral Music

AN excellent programme of choral music will be given from Wesley Church on June 16, and broadcast by 3AR under the direction of William G. James. The choir will be heard in "How Lovely are Thy Messengers" (Mendelssohn), "Lead, Kindly Light" (unaccompanied), and "The Inflammatus" from "The Stabat Mater," with Mademoiselle Safo Arnov as principal soloist.

BUILDING A SET . . . No. 5





No Need to Nurse Queensland

Dear Sir,—In "Wireless Weekly" (24/5/29) there was an article under the heading of "Carrying the Baby." I, therefore, ask you to kindly allow me a small portion of your valuable journal, "Wireless Weekly," to express my opinion on the subject of the use of what belongs to other States to supply West Australia, Tasmania, and Queensland with a better broadcast service. As far as West Australia and Tasmania are concerned, I say, yes, assist them. But Queensland, not there are thousands of Queenslanders who will agree with me when I say that we are capable of increasing our own license numbers. But, before we can do so, we must have the station under far more capable management than we have at present. Someone who 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 signing himself "Easy to Please" told us that he has had a license for three years, and that we have had the same artists, same old orchestras, dished up under different names, and that he has heard people say they are out of work wharf lumpers, and that the station is keeping them. Well, I don't know what they are, but I'm sure that the wharfies would shudder if they were classed with the so-called artists of 4QG. Anyway, I agree with "Easy to Please." They are supported by 4QG, and have been for over two years. Nuff said.

What we require in Queensland is a new management for 4QG and not assistance from the other States. I am now listening to 2UE, and their programme is a credit to them, although gramophone records are included. But, if 4QG only put on the same class of programme there would be an increase in licenses. Take 5CL, Adelaide, with their 23,186 listeners. They get a far superior class of entertainment weekly; we have 24,627 listeners, and we get the same artists dished up every week. "Something to Cry Over" ("Wireless Weekly," 24/5/29) is correct when he states that we get sob-stuff four nights per week. It is not so much the sob-stuff—it is the same "would-be" artists week after week. Never a change! What would the public do to a manager of a vaudeville company who put on the same artists week in and week out, with the same dry and washed-out items? Why, he would be hanged—and I know, having managed a vaudeville company all over Australia; but we had artists, not what the management of 4QG class as artists.

What we require is a change of programmes and artists, not what belongs to others. The reason that Melbourne and Sydney have such a big number of listeners is because the stations consider the man who pays for the upkeep of that station. And if our local management were to follow in their footsteps, the number of listeners would increase in leaps and bounds. In the last two years New South Wales has increased at the rate of 20,000 per year. Why? Because the man who pays his 24/- per year gets what he wants, and his next-door neighbor purchases a set, and it goes on

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—your safety valve. The editor assumes no responsibility for statements made by readers and published on this page, as opinions of correspondents do not represent our editorial policies or beliefs. Anonymous letters are not considered.

and on. The same could be done here, but who knows why? Only the management of the station. Let them look for new artists, and when that is done there will be a far bigger sale of wireless sets in Queensland.

No, sir, we do not 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—then see what happens. We now get about 62 hours per week, and it is only just a programme. 3LO gives about 79 hours, and with the time a programme worth listening to; and there is 6WF, with only 3767 listeners, and it gives about 56½ hours of interesting items.

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,—Herewith a Broadcasting Litany:—

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

From male elocutionists 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 Dance,"

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

From the following gramophone records: "The Wembley Tattoo," "In a Clock Store," "The Whistler and his Dog,"

From vicars of Christ who are aware (all too aware) of their unseen audience, From items by the Wooprah Citizens' Municipal Band,

From "Silver Threads Among the Gold" in any or whatever form whatsoever, played, hummed, or only mentioned, From everything else that I've forgotten to mention—

The Good Lord Deliver Us.

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

Yours, etc.,

CAMPBELL NORTHCROFT.

North Bondi.

Programme Suggestion

Dear Sir,—May I correct Mr. G. 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 disgust, at what I considered 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 meekly inquire from what station am I to receive the suitable programme on Sundays. I am positive neither 2FC nor 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 gluttons who gleefully monopolise the air on Sundays. Our friend Vernon, with characteristic impudence, airily asserts that I and my kith are well catered for during the week and part of Sunday. Let anyone with an unbiased mind sufficiently broad enough to judge perouse programmes of 2FC and 2BL over the past few weeks, especially 2FC's last week (10th to 16th 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 amiably 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 cheek it is to assume that the majority of "radiotes" 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 grumblers:—Rev. F. H. Rayward, B. Gibb, C. Lawrence, W. Baynes Co., Scott Alexander, C. P. Conigrave, W. Varna Co., an educational session (night) once a week; a dance night once a month at least (either old-time or modern), also a few other items of interest. Sack half the singers (we have enough good, bad, and indifferent to supply a dozen stations). Sprinkle the aforesaid sparingly with classics, and lo! an increase in the number of licenses.

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

Naremburn.

1929.

Brisbane Calls Again

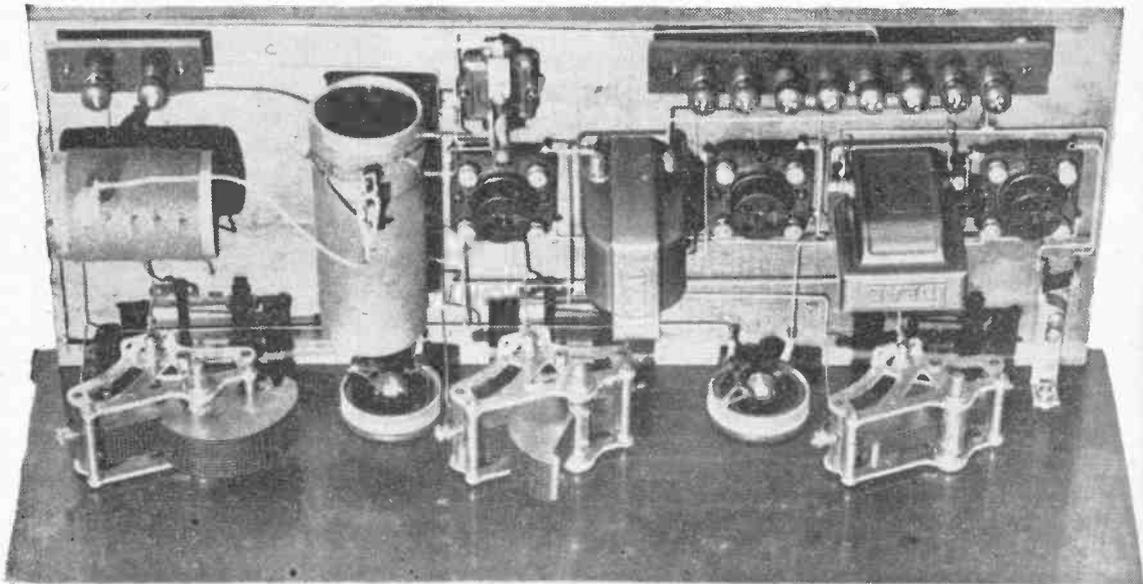
Dear Sir,—I would like to endorse the remarks of "Something to Cry Over" (24/5/29) re 4QG. I have been listening in ever since there was any broadcasting,—starting with a crystal and increasing same until at present I am working three valves with a trap. We in Brisbane have a grievance as our station is absolutely up to putty. As a matter of fact the only thing we listen to is "bedtime stories," which is the only decent session we get. Immediately this is finished we get the south, preferring 2FC to any of the others. No offence meant to the other big southern stations.

Yours, etc.,

Brisbane.

DISGRUNTLED.

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



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J.H., Toowoomba, Qld.

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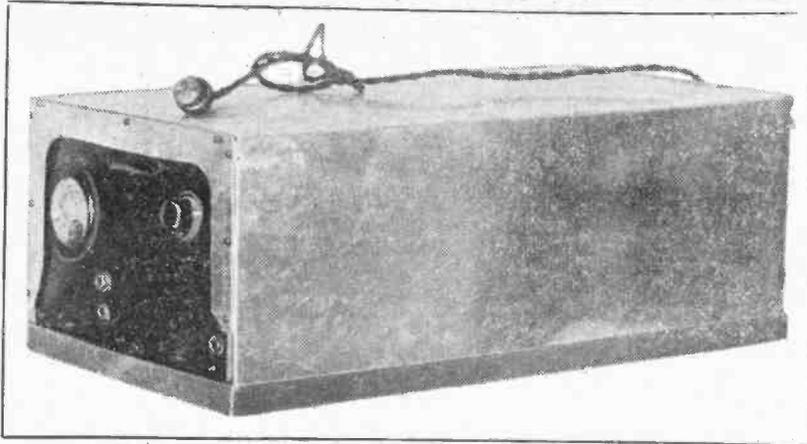
SYDNEY
25 New Royal Arcade,
near
Palace Theatre.
'Phone, M6138.

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.

Extraordinary amplification of distant signals is obtained on this amplifier.



The technical photographs in this article are by Walker Studios, King Street.

Dancers in a country hall may step to music from KGO or 5SW when it is used.

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 constructional 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 it is used with is toned down. In conjunction with an inexpensive "pick-up" arm, it will convert an ancient gramophone into a modern machine comparing 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 if not 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 source 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 the immediate results of cutting off most of the "side bands." The next cause of distortion may lie with the detector valve, and may be produced by oscillation or overloading by too much R.F. amplification. Thirdly, the audio amplifier is prone to distortion due to uneven amplification of different frequencies; and lastly the final source of distortion may be the loud-speaker itself, by an uneven response to various frequencies.

DISTORTION ELIMINATION.

It is not difficult to get at this trouble from beginning to end, and the process of distortion elimination starts with a good power amplifier. A suitably designed heavy duty amplifier will give the user no fears of distortion from an audio source. It is interesting to note the improvement over the regular audio stages by using the tuner end of an old receiver, and substituting the power amplifier.

The amplifier illustrated is designed and built by that enthusiastic experimenter, Mr. J. B. Martin, who, it will be recollected, collaborated with the writer in the Marnock De Luxe Five, and other receivers.

"HAPPENED."

It was not the result of a "brain-wave" but just "happened," as a sheer necessity, and was built with apparatus to hand with very gratifying results. Mr. Martin has been paying considerable attention of late to high quality amplification, which may be noticed from the receivers bearing his name; but it was decided necessary to have a heavy duty amplifier available, which would operate entirely from the alternating current power supply, and which may be instantly connected behind any preceding apparatus.

A point which may be of interest to short-wave listeners is that this amplifier is regularly used with a four-valve short-wave receiver, employing 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, G5SW, and PCJ.

KGO AND G5SW.

There is not the slightest trace of distortion on KGO on his 23.38 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.

All this is at more speaker volume than the average "fan" will ever need, but it provides an interesting comparison of amplification methods.

YOUNG "POWER HOUSE."

The Martin Experimental Power Amplifier will seem a formidable piece of apparatus to many readers from the photographs, in fact, quite a young "power house," but, judging from a 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.

The man with an ingenious turn of mind and a flair for naking his "own baby" movies, should keep this article by him, if he ever thinks of making his home "talkies," which are certain to be very popular in the near future. This amplifier would be ideal for the purpose with a small screen and two dynamic reproducers.

A.C. SUPPLY.

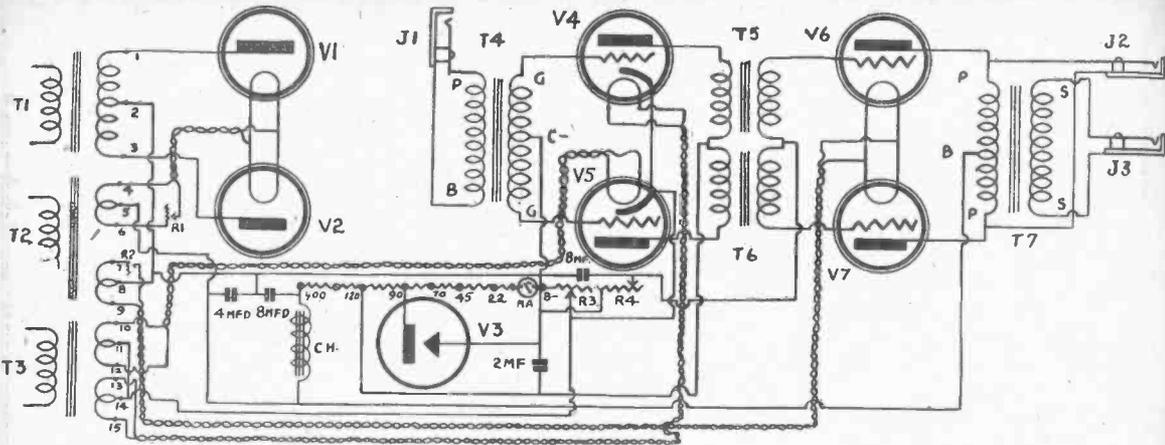
As the whole amplifier derives its filament and plate voltages from an alternating current source, suitable transformers for the various supplies are necessary, and unless the would-be constructor knows just what he is doing, the writer does not recommend an attempt at home construction of these items. 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 high-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 32-metre transmitter, using two UX210'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 UX281 rectifiers, and the other is for the filaments of two UX210 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 Igranic 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

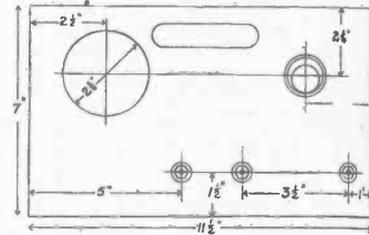
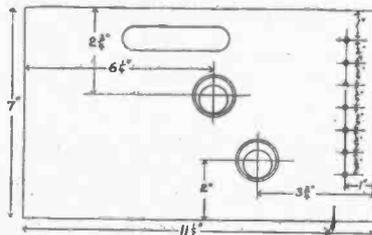
The final power transformer gives the filament supplies to two UY227 Independently Heated Cathode valves, in an intermediate push-pull position in the amplifier. There are two 2.5 volt centre-tapped windings from this transformer, one for each valve, and it must be mentioned here that there would be no disadvantage in using one centre-tapped winding for the two. Adjacent to these two I.H.C. valves, there is provided a UX874 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 intervalve 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 AF5C and the final output transformer from the 210's a Ferranti OP3C. 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.

SIGNAL INPUT.

The signal input to the amplifier is taken to the primary of the AF5C transformer, and there are two outputs from the UX210's. One is taken from the secondary of the OP3C 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 less cramped. 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.

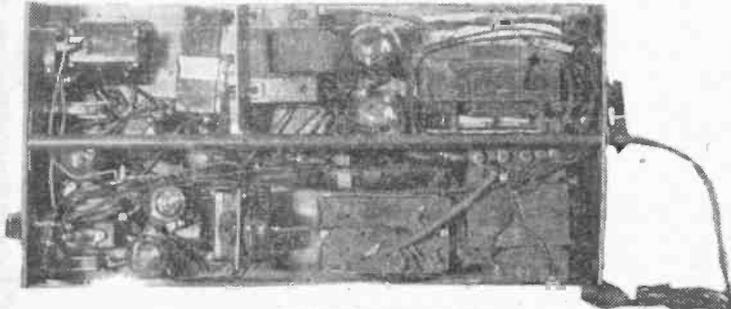
No fears need be entertained for an all-electric power amplifier, which may be used with a short-wave receiver, on such stations as KGO and G5SW, without any trace of A.C. hum. To make the shielding as complete as possible the baseboard carrying the whole layout, fits into an aluminium tray, and when 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 in. and fits snugly into the sheet aluminium tray, which is cut from 14-gauge sheet, 24 x 13 inches. The edges are cut at the corners, and turned up for half an inch, so that the baseboard just fits inside. The two Diecto end pieces for the milliammeter, jacks, and rheostats measure 12 by 7 by 3-16in., and

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 UY227's, and the grid bias. The B supply resistances used by Mr. Martin in this amplifier bear a trade mark "Kroblak," and will pass 100 milliamps at 425 volts. The grid resistors are variable, as indicated in the diagrams, and are 2000 ohm Emmcostads. The milliammeter in the B negative is a Weston instrument, reading 0 to 100 milliamps, and is invaluable as an overload indicator.



A Plan View of the Amplifier.

How to Make a Model Plane

(Continued from Page 11.)

The propeller shaft is shown in drawing E, Fig. IV. Bend it from a piece of .015 music wire about 14-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 secotone 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. The only requirement is that the gear must hold the front end of the plane at least 24 inches off the ground, so that the propeller will turn freely without striking the ground. For the axle, bend a piece of .015 music wire L-shaped, and secotone 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 secotone 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 hook, 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 upward and stall, set the wing back. When it glides gradually to the floor, it's properly set.

If you want to reduce the circle in which the plane flies, bend the fin—you do this by breathing on the rear end of the rudder 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 finger—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.

(Next week you'll learn how to improve the flying qualities of your Baby R.O.G., and how to make it loop the loop!)

PROVING RADIO CLUB NEWS

Executive Report

THE P.R.C. country organiser (Mr. Simons) has made good progress, in his report. Two groups have already made a start in Queensland, one 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, it is up to all Queensland radio fans to get going, and lend Mr. Neale a hand. Don't forget the address: Annerley

Road, Annerley, South Brisbane. Phone, J1796.

Further, Mr. S. J. Tesse, Police Station, Woolonga, and Mr. E. L. W. Roots, of Merbin, via Milkura, both of Victoria, would like to hear from anyone wishing to become members of a group in their districts. We would be pleased to hear of any person who resides in Melbourne, who could organise a division of the P.R.C.

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

Botany, City 2, Punchbowl, and Auburn Groups are still open for membership. All information re the club can be gained by getting in touch with C. Y. Hook, 29 Blairgowrie Street, Dulwich Hill. Phone, Pether-sham 3272. The executive also decided to call a conference of other clubs, whose objects are similar to our own, with a view to co-operation.

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.H.R., is going to lead a party of members over the transmitting station of A.W.A. at Pennant Hills. The date of this trip will be published when arrangements have been finalised.

Skipper Francis

A UNIQUE figure in the musical world is "Skipper Francis," who will be remembered as the author and composer of the popular song, "Australia Will Be There." The skipper will be on the air from 3.0 on June 18, when his fine resonant baritone voice will be heard in some robust numbers.

:-: How to Service Radio Sets :-:

In a recent article of this series, I gave a chart of A, B, and C voltages for UX tubes. But as a service man is likely to strike Philips valves very often, I give below a table for Philips:—

PHILIPS D.O. MINIWATTS.

Type.	A volts.	Grid bias at anode volts, of—			
		80	100	120	150
A409	4	4.5	6	7.5	9
A415	4	1.5	3	3	4.5
A425	4	1.5	2x	2.5x	3
B403	4	—	15	24	30
B405	4	9	12	15	18
B406	4	6	9	12	15
B409	4	4.5	6	7.5	9
B443	4	—	9	12	15
A609	6	4.5	6	7.5	9
A615	6	1.5	3	3	4.5
A630	6	—	1.5	1.5	1.5
B605	6	6	9	15	18
C003	6	—	15	24	30

PHILIPS A.O. MINIWATTS.

M415	4	1.5	3	4.5	6.0
E424	4	1.5	2	3	4.5
E430	4	1.5	2	2.5	3.0
E442	4	—	—	—	.75 at 200
B443	4	—	—	—	15
F109	1.5	4.5	6	7.5	9
F209	2.5	4.5	6.0	7.5	9

To be obtained by means of a potentiometer.

TRANSFORMER SERVICE

AUDIO transformers undoubtedly have given more trouble in radio sets than any other part of the apparatus. The writer doesn't know for sure, like a lot of others, but his theory is that electrolosis causes a chemical action in the impregnating

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 this or these weak spots, and fuse the wire, causing an open primary.

Whatever the cause, open primary windings are about the first things you want to test on a dead set with good batteries, or one on 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 5 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 worth 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 of the case, and install a small, but first-class, transformer, bringing the leads out on to the binding posts, and filling

the shell with ceiling wax from the top of old B 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 to give good service, we are making this a lengthy article.

There are various methods for coupling output, input, audio circuits, such as transformer, resistance and condenser, 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 up to the point of saturation distortion, and this evil is more evident in transformers than the other mediums.

At one time it was not known how to design the proper proportion of flux and wire to amplify a broader band of audio frequencies without saturation on some of the frequencies, and we 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 have an input and output voltage undistorted 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 or three times as high, etc.

Old-type transformers 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 distorted result.

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.

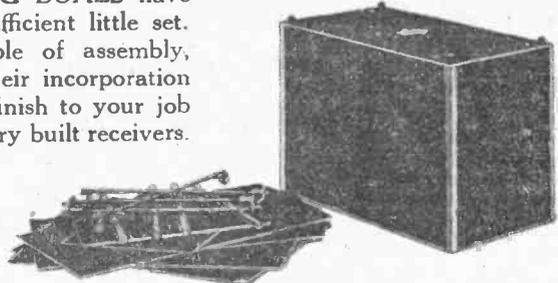
RADIOKES well-known Marco Kit has been chosen as the most suitable for use with this A.C. Set, which promises to become very popular. Inferior parts cannot be successfully employed in the fabrication of a successful electric powered receiver.

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



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

Any of the best City, Sub-urban, 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 Albany Lismore

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 Champeve Enamel in the age-old triangular designs of the Aztec Indians. 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

PROVING RADIO!

No. 25 Now that we understand the action of the Thermionic Valve, and the principles underlying rectification, we learn how the valve may be used as a half wave rectifier, and how two valves may be used as a full wave rectifier. In addition, we are told how the rectified current is smoothed out by means of filters.

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 pass. 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 the half cycle above the line is that which is made use of.

The method of doing this, and its reason, should be obvious if the student thoroughly read 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 filament and the plate, as long as the plate remains positive.

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 flow, because one moment the current would be negative and the next, positive. The current would only be caused to flow in the plate circuit whilst the plate was positive.

Our resultant wave, however, would be only intermittent. As each negative half cycle was being received, no plate current could flow, and there would be gaps in the plate current flow. Our next object, then, is to filter the current resulting from rectification (which we term Intermittent D.C.), 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." By the aid of additional apparatus (which does not con-

cern 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-cycle.

You know that before a current of electricity will flow between two points, these points must be at opposite polarity. If the electricity is required to do work, two connectors—one from positive and the other from negative must be used. If only one wire is used, say, across the battery, the electrons will flow from negative to positive (as the negative pole has a superfluity of electrons), and cause what is known as a "short." This merely means that the electrons will travel round the shortest path offered in order to reach the point of lowest potential, i.e., the positive pole. If we require the electrons to do work, the instrument on which the electrons must operate before they pass through to the positive pole must be placed in between the negative and positive poles. The electrons, on their way through, will operate the apparatus.

Prove this by placing a piece of copper wire across a four or six volt accumulator for a fraction of a second. You will see that there is a large spark as the last contact is made, and this is because the electrons are travelling at an enormous rate. Do not leave the contact on long, as it will soon ruin your battery. If the wire used is very fine, the electrons will cause it to heat up, become red hot, and finally burn right out. If the wire is thick (i.e., of heavy gauge), the work that would be done by the electrons is done inside the cell itself. The reason is that the finer wire (if a considerable length was used) would set up a resistance to the path of the electrons. Thus the cell is suddenly discharged, and the practice of frequently watching the spectacular spark will run the accumulator down in a very short time.

Now, in A.C., the two wires (as in D.C.), carry current of opposite polarity. In D.C. no change takes place, but in A.C. one wire (call it wire No. 1) carries positive, and wire No. 2 carries negative polarity for a minute fraction of a second, then the current reverses its direction, and No. 1 wire carries negative and No. 2 wire positive. The speed of reversal in current is measured in frequency, and the usual rate of change is about sixty cycles per second.

Now, in a "Whole"—or sometimes called, "Full"—Wave Rectifier, the first rectifier acts in precisely the same manner as the Half Wave Rectifier which has already been discussed in this and other issues.

The other rectifier is so placed that it rectifies the positive half wave of the current that is passing through one wire (whilst the other remains negative); then, as it becomes negative, the other wire becomes positive, and is rectified by the other valve, causing full wave rectification. It would, perhaps, be advisable to make this a little clearer.

Imagine a wire (called wire No. 1) to be

carrying positive polarity. When used with a rectifier (called rectifier No. 1) a current will flow. Immediately the current alternates, wire No. 1 becomes negative, and no current will flow, but if another rectifier is used (Rectifier No. 2), a current will flow. Thus a constant current is kept up, and the result is immediately pulsating D.C. You will note that full wave rectification does away with intermittent D.C., and almost completely rectifies 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 doing likewise, 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 on 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 my readers who have not heard of a "B" battery eliminator. For the sake of those who have not, I must explain that the "B" eliminator is a device used to step down (by means of a transformer) the A.C. to the required voltage, and to rectify the resultant voltage (by means of a rectifier), thus giving pulsating, or "ripply D.C.," and, to smooth out the D.C. by means of 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 our rectified 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 the top, or "peak," of the half cycle, and as 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 electrically-operated 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

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. 7.15: Studio music. 7.25: Investment market; mining sharemarkets; metal quotations; wool sales; breadstuffs markets; inter-State markets; produce markets. 7.40: Studio music. 8.0: "Big Ben." Close.

MORNING SESSION.

Announcer: A. S. Cochrane.
 10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.45: A talk on "Home Cooking and Recipes," by Miss Ruth First. 11.0: "Big Ben"; A.P.A. and Reuter's cable services. 11.5: Close.

MIDDAY SESSION.

Announcer: A. S. Cochrane.
 12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Summary of news, "Sydney Morning Herald." 12.10: Rugby wireless news. 12.13: A reading. 12.30: Studio music. 1.0: "Big Ben", weather intelligence. 1.3: "Evening News" midday news service; Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Popular studio music. 2.0: "Big Ben." Close.

AFTERNOON SESSION.

Announcer: Laurence Halbert.
 Accompanist: Ewart Chapple.
 2.30: Programme announcements. 2.32: The Book Lovers' Corner. 3.0: "Big Ben"; popular music. 3.30: Mavis Dearman. 3.37: Studio items. 3.45: A reading. 4.10: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.15: Mavis Dearman. 4.22: Studio item. 4.25: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.35: J. E. Patterson will speak on "Our Trout Rivers." 4.47: Stock Exchange, third call. 4.49: Studio items. 5.0: "Big Ben." Close.

EARLY EVENING SESSION.

Announcer: A. S. Cochrane.
 5.40: The chimes of 2FC. 5.45: The children's session, conducted by the "Hello Man"; letters and stories; music and entertainment. 6.15: The Farmyard Five, from Kookaburra Gully. 6.30: Dalgety's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Rusby wireless news. 6.55: Late sporting news, by the 2FC Racing Commissioner. 7.0: "Big Ben"; late news service. 7.10: From Farmer's restaurant, items by the Dance Band.

EVENING SESSION.

Announcer: Laurence Halbert.
 Accompanist: Ewart Chapple.
 7.45: Programme announcements.
 7.48: From Farmer's restaurant, dance music by the band.
 8.0: "Big Ben." By courtesy of J. C. Williamson, Ltd., a transmission from one of Sydney's leading theatres.
 9.0: "Big Ben." From the studio, weather report.
 9.1: Studio Dance Band, conducted by Cec Morrison.
 9.11: Phil Smith, comedian.
 9.18: Bryson Taylor, tenor—
 (a) "Ships of Arcady" (Head).
 (b) "Le Crepuscule" (Massenet).
 (c) "Lindenbaum" (Schubert).
 9.25: Zena and James Kendall, sketches.
 9.37: Studio Dance Band, conducted by Cec Morrison.
 9.49: Bryson Taylor, tenor—
 Three songs of the Hebrides—
 (a) "Kishmul's Galley" (Kennedy-Fraser).
 (b) "Skye Fisher's Song" (Kennedy-Fraser).
 (c) "The Sea Rievers' Song" (Kennedy-Fraser).

9.56: Zena and James Kendall, sketches.
 10.8: Studio Dance Band, conducted by Cec Morrison.
 10.13: Phil Smith, comedian.
 10.28: To-morrow's programme; late weather report.
 10.30: National Anthem. Close.

2BL

MORNING SESSION.

Announcer: A. C. C. Stevens.
 8.0: G.P.O. chimes. Weather report—State and metropolitan. 8.3: 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 silent friends. 10.0: G.P.O. chimes. Close.

MIDDAY SESSION.

Announcer: A. C. C. Stevens.
 11.0: G.P.O. chimes. 2BL Women's Sports Association Session, conducted by Miss Gwen Varley. A talk by "Priscilla." 11.30: Advertising hints. 11.40: Women's Session, conducted by Mrs. Cranfield. Talk on "Infant Welfare" by Nurse May. 12.0: G.P.O.

forecast by courtesy of Government Meteorologist. Producers' Distributing Society's fruit and vegetable market report. Grain and fodder report ("Sun"). Dairy produce report ("Sun"). 7.25: Mr. Pim and Miss Pam in advertising talks, handy hints, and nonsense. 7.53: An Ad. Special. 7.55: Programme and other announcements.

EVENING SESSION.

Announcer: Basil Kirke.
 Accompanist: G. Vern Barnett.
 8.0: G.P.O. chimes. Studio Orchestra—
 (a) "Troika" (Tschalkowsky).
 (b) Three French Songs—
 "Hindoo Song" (Bemberg).
 "At Evening" (Debussy).
 "Open Thy Blue Eyes" (Massenet).
 8.20: Mr. Optimist and Mr. Pessimist.
 8.30: Studio Orchestra—
 (a) Overture, "Pique Dame" (Boildieu).
 (b) "Barchetta" (Nevin).
 (c) "The Southern Maid" (Fraser Simson).
 8.50: Frederick Todd, basso—successful Radio competitor.
 8.57: Weather report.
 8.58: Studio Orchestra—
 "Our Miss Gibbs" (Mohckton).
 9.8: C. R. Dexter will give racing information.
 9.23: James Donnelly, songs at the piano.
 9.31: Studio Orchestra—
 Selected.
 9.41: Harry Croot, baritone.
 9.48: Studio Orchestra—
 Selected.
 10.0: Frederick Todd, basso—successful Radio competitor.
 10.7: Studio Dance Band, conducted by Cec Morrison.
 10.17: Bernice Patterson, popular vocalist.
 10.24: Studio Dance Band, conducted by Cec Morrison.
 10.34: Late weather report.
 10.36: Bernice Patterson, popular vocalist.
 10.43: Studio Dance Band, conducted by Cec Morrison.
 10.57: To-morrow's programme.
 10.59: Studio Dance Band, conducted by Cec Morrison.
 11.30: National Anthem. Close.

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chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "Sun" midday news service. 1.0: G.P.O. chimes. 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.

Announcer: A. C. C. Stevens.
 Accompanist: Kathleen Roe.
 3.45: G.P.O. chimes. Popular music. 4.0: G.P.O. chimes. Frank Botham, baritone—
 (a) "I Am Fate" (Hamblen), (b) "Ishtar" (Gilbert-Spross). 4.7: Captain A. C. C. Stevens will speak on "The Fight at Eureka Stockade—Roaring Eighties on Ballarat Goldfields." 4.22: Bertha Waters, soprano—
 (a) "Boat Song" (Ware), (b) "Spring Song" (Leoni). 4.29: Studio music. 4.36: Frank Botham, baritone—(a) "A Dinder Courtship" (Coates), (b) "Pass' Everyman" (Sanderson). 4.43: "Sun" news service. 4.48: Popular music. 4.52: Bertha Waters, soprano—(a) "Damon" (Strange), (b) "Open Thy Blue Eyes" (Massenet). 5.0: G.P.O. chimes. Pianoforte reproduction. 5.15: Studio music. 5.34: Producers' Distributing Society's market report. 5.37: Features of the evening programme.

EARLY EVENING SESSION.

Announcer: Basil Kirke.
 5.40: Children's Session, conducted by Uncle Bas. Music and entertainment. Letters and stories. 6.30: "Sun" news and late sporting. 6.40: Dinner music by the Instrumental Trio. 7.7: Australian Mercantile, Land, and Finance Co.'s report. Weather report and

2GB

10.0: Music. 10.10: Happiness talk by A. E. Bennett. 10.20: Music. 10.30: Women's session, by Miss Helen J. Beegling. 11.45: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.50: Music. 3.30: Close down. 5.30: Children's session, by Uncle George. 7.0: Music. 7.30: Feature story. 8.0: Miss Florence Gordon, contralto. 8.7: Instrumental music. 8.15: Mr. Leslie Herford, baritone. 8.25: Cello solos. 8.30: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.35: Miss Elsie Peerless, soprano. 8.45: Address. 9.0: Weather report. 9.3: Instrumental music. 9.13: Miss Florence Gordon, contralto. 9.23: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.28: Band selections. 9.38: Mr. Leslie Herford, baritone. 9.48: Cello solos. 9.55: Miss Elsie Peerless, soprano. 10.0: Instrumental music. 10.30: Close down.

2UW

MIDDAY SESSION

12.30: Request numbers. 1.0: G.P.O. clock and chimes; music. 1.15: Talk on Homecraft by Pandora. 1.40: Music and request numbers. 2.30: Close down. 4.30: Musical programme.

EVENING SESSION

5.30: Children's hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes; request numbers. 8.0: Music. 9.0: G.P.O. clock and chimes; comments on Foreign Affairs by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

Interstate Programmes, Friday, June 14

3LO

EARLY MORNING SESSION.

7.15: Morning melodies. 7.20: Morning exercise to music. 7.30: Stock reports: Stock Exchange information: general news, shipping, and sporting information. 8.0: Melbourn Observatory time signal. 8.1: Melodies. 8.15: Close down.

MORNING SESSION

11.0: 3LO's Supper Favorites—Rama-kiss. 11.5: Miss I. V. Crawford will continue her talks on—"Practical Psychology." 11.25: "Au Fait" will speak on—"Fashion" 11.45: Under the auspices of Department of Health: Dr. Featonby will speak on—"Milk as a Food."

MIDDAY SESSION

12.0: Melbourne Observatory time signal. 12.1: British official wireless news from Rugby. Reuters and the Australian Press Association cables: "Argus" news service. 12.15: Newmarket stock sales; special report by the Associated Stock and Station Agents, Bourke Street, Melbourne. 12.20: The Station Orchestra—Selection: "Southern Maid" (Simson). 12.30: Ciella Genoni M'Neill, soprano. 12.37: Stock Exchange information; prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. 12.43: The Station Orchestra—Suite "A Day in May" (Friml). 12.50: Madoline Knight, contralto—Old-time ballads. 12.57: Meteorological information; weather forecast for Victoria, New South Wales, South Australia and Tasmania; ocean forecasts; river reports; rainfall. 1.5: The Station Orchestra—Suite, "Africaine" (Coelridge Taylor). "A Love Song" (Bartlett). An instrumental trio. 1.15: The Jedral Trio (Alva Hattenbach, violin; Edna Hattenbach, cello; John Simons, piano)—(a) "Adagio" from Trio No. 4 (Beethoven); (b) "Told at Twilight" (Huerter); (c) "Ständchen" (Pache). John Simons, piano—"Allegretto" Concerto (Branardos). The Trio—"Walter's Prize Song" (Wagner). Passetpiel (Delbes). 1.45: Close down.

AFTERNOON SESSION

2.15: The Station Orchestra. Overture—"Oberon" (Weber). 2.23: The James Girls—in a Merry Musical Mixture. 2.30: The Station Orchestra. Selection—"This Year of Grace" (Coward). 2.50: Bert Ray, comedian—"The Laughograph." 3.0: Miss Frances Fraser will speak on "Alice in Wonderland for grown-ups." 3.15: Lechia Dobson, in a programme of 17th Century music—Italy: (a) "Tempi di Ballo" (Domenico Scarlatti). Germany: (b) "Prelude and Fugue, Solfeggiato" (P. E. Bach), in G Minor (J. S. Bach). France: (c) "Les Chantades Mystiques" (F. Couperin). (P. Couperin) (Louis Daquin). 3.30: The Jedral Trio (Alva Hattenbach, violin; Edna Hattenbach, cello; John Simons, piano)—(a) "Andante Melodico" (Dancia). (b) "Tango" (Albeniz). (c) "By the Brook" (Baldoffred). Edna Hattenbach, cello. "By the Lake" (Goddard). The Jedral Trio—(a) "Serenade" (Herbert). (b) "Valse" (Tschakowsky). 4.0: The Station Quartette. Two movements from Op. No. 2 (Beethoven). 4.10: J. Alexander Browne, baritone—"The Pauper's Drive" (Homer). "Little Blue Peter" (Bene Gibson-Smythe). 4.17: The Station Orchestra—Selection. "By the Sea" (Gounod). "Old South" (Zanicelli). 4.32: J. Alexander Browne, baritone—"She is Far From the Land" (Lambert). "Somebody Said" (Bene Gibson-Smythe). 4.40: The Station Orchestra—Selection. "Faust" (Gounod). 4.50: "Her" news service: Stock Exchange information. 5.0: Close down.

EARLY EVENING SESSION.

6.0: Answers to letters and birthday greetings, by "Billy Bunny." 6.25: Musical interlude. 6.30: Captain Donald Mackintosh will continue his series of Adventure Yarns for Boys. 6.45: "Billy Bunny"—A Little Bit of Fun.

EVENING SESSION

6.50: Madame Soward—"French Without Tears." 7.0: Stock Exchange information. 7.15: Official report of the Newmarket Stock Sales by the Associated Stock and Station Agents, Bourke Street, Melbourne: latest truck orderings for next week's markets. Fish market reports by J. E. Borrett Ltd. Rabbit prices; river reports; rainfall; weather synopsis; market reports by the Victorian Producers' Co-operative Co. Ltd. Farm and dairy produce and cereals market reports. 7.25: Market reports of the Victorian Fruitgrowers' Association: retail prices: wholesale prices of fruit by the Wholesale Fruit Merchants' Association; citrus fruits. 7.30: News section. 7.43: Birthday greetings. 7.45: Out of the Past. 7.46: Under the auspices of the Department of Agriculture, P. de Castella, viticulturist, will speak on "Vineyard Tillage." 8.0: A Maker of History.

NIGHT SESSION

8.1: Programme announcements. 8.2: H. K. Love will speak on "Rechnitization." 8.15: Collingwood Citizens' Band—March, "Always Faithful." Overture, "The Gallop of Bagdad." 8.25: Madoline Knight, contralto—Old-time Ballads. 8.32: Collingwood Citizens' Band—Trombone solo: "Angels, Guard Thee." Soloist: A. Thorne. 8.35: Madoline Knight, contralto—March: "Duntroon" (P. Code). 8.40: Ciella Genoni M'Neill, soprano—"Beauty's Eyes" (Tosti). "Annie Laurie" (Lohmann). 8.47: Concert by the University Symphony Orchestra, transmission from the Melba Hall, University of Melbourne. Conductor, Prof. Bernard Heinze. Orchestra—"Barber of Seville" (Rossini). Orchestra, "Concerto in 1st Movement" (Grieg). Myrtle Wise soprano—"The Pretty Mocking Bird" (Bishop). Orchestra—"Barocco Suite" (Atterburg). Myrtle Wise soprano—"Cast on My Grave a Flower" (Donizetti). Orchestra—"March on a Russian Theme" (Glazunow) (first performance in Melbourne).

9.47: Eric Welch will speak on to-morrow's races at Williamstown.

10.0: News service. British official wireless news from Rugby; meteorological information; announcements.

10.10: Bert Ray, dame comedian—"Don't Have Any More Missus More." "Pass No Fude Remarks."

10.17: The James Girls—in a Merry Musical Mixture.

10.30: Collingwood Citizens' Band—Waltz: "The Cuckoo." "Hamiltonian March."

10.38: Bert Ray, dame comedian—"A Dear, Kind, Doctor." "My Intended."

10.44: Ern Hall, Radio Retellers—"Shivering" (Doody). "Promise Me" (Van Cootie). "Ready for the River" (Forest). "My Stormy Weather Pal" (Plantadost). "What'll You Do?" (Cohr). "Do You?" (Plantadost). "P's Old Hat" (Cox).

10.50: "Colonbo" (Nichols). "I Fell Head Over Heels in Love" (Thayer). "Sonny Boy" (Brown). "Sally of My Dreams" (Kernell). "You're Tonal Sweetheart" (Friend).

11.30: God Save the King.

3AR

MORNING SESSION

10.0: G.P.O. clock says "Ten." 10.13: Market reports; farm and station produce; fruit, fish, and vegetable. 10.25: Shipping reports; ocean forecasts. 10.30: Mail notices; express train information. 10.35: News service. 10.50: Weather forecast.

MORNING SPECIAL SESSION

11.0: Wings, whispers. 12.20: British official wireless news; announcements. 12.30: Close down.

AFTERNOON SESSION

3.0: The Discus Ensemble, in symphony and song. 4.30: Close down.

EVENING SESSION

6.0: Tuneful tit-bits. 7.10: News service; announcements. 7.20: Sweet solace from the Seraphina.

NIGHT SESSION

8.30: Community singing, transmitted from the Collingwood Town Hall. 10.20: News service; announcements; Eric Welch's selections for the Williamstown races, to be held on Saturday, 18th instant. 10.30: God Save the King.

4QQ

EARLY MORNING SESSION.

7.43: Time signals. 7.45: News service. 8.0: Records 8.15: News service.

MORNING SESSION

11.0: Music. 11.5: Social news. 11.15: Lecturette: A cookery and household talk, by "The Etiquette Girl." 11.30: Music. 12. (noon): Close down.

MIDDAY SESSION

1.0: Market reports and weather information. 1.20: Lunch-hour music. 2.0: Close down.

AFTERNOON SESSION

3.0: From the Studio—A programme of music by the Studio Orchestra—Singing—Selection. "Robin Hood" (Wiegand). "Valse, Expectation" (Godard). Characteristic, "Dance Pompette" (Rosenthal). Romance, "Rose Leaves" (Edwards). Rag, "Tar Babies" (Johnson). Overture, "King Lear" (Hart). March, "Fing De" (Schman). Between tennis, Mrs. Robert Bell (soprano) will sing—"A Silver Lining" (Donaldson). "Angela Mia" (Rapee). "Joy Waltz" (Strauss). 4.15: Afternoon news service. Close down.

EARLY EVENING SESSION

6.0: Mail train running times; mail information; shipping news. 6.5: A travel talk—Mr. J. W. Hayes Queensland organiser, Australian National Travel Association. 6.25: Commercial announcements. 6.30: Bedtime stories, conducted by "The Sandman." 7.0: News in brief. 7.5: Stock Exchange news. 7.8: Metal quotations. 7.7: Market reports. 7.30: Weather information. 7.40: Commercial report. 7.40: Announcements. 7.43: Standard time signals. 7.46: Tomorrow's sporting fixtures reviewed.

NIGHT SESSION

A programme by the Sydney May's Party. 8.0: From the Studio—Jack Land (tenor)—Recit: "How Vain is Man" (Gounod). Air "Ben's Boy" (Gounod). Miss Patricia M'Onigly (soprano)—"Home, Little Maori, Home" (Hill). Part-song, "Annie Laurie" (Curie). Lou Lambert (alto)—"Love, Could I Only Tell Thee" (Oapel). Jill Manners (soprano)—"I Will Await Thee" (Clark). Vera Parker (contralto)—"Three Fishers Went" (Hullah). Quartette—Jill Manners, Pat M'Onigly, Jack Land, and Jack Atkinson. "One Day I'll Remember Well" (Verdi). Florence Felen (contralto)—"The Lark" (Glinka-Balakirev). Part song, "Song of India" (Rimsky-Korsakoff). Jack Atkinson (baritone)—"The Frog" (Leoncavallo). John Steele (tenor)—"Call Forth Thy Powers" (Handel). Vera Parker (contralto)—"Goose" (Burchell). Part Song—"The Dashing White Sergeant" (Patterson).

Jack Land (tenor)—"By the Blue River" (Clarke). Pat M'Onigly (soprano)—"There's a Long, Long Trail" (Elliot). John Steele (tenor)—"You in a Gondola" (Clarke). Vera Parker (contralto)—"Salunah" (Laug). Jill Manners (soprano)—"Cherry Ripe" (Horne). "Invitation" (Loven). Part Song—"Welcome to May" (Mendelssohn). Lou Lambert (baritone)—"Red Devon by the Sea" (Clarke). "You Lovely Thing" (Anderson). Pat M'Onigly and Jack Land—Vocal Duet—"Love" (Stainer). Florence Felen (pianist)—"Ballade in A Flat" (Chopin). Part Song—"Irish Minstrel." Jack Atkinson (baritone)—"Drink to Me Only With Thine Eyes" (B. Jonsa). Part Song—"The Skippers of St. Ives" (Roedel). 10.0: News: weather. Close down.

5CL

MORNING SESSION.

11.0: Chimes. 11.1: Morning melodies. 11.5: Kitchen craft and menu talk. 11.45: Mr. L. G. Cans will speak on "First Aid to the Injured." 12.0: Chimes. 12.1: Midday music, Columbia recordings. 12.15: News service. British official wireless news. 12.20: Railway information; Stock Exchange information; meteorological information. 1.1: From the Adelaide Town Hall, community singing. 2.0: Close down.

AFTERNOON SESSION.

3.0: Chimes. 3.1: The Classic Trio (Owen Moss, violin; Helena Harris, cello; Rose M'Cahe, piano). "Agilus Dei" (Bizet). "Trio in F Major" (second movement) (Gade). "La Berceuse" (Gounod). 3.10: Violet Jackson, soprano. 3.17: Arthur Douglas. 3.23: Victor Innes-Morcom, baritone. "Still as the Night" (Carl Bohm). "Howe Sends a Little Gift of Rose" (John Openshaw). 3.30: The Classic Trio (Owen Moss, violin; Helena Harris, cello; Rose M'Cahe piano). "The Volga Boat Song" (Traditional). "Waltz in E Flat" (Chopin). "Serenade" (Schubert). 3.40: Violet Jackson, soprano. 3.47: Arthur Douglas, Scotch comedian, will entertain you again. 3.54: Victor Innes-Morcom, baritone. "The Blue Dragons" (Kennedy Russell). "Little Town in Old County Down" (Monte Carlo). 4.1: The Classic Trio (Owen Moss, violin; Helena Harris, cello; Rose M'Cahe, piano). "Chant Sans Paroles" (Tschakowsky). "Hungarian Dance No. 6" (Brahms). "Tomb Raider" (MacDowell). 4.15: A talk on jazz, with illustrative recordings by Horace Perkins, Mus. Bac. A.M.U.A. 4.55: Stock Exchange information. 5.0: Chimes.

EVENING SESSION.

6.0: Chimes. 6.1: Birthday greetings, correspondence, and stories. "The Great British Circus." "Millie Mushroom" will talk to you about "Springtime in Devon." 6.45: Sporting service, including a review of to-morrow's races at Talliem Bend and Williamstown. 7.1: Stock Exchange information. 7.5: General market reports. 7.10: "Mo" Manning will speak on "Football." 7.25: Principal Klek, M.A., B.D., will speak on "Mary Queen of Scots." 7.30: "Greatest Prize," M.A., F.R.C.S., will continue his talks on "Pioneers of Australia—Augustus Kavel."

NIGHT SESSION.

8.0: Chimes. 8.1: Boake-Smith's Palais Royal Band. "It Goes Like This" (Friend). "I Don't Care" (Davis). "Dream House" (Davis). 8.11: Violet Jackson. 8.14: Boake-Smith's Palais Royal Band. "Ricketty Ricketty Back" (Tobias). "Bouquet of Memories" (Aksel). "Avalon Town" (Brown). 8.24: Arthur Douglas. 8.29: Boake-Smith's Palais Royal Band. "Black Rag" (Jyellen). "There's a Rainbow Round My Shoulder" (Dwyer). "Alabama Stomp" (Johnson). 8.39: Syd Morrell, baritone. "Friend or Mine" (Sanderson). 8.42: Boake-Smith's Palais Royal Band. "Together" (De Sylva). "Someday My Prince Will Come" (Brahms). "That Saxophone Waltz" (Sisk). 8.52: Violet Jackson. 8.55: Boake-Smith's Palais Royal Band. "Sonny Boy" (Sally). "I'm Sorry, Sally" (Kahn). 9.1: Meteorological information, including Semaphore tides. 9.2: Overseas grain report. 9.3: Arthur Douglas. 9.8: Boake-Smith's Palais Royal Band. "Cock-a-Do!" (Tobias). "You've Got to Learn to Smile" (O'Bagan). "All by Yourself in the Moonlight" (Wallis). 9.18: Syd. Morrell, baritone. "Sing of the Clouds" (Burchell). 9.21: Boake-Smith's Palais Royal Band. "Sally of My Dreams" (Kernell). "Was It a Dream" (Coslow). "Susanah" (Squawking Shoes" (Wergall). "Mother, I Still Have You" (Jolson). 9.34: Violet Jackson. 9.37: Boake-Smith's Palais Royal Band. "Me and the Moon in the Moon" (Lestaj). "You're Wonderful" (Fields). "Anything You Say" (Donaldson).

9.47: Arthur Douglas.
 9.50: Boake-Smith's Palais Royal Band.
 "Sometimes I'm Happy" (Youmans).
 "Dem Golden Slippers."
 "Flower of Love" (Dreyer).
 10.0: Syd Morrell, baritone.
 "Where My Caravan Has Rested" (Lohr).
 "Sylvia" (Speaks).
 10.6: Boake-Smith's Palais Royal Band.
 "Beautiful" (Shay).
 "My Blackbirds are Bluebirds Now" (Friend).
 "Is She My Girl Friend?" (Yellen).
 10.15: "The Advertiser" general news service; British official wireless news; meteorological information; announcements.
 10.20: Sporting service, including selections for Tailem Bend and Williamstown races to-morrow.
 10.30: Boake-Smith's Palais Royal Band.
 "Without You, Sweetheart!" (De Sylva).
 "A Siren's Dream" (Coslow).
 "Dream Melody" (Kuchler).
 "Mississippi Mud" (Barris).
 "I Fell Head Over Heels in Love" (Thayer).
 "Lonesomest Girl in Town" (Baer).
 "Caroloma Moon" (Davis).
 "With My Honey and Me" (Tobias).
 "Lily of Laguna" (Stuart).
 "Laugh, Clown, Laugh" (Lewis).
 11.0: Close down.

6WF

10.0: Tune in. Gramophone and phonograph records. 11.0: Close down. 12.30: Tune in. 12.35: Markets, news, etc. 1.0: Time signal. 1.1: Weather bulletin supplied by the Meteorological Bureau of West Australia. 1.3: Items by the Radio Trio from the Studio. 2.0: Close down.
 3.30: Tune in. 3.31: Afternoon tea music relayed from the Primrose Cafe de Luxe. Items by the Misses Chapman and Marshall. 4.30: Close down.
 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Radio Trio, comprising Miss Audrey Dean (piano), Miss E. Waterman (cello), Mr. H. T. Newton (violin). 7.30: Commercial and general information. 7.45: "Racing" talk by the Sporting Editor of the "Truth" Newspaper Co., Ltd. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Musical programme from the Studio, including vocal artists. Miss M. Hodgson (soprano), Signor Palmetto (tenor), Miss Audrey Dean (pianist), Mr. Malcolm (electricianist). 8.50: Late news items by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements, ships within range announcements; late weather bulletin. 8.57: "Gardening" talk by Mr. James Conary. 9.12: Programme continued from the Studio. 10.30: God Save the King.
 104.5 METRE TRANSMISSION.
 Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 6.45 p.m.

7ZL

MIDDAY SESSION.

11.30: Musical selections. 11.34: Midlands weather forecast. 11.55: Tasmanian stations 9 a.m. weather report. 12.0: Chimes. 12.1: Shipping information; ships thin wireless range; mail notices; housewives' services; commercial news. 12.29: Announcements. 12.55: News service; British official wireless news; Railway auction produce sales, held at Railway. 1.30: Close down.

AFTERNOON SESSION

3.0: Chimes. 3.1: Musical selections. 3.4: Weather information. 3.15: An orchestral programme, including recordings by San Francisco Symphony Orchestra, Johann Strauss and Symphony Orchestra, Royal Philharmonic Concert Orchestra, Paul Whiteman and his Orchestra, and the Halle Orchestra.

EARLY EVENING SESSION

6.15: Musical selections. 6.30: "The Story Lady" will tell a story to the wee folk. 6.50: Peggy Dyer will play the piano for the wee folk—"L'Adieu" (Beethoven), "In a Monastery Garden" (Kotelby). 7.0: Answers to Letters and Birthday Greetings by Uncle David and The Story Lady. 7.10: News service; Railway auction produce sales, held at Railway; Tasmanian district weather report.

EVENING SESSION

7.15: Sid Jones will speak on "Football." 7.30: A studio concert. Harry Guy (baritone)—"Roses of Picardy" (Wood), "My Old Shako" (Troters). 7.37: Jack Courtney organ solo—"Shallma" (Nicholls), 7.41: Jean Hibbard, soprano—"Glorious Days" (Johnson), "Mignon" (Hardelot). 7.48: Cherniavsky Trio, violin, cello, and piano—"Barcarolle" (Offenbach), "Spring Song" (Mendelssohn). 7.55: Rene Dyer (contralto)—"Thoughts" (Fisher), "Less than the Dust" (Finden). 8.2: Guitar duet—"Ghost Dance" (Meinken), "Wasbash Blues." 8.8: Harry Guy, baritone—"Can't You Hear Me Calling" (Roma), "Plymouth Hoe" (Lennard). 8.16: Hawaiian Guitars—"Aloha Lani" (One Two, three, four, Medley). 8.23: Jean Hibbard, soprano—"Ma Curly-headed Baby" (Clutsum), "Meadow Sweet" (Brahe). 8.30: Philadelphia Symphony Orchestra—"Invitation to the Waltz," parts 1 and 2. 8.37: Rene Dyer, contralto—"Love Sends a Little Gift of Roses," "Passing By" (Purcell). 8.45: J. M. Counsel—"The History and Development of Music." 9.45: News service; British official wireless news; Market reports from Messrs. Roberts and Co., Wise and Stirling, and T. Thorpe and Co. Railway week-end information. 10.0: Chimes. 10.1: Close down.



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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. 7.15: Studio music. 7.25: Investment market; mining sharemarkets; metal quotations; wool sales; breadstuffs markets; inter-State markets; produce markets. 7.40: Studio music. 8.0: "Big Ben." Close.

MORNING SESSION.

Announcer: Eric Bessemer.

10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: Last-minute sporting information, by the 2FC Racing Commissioner. 10.40: Studio music. 10.45: A talk on "Gardening," by J. G. Lockley ("Redgum"). 11.0: "Big Ben"; A.P.A. and Reuter's cable services. 11.5: Close down.

MIDDAY AND AFTERNOON SESSIONS.

Announcers: Laurence Halbert and Ewart Chapple.

Note.—Race results from Victoria Park. 12.0: "Big Ben" and announcements. 12.2: Stock Exchange information. 12.4: "Sydney Morning Herald" news service. 12.10: Rugby wireless news. 12.13: Studio music. 12.35: "Evening News" midday news service. 12.50: From Rosehill—description of the races in the running. During intervals between races musical items by the "Musical Shirleys" from the studio. 4.45: Sporting and racing resume. 5.0: "Big Ben." Close.

EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The children's session, conducted by the "Hello Man"; letters and stories; music and entertainment. 6.40: Stock Exchange information. 6.45: Weather and shipping news. 6.47: Rugby wireless news. 6.52: Late sporting news. 6.57: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Mignonette" (Raynor), (b) "Only the River" (Hopkins), (c) "The Naughty Princess" (Cuvillier), (d) "Minuet in B Flat" (Beethoven), (e) "Melodie" (Tschakowsky).

EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.30: Popular music.
7.45: Programme announcements.
7.51: A celebrity record.
7.56: Foreword to the next item.
8.0: "Big Ben." From the Conservatorium of Music—"The Prince Who was a Piper," a production arranged by Harold Watch.
8.45: From the Studio—
Studio Dance Band, conducted by Cec. Morrison.
9.0: G.P.O. chimes: weather report.
9.1: Studio Dance Band, conducted by Cec. Morrison.
9.10: Foreword to the next item.
9.15: From the Conservatorium of Music—"The Patchwork Quilt," a production arranged by Harold Watch.
9.45: Approx. A foreword to the next item.
9.50: "The Pavoda of Flowers," a production by Harold Watch.
10.15: From the Studio—Cec. Morrison's Dance Band.
10.28: Late weather report.
10.30: Studio Dance Band, conducted by Cec. Morrison.
10.57: To-morrow's programme.
10.59: Studio Dance Band, conducted by Cec. Morrison.
11.30: National Anthem. Close.

2BL

MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: G.P.O. chimes. Weather report—State and metropolitan. 8.3: 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 silent friends. 10.0: G.P.O. chimes. Close down.

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. Cranfield. 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 early forecast and weather report. 12.3: Pianoforte reproduction. 12.30: "Sun" midday news service. 12.40: Studio music. 1.0 "Sun" news service. 1.10 Studio music. 1.40: "Sun" news service. 1.50: Studio music. 2.0: G.P.O. chimes. Close down.

AFTERNOON SESSION

Announcers: Eric Bessemer (Studio),

Basil Kirke (Sports Ground).

Accompanist: Kathleen Roe.

Note: Race results from Victoria Park and Rosehill. 2.55: Race results and announcements. 3.0: From the Sydney Sports Ground—Description of the Football Match. 3.15: From the Studio: Cliff Gane, comedian—"The Grass Widower" (Woodhouse). Race results. Popular items. 3.30: From the Sydney Sports Ground: Description of the Football Match. 3.45: From the Studio: Cliff Gane, comedian—(a) "You Can't say Bread and Butter Without Moving Your Lips" (Waite), (b) "Swim, Sam, Swim" (Weston). Race results. Popular items.

3.55: From the Sydney Sports Ground: Description of the Football Match. 4.10: From the Studio: Race results. Studio music. 4.25: From the Sydney Sports Ground: Description of the Football Match. 4.45: From the Studio: Sporting resume. Studio music. 5.0: G.P.O. chimes. Close.

EARLY EVENING SESSION.

Announcer: Basil Kirke.

5.40: Children's Session, conducted by Uncle Bas. Music and entertainment. Letters and stories. 6.30: "Sun" news service. 6.40: 2BL Dinner Quartette—(a) "The Way of the Heart" (Lenike), (b) "Zazra" (Bowen), (c) "I Love to Hear You Singing" (Wood), (d) "No, No, Nanette" (Youmans), (e) "Some Distant Day" (Varney-Monk). 7.7: Complete sporting and racing resume. 7.30: Mr. Pim and Miss Pam in advertising talks, handy hints, and nonsense. 7.53: An Ad. Special. 7.55: Programme and other announcements.

EVENING SESSION.

Announcer: Basil Kirke.

Accompanist: G. Vern Barnett.

8.0: G.P.O. chimes. King's Mandolin Quartet—
(a) "La Sorella" (Borel-Clerc).
(b) "Love's Old Sweet Song" (Molloy).
8.10: Charles Lawrence, entertainer.
8.20: The Troubadours.
8.30: King's Mandolin Quartet—
(a) "Hawaiian Flowers" (Smith).
(b) "Forget Me Not" (Smith).
(c) "Aloha Oe" (Smith).
8.40: Charles Lawrence, entertainer.
8.50: The Troubadours.
9.0: G.P.O. chimes. King's Mandolin Quartet—
(a) "Andante Cantabile" (Tschakowsky).
(b) "Angel Gabriel" (Pouchon).
9.10: Les Shipp, comedian—
(a) "Tinker, Tailor, Soldier, Sailor" (Damerell and Hargraves).
(b) "All by Yourself in the Moonlight" (Wallis).
9.20: The Troubadours.
9.30: Les Shipp, comedian—
(a) "I'm Not All There" (Carlton).

(b) "A Song About Rhubub" (Stanley and Allan).

(c) "My Nex' Door Neighbor" (Sherman and Blooen).

9.40: Alex Whitson, baritone—
(a) "The Song of Hybris the Cretan" (Elliott).

(b) "World that Once was a Garden" (Lohr).

9.47: Impression of to-night's fight, by an eye-witness.

10.0: G.P.O. chimes. Romano's.

10.10: Alex Whitson, baritone—

(a) "The Bachelors of Devon" (Day).

(b) "Pals of Long Ago" (Carey).

10.17: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

10.28: From the Studio: Late weather report.

10.30: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

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

10.59: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

11.30: National Anthem. 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

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

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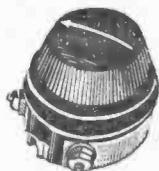
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3LO

EARLY MORNING SESSION

7.15 to 8.15: See Friday

MORNING SESSION

10.50: Eric Welch will speak on to-day's races at Williamstown. 11.0: The Strad Trio (Cec) Parkes violin, Myra Montague piano, Frank Johnston (cello). Trio, Op. 12, No. 1 (Hummel), Allegro Agitato, Andante. Finale, 11.18: Cielia Genoni M'Neill, soprano, selections from her repertoire. 11.25: Cecil Parkes, violin, "Londonderry Air" (Kreislner), "Liebestraud" (Kreislner). 11.33: Cielia Genoni M'Neill, soprano, selections from her repertoire. 11.40: Myra Montague, piano, "Scherzo in B Flat" (Chopin). 11.48: The Strad Trio, extract from "Rosamund" (Schubert), "Menuet" (Aristides), "Requiem" (Schumann), "Guitar Player" (Schytte). 11.58: Announcements.

MIDDAY SESSION

12.0: Melbourne Observatory time signal. 12.1: British Official Wireless news from Rugby; Reuters and the Australian Press Association cables; "Argus" news service. 12.20: The Radio Revelers, "Constellation" (Carlton), "My Angeline" (Wadney), "There's a Rainbow Round My Shoulder" (Johnson). 12.30: The James Girls, in a melodious mood. 12.35: The Radio Revelers, "Dada, Dada" (Dore), "Oh, Is She Mad at Me" (Finlay), "I Do, and Knight" (contralto, old-time ballads. 12.58: The Radio Revelers, "High Upon a Hilltop" (Baer), "When Love Comes Sealing" (Rapee). 1.4: Bert Ray, comedian, "Whimsicalities" (Morton), "My Angeline" (Wadney), "Up the Carpet" (Nixon), "To-day, To-morrow, For Ever" (Nichols). 1.15: Madoline Knight, contralto, more old-time ballads. 1.23: The Radio Revelers, "Shimanki Day" (Dickson), "Who Knows?" (Dickson). 1.30: Description of baseball match, Richmond v. University, at Richmond, by Percy Steele.

AFTERNOON SESSION

1.57: Description by Eric Welch of Maiden Hurdle Race, two miles, Williamstown races. 2.8 and 2.40: Description of baseball match, Richmond v. University, at Richmond, by Percy Steele. 2.33: Description of Juvenile Handicap, six furlongs, Williamstown races. 2.45, 3.2, 3.20, and 5.0: Description by Rod M'Gregor of football match, Collingwood v. Melbourne, at Collingwood. 2.55, 3.30, 4.20, 4.60, and 5.0: Description by Mel Morris of football match, Richmond v. Geelong, at Richmond. 3.8: Description of Port Phillip Hurdle Race, two miles, Williamstown races. 3.28: Quarter-time scores. 3.43: Description of Williamstown Steeplechase, two miles, Williamstown races. 3.50: Record from the studio. 4.0: Half-time scores. 4.13: Description of Point Cook Handicap, one mile and a quarter, Williamstown races. 4.40: Three-quarter time scores. 4.43: Description of Esplanade Welter, one mile, Williamstown races. 5.15: News service. 5.30: Final scores, League and Association football matches.

EARLY EVENING SESSION

5.45: All sporting results. 6.0: Birthday greetings and answers to letters, by "Little Miss Kookaburra." 6.25: Captain Donald Maclean will continue his series of adventure stories for boys. 6.40: "Little Miss Kookaburra" will tell the final instalment of "The Guide Camp at Heron's Bay."

EVENING SESSION

6.55: Market reports. 7.10: News session; final scores of League and Association football matches. 7.30: Birthday greetings. 7.24: "Out of the Past." 7.25: Dr. J. A. Leach will speak on "Reed and Grass Warblers." 7.40: J. Howlett Ross will speak on "Pavlova."

NIGHT SESSION

7.55: Programme announcements; 3LO's weekly Tasmanian letters from the "Courier", Launceston. 8.0: Transmission from His Majesty's Theatre. Ballet music by Madame Pavlova's Orchestra (principal concert, from Kura). 9.50: Eric Welch will describe to-night's events at the Stadium. 10.5: Record feature of the week. 10.10: The Trio (Cec) Parkes violin, Edna Hattenbach (cello, John Simons piano). (a) "To a Miniature" (Brahms). (b) "Hungarian Dance" (Brahms). (c) "The Old Song" (Brandt-Kreislner). Edna Hattenbach, cello. "Melodie" (Louis Hattenbach). "Mazurka" (Neruda). The Trio "Lullaby" (Una Bourne). "Ronda Alla Turca" (Mozart). 10.35: Ern Hall's Radio Revelers, with Hugh Huxham. "Wear a Hat with a Silver Lining" (Sherman). "One Alone" (Romberg). "Just Give the Southland to Me" (Sissell). "The Desert Song" (Romberg). "A Room with a View" (Coward). "What a Girl" (Sanders). "Dynamite" (Henderson). "The Dance of the Blue Danube" (Fisher). "Rosetime" (Hall). "Me and the Man in the Moon" (Monaco). 11.30: God Save the King.

3AR

MORNING NEWS SESSION

10.0 to 10.59: See Friday.

MORNING MUSICAL SESSION

11.0 to 12.0: See Friday.

AFTERNOON SESSION

3.0: The Station Orchestra, "A Nautical Suite" (Fletcher). 3.10: Cielia Genoni M'Neill, soprano, "Serenata" (Denza), "Maushu" (M'Kurogh). 4.37: Announcements. 4.40: The Station Orchestra, selection, "My Lady Frayle" (Talbot), selected. 5.0: Close down.

EVENING SESSION

4.0: Sweet strains from the Seraphina. 7.10: News service; announcements. 7.20: Beautiful ballads.

NIGHT SESSION

8.29: All sporting results. 8.30: The Station Orchestra. Ballet, "The Shoe" (Ansell). 8.40: Bert Ray, dame comedian. "A Proper Cup of Coffee." "Why Do the Men Run After Me?" 8.47: French Bros. banjoists. Mingled melodies. 8.54: The James Girls, in "A Bright and Breezy Budget." 9.8: The Station Orchestra. 9.20: French Bros. banjoists. 9.27: The Station Orchestra. 9.30: Bert Ray, dame comedian. 9.38: The Station Orchestra. "The Magic Ring" (Levey). 9.47: French Bros. banjoists. "Mingled Melodies." 9.54: The Station Orchestra. Selection, "The Southern Maid" (Simson). 10.7: Transmission from His Majesty's Theatre, Melbourne. 10.47: News service. Announcements. 10.57: God Save the King.

4QG

EARLY MORNING SESSION

7.43 to 8.30: See Friday.

AFTERNOON SESSION

3.0 to 4.30: See Friday.

EARLY EVENING SESSION

6.15: "Queensland" bi-weekly news service for distant listeners. 6.30: Bedtime stories, conducted by "Uncle Ben." 7.0: To-day's races in detail. 7.20: General sporting notes. 7.30: Sailing notes by Mr. Fred Smith.

NIGHT SESSION

8.0: From the Savoy Theatre. Over: Description of Orchestra. 8.10: From the studio. Programme of roses. Studio Orpheans Quintette. "Image of the Rose." Ray Bruce (tenor). "When You Look in the Heart of a Rose." E. Harper (baritone). "Roses of Picardy" (Haydn Wood). "Moonlight and Roses." Studio Orpheans Octette. "The Lovely Rose" (Hermes). J. P. Cornewell (bass). "The Nightingale and the Rose" (Lohr). "A Red Rosebud" (Gibbs). O. Willahush (tenor). "Love Sends a Little Gift of Roses." Fred Crane (baritone), O. Rice (tenor). Vocal duet, "Go, Lovely Rose" (Cullier). R. Tale (pianist). "The Rosebud" (Adams). T. Muller (flautist). "Rosa" (Lubbeck). F. Crane (baritone). "Roses" (Fletcher). "Roses in the Bud" (Forster). Studio Orpheans Octette. "The Two Roses" (Werner). Jean Naylor (contralto). "Love's Garden of Roses" (Wood). Ray Bruce (tenor). "The English Rose" (from "Merrie England," German). E. Harper (baritone). "A Bowl of Roses" (Clarke). C. Rice (tenor). "Lay My Head Beneath a Rose" (Palkenstein). Studio Orpheans Octette. "Rose of My Heart" (Lohr). 9.15: From Lennon's Ballroom. Dance music. 10.0: From the studio. News. Weather.

5CL

MORNING SESSION

12.0: Chimes. 12.1: Special late selections for Williamstown races by Mr. Eric Welch, 3LO's special sporting commentator. 12.3: Probable starters and selections for Tallen Bend races. 12.15: News session. 12.40: Railway information; meteorological information. 12.44: Recordings. 1.0: Close down.

AFTERNOON SESSION

2.0: Q.P.O. chimes. 2.1: Resume of previous race results at Tallen Bend and Williamstown. 2.3: Musical interlude. Parlophone recordings. 2.10: Williamstown race result, Juvenile Handicap. 2.11: Musical interlude. 2.25: Result, Tallen Bend Handicap. 2.26: Musical interlude. 2.45: Williamstown race result, Port Phillip Hurdle race. 2.46: Musical interlude. 2.50: Description of League football, by "Uncle David." 2.55: Resume of previous race results; Tallen Bend race result, Brush Steeplechase. 3.7: Description of League football. 3.20: Williamstown race result, Steeplechase. 3.21: Musical interlude. 3.25: Description of League football. 3.46: Tallen Bend race result, Trial Stakes. 3.46: Musical interlude. 3.50: Williamstown race result, Point Cook Handicap. 3.51: Musical interlude. 4.0:

Chimes. 4.1: Resume of previous race results and football scores. 4.3: Musical interlude. 4.5: Description of League football. 4.20: Williamstown race result, Esplanade Welter. 4.21: Description of League Football. 4.26: Tallen Bend race result, Welter Handicap. 4.26: Description of League football. 4.31: Musical interlude. 4.40: Description of League football. 5.5: Tallen Bend race result, District Handicap; final football scores; resume of race results. Close down.

EVENING SESSION

6.0: Chimes. 6.1: Resume of race results and football scores. 6.8: Birthday greetings, correspondence, songs, and stories by "The Wattle Lady." 6.30: Dinner music. 7.0: Chimes. 7.1: Stock Exchange information; announcements. 7.10: Rev. G. E. Hale, B.A., on "The Art of Living with Yourself." 7.30: Mr. C. G. Riley on "Items of Interest." 7.45: Sporting service, supplied by "Silvius," including Tallen Bend and Williamstown race results, football scores, Soccer, hockey, lacrosse results.

NIGHT SESSION

8.0: Chimes. 8.1: South Australian Railways Band, conducted by Mr. J. Radcliffe. March, "National Emblem" (Begley). Waltz, "Die Hydroptan" (Gungl). 8.11: Good-bys to Violet Jackson. 8.18: Arthur Douglas. 8.24: Harold Wenzel, bass-baritone. "I'll Sing Thee Songs of Araby" (Clay). "Passing By" (Purcell). 8.31: South Australian Railways Band. Selection, "Classic Circle" (Rimmer). March, "B.B. and C.P." (Hume). 8.45: From the Exhibition Building—wrestling. 10.0: Harold Wenzel, bass-baritone. "Don Juan's Serenade." "I Saw You Go By." 10.6: Arthur Douglas. 10.10: South Australian Railways Band. Waltz, "Entrée Conducteur" (Rossi). 10.15: General news service; British official wireless news; meteorological information; announcements. 10.20: Sporting service, including Tallen Bend and Williamstown race results; football scores, Soccer, and lacrosse scores. 10.30: Modern dance music. 11.0: Close down.

6WF

10.0: Tune in. Gramophone and Phonograph records from the studio. 11.0: Close down. 12.0: Tune in. 12.5: Racing anticipations. 12.7: Pianoforte solos by Miss Audrey Dean. 12.44: News, etc. 1.0: Time signal. 1.1: Weather bulletin supplied by the Meteorological Bureau of Western Australia. 1.3: Close down. 2.30: Sporting session. Description and results of races run at Canning Park Racecourse, together with the quarter-time scores of the following football matches will be broadcast during the afternoon: Claremont-Cottesloe v. East Fremantle, South Perth v. Perth, Subiaco v. West Perth. 5.30: Approx.: Close down. 6.45: Tune in. 6.48: Bedtime stories by Auntie Amy. 7.12: Sports results. 7.30: Commercial and general information. 7.45: Talk. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Variety programme from the Studio, including Solos, Quartets, and Duets by the Melody Four, comprising Misses D. Horgan and D. Lang, and Messrs. J. Hayes and P. Crofts. Miss Audrey Dean (pianist). 8.50: Late news items by courtesy of "The Daily News" newspaper Co., Ltd.; station announcements; ships with in range announcement; late weather bulletin. 9.5: Musical programme continued from the Studio. 10.30: God Save the King. 10.4: 5 METRE TRANSMISSION. Simultaneous broadcast on 104.6 metres of programme given on 1250 metres, commencing at 8.45 p.m.

7ZL

MIDDAY SESSION.

11.30 to 1.30: See Friday. 2.0: Description of Maiden Hurdle Race, 2 miles, Williamstown, Melbourne. 2.35: Description of Juvenile Handicap, 6 furlongs, Williamstown. 2.40: Close down.

AFTERNOON SESSION.

3.0: Chimes. 3.4: Transmission from the North Hobart Oval, football match, North v. South, described by Sid Jones. 3.10: Description of Port Phillip Hurdle Race, 2 miles, Williamstown. 3.15: Football match, North v. South. 3.45: Description of Williamstown Steeplechase, 2 miles. 4.0: Description of Point Cook Handicap, Williamstown. 4.20: Football match, North v. South. 4.45: Description of Esplanade Welter, mile, Williamstown. 4.50: Transmission from the North Hobart Oval, football match, North v. South, described by Sid Jones. 5.0: All sporting results to hand. 5.10: Close down.

EARLY EVENING SESSION.

6.0: All sporting results to hand. 6.30: "Uncle David." 7.0: Answers to letters and birthday greetings, by "Uncle David." 7.15: News session.

EVENING SESSION.

7.30: Roy Johnson will speak on "Manual Training." 7.45: J. M. Counsel will speak on "European Affairs." 8.0: Chimes. 8.6: A special studio concert. 10.0: Chimes. 10.1: News session. Close down.

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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.
10.40: Studio music.
11.0: From the Cathedral Church of St. Andrew—Special Thanksgiving Service for the recovery of His Majesty the King.
12.15 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.
4.10: 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.
6.2: S. H. Bowden will speak on "Chester, the Walled City."
6.20: Phyllis Broadbent, soprano—
(a) "The Star" (Rogers).
(b) "Little Bunch of Snowdrops" (Phillips).
6.27: Kathleen Roe, pianist.
6.37: Florence Yates, contralto.
6.44: Phyllis Broadbent, soprano—
(a) "Hark, Hark, the Lark" (Schubert).
(b) "Caro Mio Ben" (Giordani).
6.51: Florence Yates, contralto.
7.0: From the Lyceum Hall, Pitt Street—The Evening Service, conducted by the Central Methodist Mission.
8.30: From the Studio: Weather report.
8.31: Sydney Burchall, baritone—by arrangement with J. C. Williamson, Ltd.
8.38: Lindley Evans, pianist.
8.50: Leonore Gotsch, soprano.
8.57: Athos Martelli, 'cellist—
"Chanson Plaintive" (Trindelli).
9.4: Madame Evelyn Grieg, dulcitone.
9.11: Sydney Burchall, baritone.
9.18: Lindley Evans, pianist.
9.30: Leonore Gotsch, soprano.
9.37: Athos Martelli, 'cellist.
9.44: Madame Evelyn Grieg, dulcitone.
9.51: Columbia Kolster Reproducer Recital.
10.28: Late weather report.
To-morrow's programme.
10.30: National Anthem. Close.

2BL

MORNING SESSION.

Announcer: A. C. C. Stevens.

- 11.0: G.P.O. chimes. From Newtown Methodist Mission: Morning Service, conducted by Rev. A. E. Walker—
Hymn 4—Methodist Hymn Book.
Prayer.
Hymn 868.
Psalm 19.
Solo—Miss Bertha Reynolds.
Children's Talk—Rev. A. E. Walker.
Children's Choir—Hymn.
Scripture Reading.
Offering and Anthem.
Hymn 456.
Address—Rev. A. E. Walker.
Hymn 479.
Benediction.
12.15 approx.: From the Studio—"Sun" news service.
12.30: Studio music.
2.30: G.P.O. chimes. Close.
AFTERNOON SESSION.
Announcer: Basil Kirke.
3.0: G.P.O. chimes. Popular music.

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.

EVENING SESSION.

Announcers: Basil Kirke and G. Vern Barnett.

Accompanist: G. Vern Barnett.

6.0: Children's Session, conducted by Uncle Bas.

6.30: From the Newtown Congregational Church—

Organ and Orchestral Recital—Organist, Mr. Allan Weekley; Orchestral Leader, Miss Howsen.

Orchestra: "Poet and Peasant" Selection (Suppe).

Orchestra: "Traumerei" (Schumann).

Orchestra: "Misevère," from "Il Trovatore" (Verdi).

Organ Solo: "Berceuse" (Jocelyn).

7.0: Evening Service, conducted by Rev. Mearns Massie—

Call to Worship—Doxology.
Short Prayer. Gloria (chanted).
Hymn No. 78—"Father in High Heaven Dwelling."

Scripture Lesson—Pastor.
Healing Prayer.

Hymn No. 42—"Sowing in the Morning." Messages to Sick Friends.

Announcements. Questions for June.
Offertory Anthem: "Sun of My Soul" (by Joseph Adams).

Hymn No. 23, "O Love that Will Not Let Me Go."

Solo, "God is Our Refuge" (Ward Stephens).

Silent Prayer.
Sermon, "A Message to the Mystified"—Rev. Mearns Massie.

Hymn No. 33, "The Old, Old Story." Benediction.

Retiring—Hymn No. 41, "The Son of God."

8.30: From the King's Cross Theatre: Organ Recital by Joseph Wayne.

8.50: From the Studio: Gerald Walenn, violinist.

8.57: From the King's Cross Theatre: Organ Recital by Joseph Wayne.

9.17: From the Studio: Muriel Barlow, contralto.

9.24: From the King's Cross Theatre: Organ Recital by Joseph Wayne.

9.44: From the Studio: Gerald Walenn, violinist.

9.51: Muriel Barlow, contralto

9.58: To-morrow's programme

10.0: National Anthem. Close.

2GB

10.15: Organ music from St. Alban's Church, Regent Street, Sydney. 10.30: Morning service from St. Alban's Church. 12: Close down. 3.0: Musical session. 5.30:

Children's session, by Uncle George. 7.0: Lecture from Adyar House. 8.0: Music from studio. 8.15: Sacred concert from Adyar House. Uebel-Lechleiter piano.

8.23: Mr. T. G. Campbell, tenor. 8.30: Mr. Gregory Valentine, violinist. 8.38: Miss Florence Gordon, contralto. 8.45: Mr. Cecil Chaseling, baritone. 8.52: Uebel-Lechleiter piano. 9.0: Weather report. 9.1: Mr. T. G. Campbell, tenor. 9.18: Mr. Gregory Valentine, violinist. 9.16: Miss Florence Gordon, contralto. 9.23: Uebel-Lechleiter piano. 9.28: Mr. Cecil Chaseling, baritone. 9.35: Close down.

2UW

10.30 a.m.: Music and request numbers. 1 p.m.: Close down. 5.30 p.m.: Children's hour, conducted by Uncle Jack. 6.0: Close down. 7.0: Musical programme. 10.30: Close down.

Interstate Programmes, Sun., June 16

3LO

MORNING SESSION.

10.30: Bells from St. Paul's Cathedral. 10.45: Express train information. British Official wireless news from Rugby. News from yesterday's papers. 11.0: Morning Service from Independent Church, Collins Street, Melbourne—Thanksgiving Service for the King's recovery: Hymn 553, National Anthem, Prayer and Lord's Prayer (chaunted). Scripture Lesson. Anthem, "Let the People Praise Thee" (Bremer). Hymn 557, "Lord, while for all mankind we pray." Prayer. Anthem, "Lord, Thou hast been Our Refuge" (Blair). Notices. Offerings. Hymn 559, "When Oceans Part, O Lord, Unite." Sermon, Rev. A. Penny Evans. Hymn 48, "Our God, Our Help in Ages Past." Benediction. 12.15: Close down.

AFTERNOON SESSION.

2.0: Sonora Recital of the world's most famous records. 3.0: From Central Mission, Wesley Church: Pleasant Sunday Afternoon. Chairman, Rev. Dr. S. J. Roban. King's Thanksgiving Service. Hymn No. 113, "All People that on Earth do Dwell." Prayer. Orchestral Selection, Mr. G. N. Williams, conductor. Hymn No. 114, "God Bless Our Native Land." Solo, Mr. J. Alexander Browne. Orchestra. Solo, Mr. J. Alexander Browne. Notices. Offering. Orchestra. Address. National Anthem. Benediction. Orchestra. 4.50: Close down.

EARLY EVENING SESSION.

5.45: Shipping information. 5.47: Answers to letters and birthday greetings, by Billy Bunny. 6.25: "Brother Bill's" talk. 6.45: Adult Birthday Greetings. 8.47: Bells from St. Paul's Cathedral.

EVENING SESSION.

7.0: Evening Service from St. Paul's Cathedral—Hymn. A. and M. Sentence. Exhortation. Absolution. The Lord's Prayer. Versicles and Responses. Psalms—10th Evening. 1st Lesson. Magnificat. 2nd Lesson. Nunc Dimittis. The Apostles' Creed. Collects. Anthem. Prayers. Hymn. Sermon—The Dean. 1.1.1. The Benediction.

NIGHT SESSION.

8.30: The Mozart Trio—Prof. Rachmanoff, piano; David Zisserman, cello; and Peter Bornstein, violin, of the Anna Pavlova Company—Trio in D Minor (A. Arensky). "Allegro Moderato." "Scherzo." 8.48: Eileen Starr, soprano—"Romance" (Debussy). "If You Have Nought to Say" (Fritz Hart). 8.55: A. Rachmanoff, piano—"Ballade in A Flat" (Chopin). 9.5: Colin Thomson, tenor—"Where'er You Walk" (Handel). "The Little Hill" (Gleeson). 9.12: Peter Bornstein, violin—"Melody" (Gluck). "Waltz in A" (Brahms). "Mazurka" (Wieniawsky). 9.19: Eileen Starr, Soprano—"Abi Lo Bo"—"The Magic Flute" (Mozart). "Spring" (Henschel). 9.26: David Zisserman, cello—"Elegy" (Faure). "Waltz" (Euhlan). "Guitarre" (Moszkowski). 9.43: The Mozart Trio—"Elegie—Adagio" (Arensky). "Allegro Non Troppo." 9.58: News service. Announcements. 10.0: God Save the King.

3AR

MORNING SESSION.

11.0: Morning service from the Wesley Church, Central Mission, conducted by Rev. J. H. Cain. Doxology. Invocation; Hymn, "Praise My Soul, the King of Heaven." Prayer, Lord's Prayer, Hymn, "O God of Bethel by Whose Hand." Scripture Reading, Solo, Children's Address, Anthem, Announcements and Offering, Hymn, "Let Us with a Glad-some Mind." Sermon, Short Prayer, Hymn, "God is With Us. God is With Us." 12.15: Close down.

AFTERNOON SESSION.

3.0: Eddie Fitch at the Wurlitzer. 4.0: Close down.

EVENING SESSION.

5.0: "Brer Rabbit" has some stories for the children. 5.30: Close down.

NIGHT SESSION.

7.0: An hour with Orchestras. Organs, and Oratorios. 8.0: The Strad Trio (Cecil Parkes, violin; Myra Montague, piano; and Frank Johnston, cello)—"Trio in G Major" (Mozart). Allegro. Andante Variations. Allegretto. 8.15: The Sundowners (Tom Semple, tenor; Herbert Sanderson, baritone; Robert Gillard, bass; and Robert Allen, alto)—"Songs My Mother Taught Me" (Dvorak). Robert Gillard (bass)—"The Banjo Song" (Homer). "My Little Banjo" (Dichmont). 8.22: The Strad Trio—Cecil Parkes (violin)—"Ave Maria" (Schubert).

"Caprice No. 13" (Paganini) "Zabstendo" (Sarasate). 8.32: The Sundowners—Quartettes, "O Peter, Go Ring Dem Bells" (Frey). "Deal Away" (Frey). "Old Black Joe" (Foster). 8.40: The Strad Trio—Trio, "Chant Sans Paroles" (Tchaikowsky). "Stryrene" (Lavater). 8.50: Wesley Church Choir, under the direction of William G. James, transmitted from Wesley Church, Lonsdale Street, Melbourne—"How Lovely are Thy Messengers" (Mendelssohn). "I Will Lay Me Down in Peace" (Noble) (unaccompanied). "Lead, Kindly Light" (Buck) (unaccompanied). "Inflammatus," "Stabat Mater" (Rossini). Soloist, Mademoiselle Saffo Arnav. 9.10: J. Howlett Ross will speak on "Brunton Stephens." 9.30: The Sundowners (Tom Semple and Herbert Sanderson, tenor and baritone)—"Onaway, Awake, Beloved" (Cowan). Robert Allen (alto)—"Vale of Dawn" (Wood). Quartette, "My Heart's in the Highlands" (Prothers). 9.37: The Strad Trio (Frank Johnston, cello)—"Adagio" (Popper). "Harlequin" (Popper). 9.52: News service. Announcements. 10.30: God Save the King.

4QG

MORNING SESSION

11.0: The complete morning service will be relayed from All Saints' Church of England, Wickham Terrace. 12.15: Close down.

AFTERNOON SESSION

3.15: The band concert will be relayed from the Botanic Gardens. 4.30: Close down.

EARLY EVENING SESSION

6.30: Greetings to little listeners and replies to letters.

NIGHT SESSION

7.30: The complete evening service will be relayed from All Saints' Church of England, Wickham Terrace. At the conclusion of the church service the concert by Brisbane Municipal Concert Band will be relayed from Wickham Park. 9.30: Close down.

5CL

MORNING SESSION.

10.45: Carillon of bells from Adelaide Town Hall. 11.0: Chimes. 11.1: Divine Service, from Rose Park Congregational Church. 12.10: From 5CL Studio. British official wireless news. 12.15: Close down.

AFTERNOON SESSION.

3.0: Chimes. 3.1: A pleasant Sunday afternoon service, from Maughan Church, Franklin Street. 4.0: Close down.

EVENING SESSION.

8.0: Chimes. 8.1: Birthday greetings, correspondence, songs, and stories. 8.30: "The Bird Lady" and "The Sunshine Songsters." 7.0: Chimes. 7.1: Senior Birthday League greetings. 7.2: A religious service from Maughan Methodist Church, Franklin Street.

NIGHT SESSION.

8.20: Unley Orchestra (winners of Australian Championship), Conducted by Norman Sellick—"Ballet Egyptienne" (Luligni). 8.30: Mrs. Leslie Matthews, contralto—"The Link Divine" (Piccolomini). "To Music" (Schubert). 8.35: Unley Orchestra—"The Student Prince" (Romberg). 8.45: Mousty Skinner, baritone—"Song of the Toreador," from "Carmen" (Bizet). "Trees" (Rasbach). 8.52: Unley Orchestra—"Chinese Temple Garden" (Ketyby). 9.2: Mrs. Leslie Matthews, contralto—"The Enchantress" (Hatton). "Praise of God" (Beethoven). 9.9: Unley Orchestra—"La Traviata" (Verdi). 9.20: Mousty Skinner, baritone—"Even Bravest Hearts," from "Faust" (Gounod). "For You Alone" (Geehl). 9.26: Unley Orchestra—Selection, "Patience" (Sullivan). 9.41: P. H. Nicholls—"In an interesting talk on "Unrealised Possibilities." 9.52: General news service. Announcements. 10.0: Close down.

6WF

10.25: Tune in. 10.30: Special half hour for the enthusiastic listener-in. 11.0: Morning service relayed from Wesley Church. 12.15: Close down. 3.30: Tune in. 3.35: Musical programme from the studio, including pianoforte solos by Mr. Leslie Judson. 4.30:

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Close down. 6.45: Tune in. 6.48: Bedtime stories by Mr. Robert Edmondson, assisted by Misses Winnie and Betty Edmondson. 7.15: Music. 7.30: Evening service relayed by the Church of Christ, Perth. 8.45: Band Concert relayed from Queen's Hall, Perth. Items by the Perth City Band, conducted by Mr. Les. M. Price. 10.5: God Save the King.

104.5 METRE TRANSMISSION.

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 8.45 p.m.

7ZL

MORNING SESSION.

11.0: Transmission from Melville Street Methodist Church, Hobart. 12.30: Close down.

AFTERNOON SESSION.

3.0: Transmission from St. David's Cathedral, Hobart. 4.30: Close down.

EARLY EVENING SESSION.

6.15: Chorus singing (conductor, Trevor M. Morris, of Children's Special Service Mission). 6.45: Bertha Southey Brammall.

EVENING SESSION.

7.9: Transmission from the Memorial Congregational Church, Hobart. 8.25: A programme of sacred and classical music by J. M. Counsel. 9.45: News session. 9.50: Close down.

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. Cochrane.

7.0: "Big Ben" and announcements. 7.2: Official weather forecast; rainfall; river reports; temperature; astronomical memoranda. 7.7: "Sydney Morning Herald" summary. 7.12: Shipping intelligence, mail services. 7.15: Studio music. 7.25: Investment market, mining sharemarkets; metal quotations, wool, sales, breadstuffs markets, Inter-State markets, produce markets. 7.40: Studio music. 8.0: "Big Ben." Close.

MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.3: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: The 2FC Racing Commissioner, late sporting news. 10.45: A talk on "Home Cooking and Recipes," by Miss Ruth Furst. 11.0: "Big Ben." A.P.A. and Reuter's Cable services. 11.5: Close down.

MIDDAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.2: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Summary of news. "Sydney Morning Herald." 12.10: Rugby Wireless news. 12.13: A reading. 12.30: Studio music. 1.0: "Big Ben." Weather intelligence. 1.3: "Evening News" midday news service. Producers' Distributing Society's market report. 1.15: From the Aeolian Hall: Lunch Hour Chamber Music Recital—The Sverjensky Instrumental Ensemble. 1.50: From the Studio: Stock Exchange, second call. 1.52: Studio music. 2.0: "Big Ben." Close.

AFTERNOON SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: The Book Lover's Corner. 3.0: "Big Ben." From Palling's Concert Hall—A Recital by the Students of Rex de Cairo Rego. 4.0: "Big Ben." From the Studio—A reading. 4.28: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.35: From the Studio—Joyce Harding, soprano. 4.42: Popular music. 4.45: Stock Exchange, third call. 4.47: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 5.0: "Big Ben." Close.

EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The Children's Session, conducted by the "Hello Man." Letters and stories. Music and entertainment. 6.30: Daley's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Rugby Wireless news. 6.55: Late sporting news. 7.0: "Big Ben." Late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "The Bell Boy" (Clarke), (b) "Moonlight on the Lake" (Von Blon), (c) "Tannhauser" (Wagner), (d) Gavotte, "Mignon" (Thomas), (e) "Andante in G" (Baltiste), (f) "Pickin' Cotton" (Henderson), (g) "An Bord d'un Russian" (Boisdefre).

EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Popular music.
7.45: Programme announcements.
7.48: A Record Recital.
8.0: "Big Ben." Studio Orchestra, conducted by Horace Keats—
(a) "The Belle of New York" (Kerker)
(b) "Danse Macabre" (Saint-Saens).
8.20: Radio Male Quartet—
(a) "The Viking's Song" (Coleridge Taylor).
(b) "The Soldier's Farewell" (Kinkel).
8.30: Dagmar Roberts, pianist.
8.40: Peggy Dunbar, contralto—
(a) "She is Far from the Land" (Lambert).
(b) "Pirate Dreams" (Hueter).

8.47: Studio Orchestra, conducted by Horace Keats—

(a) Suite, "At Gretna Green" (Fletcher).
(b) "An Eastern Romance" (Haines).

9.2: Weather report.

9.3: True Tales of a Journalist, told by C. C. Faulkner.

9.18: Albert Cazabon, Musical Director of the Prince Edward Theatre—
Violin Solos.

9.28: Radio Male Quartet—

(a) "The Long Day Closes" (Sullivan).

(b) "Holy Night" (Beethoven).

(c) "Kentucky Babe" (Giebel).

9.38: Dagmar Roberts, pianist.

9.48: Peggy Dunbar, contralto—

(a) "O Thank Me Not" (Mallinson).

(b) "Eventide" (Mallinson).

(c) "There Lies the Warmth of Summer" (Mallinson).

9.55: Albert Cazabon, Musical Director of the Prince Edward Theatre—
Violin Solos.

10.5: Radio Male Quartet—

Selected.

10.15: Studio Orchestra, conducted by Horace Keats—
"Rhapsodie on Themes by Franz Liszt" (arr. Artok).

10.28: Late weather and to-morrow's programme.

10.30: National Anthem. Close.

2BL

MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: G.P.O. chimes. Weather report—State and metropolitan. 8.3: 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 silent friends. 10.0: G.P.O. chimes. Close down.

MIDDAY SESSION.

Announcer: A. C. C. Stevens.

11.0: G.P.O. chimes. 2BL Women's Sports Association Session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's Session, conducted by Mrs. Cranfield. Talk on "Infant Welfare," by Nurse May. 12.0: G.P.O. chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "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. Note: Race results will be broadcast by arrangement with "Sun" Newspapers.

AFTERNOON SESSION.

Announcer: A. C. C. Stevens.

Accompanist: Kathleen Roe.

3.45: G.P.O. chimes. Popular music. 4.0: G.P.O. chimes. Gladys Carlisle, soprano—
(a) "Deeper My Love" (Del Riego), (b) "I Did Not Know" (Trotter). 4.7: A talk by Captain Fred Aarons. 4.22: Hazel M'Pherson, contralto—(a) "Be You a Comin'" (Sanderson), (b) "Sapphic Ode" (Brahms) 4.28: Popular music. 4.39: Gladys Carlisle, soprano—(a) "A Blackbird Singing" (Head), (b) "Beloved" (Head). 4.46: "Sun" news service. 4.50: Popular music. 5.0: G.P.O. chimes. Hazel M'Pherson, contralto—(a) "Less Than the Dust" (Woodforde-Finden), (b) "When All was Young" (Gounod). 5.17: Popular music. 5.33: Racing resume. 5.37: Features of the evening programme.

EARLY EVENING SESSION.

Announcer: Basil Kirke.

5.40: Children's Session, conducted by Uncle Bas. Music and entertainment. Letters and stories. 6.30: "Sun" news and late sporting. 6.40: 2BL Dinner Quartette—(a) "Polish Dance" (Scharwenka), (b) "My Angelina" (Wayne), (c) "A Selection of Songs" (Anderson), (d) "Everywhere I Look" (Carraw). 7.7: Australian Mercantile, Land, and Finance Co.'s report. Weather report and forecast, by courtesy of Government Meteorologist. Producers' Distributing Society's fruit and vegetable market report. Grain

and fodder report ("Sun"). Dairy Produce report ("Sun"). 7.25: Mr. Flim and Miss Pam in advertising talks, handy hints, and nonsense. 7.53: An Ad. Special. 7.55: Programme and other announcements.

EVENING SESSION.

Announcer: Basil Kirke.

Accompanist: G. Vern Barnett.

8.0: From the King's Cross Theatre: The King's Cross Theatre Orchestra, conducted by Max Saunders.

8.20: From the Studio—"The Best Anecdote" Competition.

Those participating are: C. R. Hall, C. N. Baeyerzt, "Bringing" W. Robertson, C. Price Congrave. The Storyteller.

8.55: Maggie Foster and Francis Lea, in popular numbers.

9.5: Weather report.

9.6: Charles Lawrence, entertainer.

9.15: Sydney Calland, baritone—

(a) "My Rosary for You" (Ball).

(b) "Ten Thousand Years From Now" (Ball)

9.33: Maggie Foster and Francis Lea, in popular numbers.

9.43: Charles Lawrence, entertainer.

9.53: Sydney Calland, baritone—

(a) "Son of Mine" (Wallace).

(b) "Melisande in the Wood" (Sanderson).

10.0: G.P.O. chimes. From the King's Cross Theatre—The King's Cross Theatre Orchestra, conducted by Max Saunders.

10.28: From the Studio—Late weather report.

10.30: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

10.57: From the Studio—To-morrow's programme

10.59: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

11.30: National Anthem. Close.

2GB

10.0: Music. 10.10: Happiness talk by A. E. Bennett. 10.20: Music. 10.30: Women's session, by Miss Helen J. Beegling. 11.45: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.50: Music. 3.30: Close down. 5.30: Children's session, by Uncle George. 7.0: Short talk by Mrs. Jordan. 7.30: Feature story. 8.0: Miss Kathleen Cracknell, contralto. 8.8: Instrumental Trio. 8.15: Mr. Cecil Houghton, tenor. 8.22: Symphony Orchestra. 8.30: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.35: Miss Doris Robinson, soprano. 8.45: Address. 9.0: Weather report. 9.3: Edith Lorand Orchestra. 9.10: Miss Kathleen Cracknell, contralto. 9.20: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.25: Symphony Orchestra. 9.35: Mr. Cecil Houghton, tenor. 9.45: Instrumental Trio. 9.50: Miss Doris Robinson, soprano. 10.0: Instrumental music. 10.30: Close down.

2UW

MIDDAY SESSION

12.30: Request numbers. 1.0: G.P.O. clock and chimes; request numbers. 7.45: Homecraft by Pandora. 1.40: Music and request numbers. 2.30: Close down. 4.30: Musical programme.

EVENING SESSION

5.30: Children's hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes; request numbers. 7.45: Wireless talk, hints, and advice, by Mr. E. Homfray. 8.0: Music. 9.0: G.P.O. clock and chimes; comments on Foreign Affairs by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

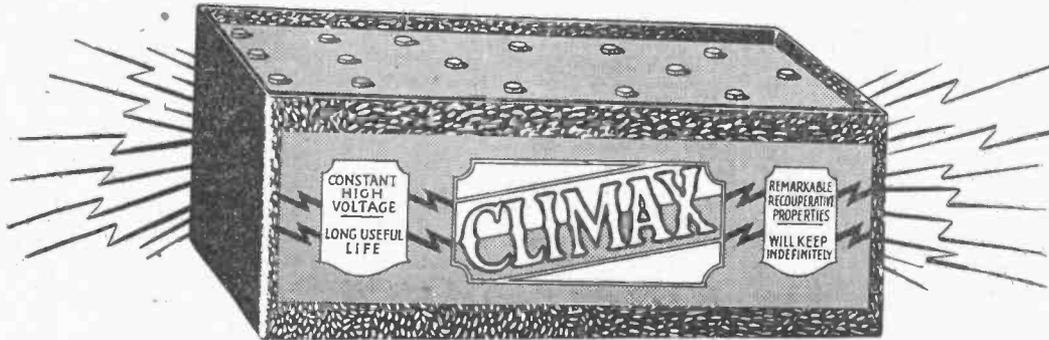
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DEALERS, WRITE FOR DISCOUNTS

Interstate Programmes, Monday, June 17

3LO

EARLY MORNING SESSION.

7.15 to 8.15: See Friday.

MORNING SESSION.

11.0: 3LO's Breakfast Surprise. Rissolos. 11.5: Miss Olga Parker—Stories to Tell the Children—Some Hero Stories. 11.25: Miss Doreen Berry will continue her series of Travel Talks—"A Corner of Spain," describing Barcelona and Spanish Customs. 11.45: Under the auspices of the National Safety Council of Australia, H. J. Book will speak on "Some Aspects of Safety."

MIDDAY NEWS SESSION.

12.0: Melbourne Observatory Time Signal. 12.1: British Official Wireless news from Rugby. Reporter's and the Australian Press Association cables. "Argus" news service. 12.15: Newmarket stock sales. Entries for the market for Tuesday, Wednesday and Thursday by the Associated Stock and Station Agents, Bourke Street, Melbourne. 12.20: Community Singing. Conductor, G. J. Mackay. Assisted by Ern. Hall's Radio Revellers, with Hugh Huxham; Madeline Knight, Bert Ray, The James Girls. 12.40: Stock Exchange Information. 12.43: Community Singing resumed. 1.45: Meteorological Information. Weather forecast for Victoria, New South Wales, South Australia and Tasmania. Ocean forecast. River reports. Rainfall.

AFTERNOON SESSION.

2.15: The Station Orchestra—Overture, "Der Freischütz" (Weber). "Told at Twilight" (Hueter). 2.25: Madeline Knight, contralto—Old Time Ballads. 2.32: The Station Orchestra—Romantic "Cello" (G. Major). 2.44: Edna Laird, soprano, bass—"What the Half-d' Bosun Said" (Harrhy); "Tops! Halcyons" (Harrhy). 2.51: The Station Orchestra—"March Slave" (Tschakovsky). 3.0: The Station Orchestra and Chorus—"The Old Maid" (Harrhy). Produced by Alice Best. Cast: Walter Raymond, G. S. Cockerill; Sybil Raymond (his wife), Alice Best; Perkins (her maid), furnished room. The appointments include a table on which are paper knife, writing materials, song work basket and novels. 3.31: The Strat Trio (Cecil Parkes, violin; Myra Montague, piano; Frank Johnston, cello). Trio in G Major" (Mozart); Allegro; Andante with Variations; Allegretto. 3.43: Edna Laird, soprano—"Nymphs and Shepherds" (Purcell); "Vieni che pol sereno" (Gluck). 3.50: Cecil Parkes, violin, Ave Maria" (Schubert); "Capriccio No. 13" (Paganini); "Zapatenado" (Sarastate). 4.0: Wilfrid Thomas, bass—"Vision Fugitive" (Massenet); "Impatience" (Schubert). 4.7: Frank Johnstone, cello—"Adagio" (Popper); "Harlequin" (Tschakovsky); "Strytierre" (Lavater); "Polk Tunes and Fiddle Dance" (Pletcher). 4.28: Madeline Knight, contralto, Old Time Ballad. 4.32: The Strat Trio—A Southern Tone Piece" (Hosmer). 4.41: Edna Laird, soprano—"The Little Brown Owl" (Sanderson); "The String of Pearls" (Phillips). 4.48: The Station Orchestra—Selection "Little Boy Blue" (Berens). 4.51: News service. Stock Exchange information. 5.3: Close down.

CHILDREN'S HOUR.

5.45: "Billy Bunny" is going to start to-night with a story for the little ones and then another for the bigger ones. 6.15: Birthday greetings and answers to letters by "Billy Bunny." 6.50: Captain Donald MacLean will tell the older boys (and perhaps the girls) a thrilling adventure story.

EVENING SESSION.

7.15: Stock Exchange information. 7.15: Market reports. 7.30: News session. 7.43: Birthday greetings. 7.45: Old Time Piece. 7.48: Under the auspices of the Department of Agriculture, B. P. Krone, Fruit Packing Instructor, will speak on "Picking and Packing Citrus Fruit." 8.0: A Maker of History.

NIGHT SESSION.

8.1: Programme announcements. 8.2: The Station Orchestra—"Symphony No. 2 in A Minor" (Saint-Saens). 8.12: Madeline Knight, contralto—Old Time Ballads. 8.19: The Station Orchestra—"Pas des Fleurs" (Delibes). "Reverie" (Drumml). 8.29: Wilfrid Thomas, bass—Fifteen Minutes—Three Just So Stories" (Germann). Two Arias from "Don Giovanni" "Mozart"—"The Catalogue Song" "The Serenade." 8.44: The Strat Trio—"When Thy Blue Eyes" (Lussen). "Les Adieux" (Beethoven). "Vivace" (Gordard). Iva Hattenbus, violin—"Hymn to the Sun" Rimsky-Korsakoff-Kremler). The Trio—"To a Wild Rose" (Macdowell). "To a Water Lily" (Macdowell). "Hungarian Dance" (Brahms). 9.15: Royal Victorian Liedertafel (Conductor, J. Sutton Croft; Deputy, P. J. F. Whitehead)—Part Song—"Hymn of the Goths," by request (Liebe). Unaccompanied Part Songs—"Night" (Julien Harrison). "Break, Break, Break" (arr. Mansley Greer). Part Song—"The Oath of the Forest" (De Rille). Unaccompanied Part Songs—"Cradle Song" (Macdowell). "Moonlight" (Spicker). Cantata, "Progs Cantata," by request (Hernberg). 9.45: The Station Orchestra—"A Musical Jig-Saw" (Aston). 9.55: News service. British Official Wireless news.

from Rugby. Meteorological Information Announcements.

10.5: The Station Orchestra—Fantasia, "Merry Wives of Windsor" (Nicolai). 10.15: Madeline Knight, contralto—Old Time Ballads. 10.22: The Station Orchestra—Selection, "Madame Pompadour" (Leo Fall). 10.33: Ern. Hall's Radio Revellers, with Hugh Huxham—"My Mother's Eyes" (Baer). "Next to Me I'll Give Me Next to You" (Bito). "Anywhere is Heaven" (Brady). "Down Where the Sun Goes Down" (Jones). "Can You Blame Me?" (Goodwin). "I Want to be Alone with Mary Brown" (Lecelle). "Ya Comin' Up To-night, Huh?" (Lewis). "Forty-seven Ginger-headed Sailors" (Barony). "High Tension" (Lies). 11.30: God Save the King.

3AR

MORNING NEWS SESSION.

10.0 to 10.58: See Friday.

MORNING MUSICAL SESSION.

11.0 to 12.30: See Friday.

AFTERNOON SESSION.

3.0: Ballads. 3.30: The Jodal Trio. "Tri-o," "Andante" (Tschakovsky). "Gavotte" (Lind), Piano "Elegie" (Rachmaninov). Trio, "Serenade" (Gonod). "Gavotte" (Martial). "Moorish Night Song" (Rasch). 4.0: Melody. 4.30: Close down.

EVENING SESSION.

8.0: News service. Acceptances and barrier positions for the Epsom Races, to be held on Wednesday, 19th instant.

NIGHT SESSION.

8.0: E. C. H. Taylor will speak on "School Life and School Sport." 8.15: Under the auspices of the Historical Society of Victoria, A. S. Kenyon will speak on "The Pastoral Era and Crisis of 1841." 8.28: Did You Know That? 8.40: The Radio Revellers, with Hugh Huxham—"My Fieurette" (Kimbrough). "Avalon Town" (Gron). "Shake that Thing" (Jackson). 8.49: Skipper Francis (baritone)—"You Can't Stop the Sun from Rising" (W. Francis). 8.54: The Radio Revellers—"Glad Rag Doll" (Ager). "You are Wonderful" (Ash). "There ought to be a Law Against That" (Friend). 9.1: James Girls in a Bright, Breezy Budget. 9.4: The Radio Revellers—"The Rose of Flanders" (O'Hagan). "Oh, Ya Ya" (Frich). "Stars are the Windows of Heaven" (Mafie). 9.13: Bert Ray (comedian)—"I've Been Vaccinated Once." 9.16: The Radio Revellers—"Only a Rose" (Friml). "That's Her Now" (Ager). "Song of the Vagabonds" (Friml). 9.25: Skipper Francis (baritone)—"The Best Little Spot" (W. Francis). 9.28: The Radio Revellers—"Japan" (Klener). "Constantinople" (Gron). "Minnetonka" (Wallace). 9.37: The James Girls in Mirth and Melody. 9.40: The Radio Revellers—"Fireworks" (William). "Roses of Yesterday" (Berlin). "Jo-Anne" (Ward). 9.47: Bert Ray (comedian)—"My Nose has Stopped Kicking." 9.50: The Radio Revellers—"Gypsy" (Gilbert). "Honey" (Simons). "Flower of Love" (Ruby). 9.57: Skipper Francis (baritone)—"Australia Will be There" (W. Francis). 10.0: The Radio Revellers—"When the Right One Comes Along" (Gilbert). "Wear a Hat with a Silver Lining" (Sherman). "One Alone" (Romberg). 10.7: The James Girls in a Merry Musical Mixture 10.10: The Radio Revellers—"Just Give the Southland to Me" (Sissel). "The Desert Song" (Romberg). "A Room with a View" (Coward). 10.20: News service. Announcements. 10.30: God Save the King.

4QG

MORNING SESSION

7.43 to 8.30: See Friday.

MIDDAY SESSION

1.0 to 2.0: See Friday.

AFTERNOON SESSION

3.0 to 4.30: See Friday.

EARLY EVENING SESSION

6.0 to 7.45: The Children's Music Corner, conducted by "The Music Man."

NIGHT SESSION

8.0: The Studio Orchestra—Overture, "Triumphale" (Hermann). 8.8: Monument and Harrow. Another Argument. 8.23: Colling (Barbers). "To-night" (Bardo). "Bid Me to Love" (Barnard). 8.30: The Studio Orchestra—Two-step, "The Fireflies Pignie" (Goldstein).

8.35: Ben Cloirec (tenor). "Coolan Dhu" (Leon). 8.40: Harry Borradaile (eclectonist). "The Palace of Ice" (Lecelle). "The Election Meeting." 8.45: Annie Adams (soprano). "Moonlight" (Gordon). "See, Love, I Bring The Flowers" (Lambert). 8.54: Harry Borradaile (eclectonist). "The Denominational Garden." (By request). 9.0: The metropolitan weather forecast. 9.1: The Studio Orchestra. Ballad, "Will You Forgive?" (Ketchby). 9.8: Mrs. Fitzgerald (contralto). "Little Pink Rose" (Bond). "Last Night" (Marzials). 9.14: Harry Humphreys (eclectonist). A recital of poems by Jack Mathieu (Brisbane) blind poet. "The Headless Horseman." "The Day at Bolling Downs." "Which Star Mother?" 9.29: The Studio Orchestra. "Muslin Rag" (Kaufmann). 9.35: Mrs. W. Wilkinson (eclectonist). Monologues, "Comfort"; "Left Out." 9.40: Ben Cloirec (tenor). "Haytime" (Jackson). 9.45: The Studio Orchestra. A quarter of an hour's dance music. 10.0: News; weather. Close down.

5CL

MORNING SESSION.

11.0 to 2.0: See Friday.

AFTERNOON SESSION.

3.0: Chimes. 3.1: Station Quartette, suite, "Cobweb Castle" (Lehmann). "Dance Russe" (Tschakovsky). 3.10: Mollie Warden, soprano. "Obstinatien" de Fontenay. "Go Not, Happy Days" (Frank Bridges). 3.17: Arthur Douglas, 3.23: Station Quartette, fox-trot, "Rio Rita" (Terney), valse, "Nannette" (Herbert). 3.30: Sydney Witham, tenor. "I Fitch My Lonely Chimes" (Coates). "Invictus" (Huhn). 3.38: Vera Rogers, trumpeter, "Reverie No. 2" (Clay). "Wonderful Rose" (Black). 3.42: Irene Ainsley, contralto. "Absent" (Metcalf). "Walla Pot" (Alfre Kild). 3.48: Station Quartette, "Musical Jigsaw" (Aston), serenade, "Springtime" (Korner). 3.58: Mollie Warden, soprano. "Blackbird's Song" (Cyril Scott). "Morning" (Nellie Giddigan). 4.5: Arthur Douglas, 4.11: Station Quartette, Intermezzo, "Birds and Butterflies" (Vely). "Serenade d'Amour" (You Blon). 4.20: Sydney Coltham, tenor. "Love's Appeal" (Richards). "Garden of Brittany" (Gulliland). 4.26: Geoff. Goldsworthy, cellist. "Romance" (Esmond). "Londonderry Air" (traditional). 4.32: Jennie Black, contralto. "Afton Water" (Hume). "Lochnagar" (traditional). 4.38: John Lemmon, flautist. "Bolero" (Pessard). "Concerto for Flute and Harp" (Sassol). 4.44: Station Quartette, selection "Rosie O'Reilly" (Cohen). "La Cinquintaine" (Marie). 4.55: Stock Exchange information. 5.0: Close down.

EVENING SESSION.

8.0: Chimes. 8.1: Birthday greetings, correspondence, songs and stories, by "Aunt Peggy." 8.30: Dinner music. 8.45: Sporting news from near and far. 7.1: Senior Birthday League greetings. 7.2: Stock Exchange information. 7.3: General market reports. 7.10: Under the auspices of the South Australian Agricultural Department, Mr. R. Fowler (manager, Blackmore's Nurseries, Orchard) will speak. 7.30: The 5CL Twinkler Boys' Club.

NIGHT SESSION.

8.0: Chimes. 8.1: Hindmarsh Municipal Band. Conducted by J. Radcliffe. Overture, "Anna Bolena" (Donizetti). 8.11: Mollie Warden, soprano. "A Hundred Mountain Miles Away" (Hubert Evey). "Three Green Bounets" (Guy D'Hardelet). 8.18: Bert Woolley, banjoist. 8.23: Alex. Gausby, bass-baritone. "Up from Somers" (Sanderson); "Dress of Long Ago" (Garus). 8.30: Hindmarsh Municipal Band: Selection, "Lady of the Rose" (Gilbert). 8.40: Arthur Douglas. 8.45: Phyllis Everett, contralto; "Dawn" (Pearl Curran); "Music when soft voices die" (Bosley). 8.53: Hindmarsh Municipal Band: Waltz, "Golden Grain" (Trussell). 9.0: G.P.O. Chimes. 9.1: Meteorological information, including Sensephore tides. 9.2: Overseas grain report. 9.3: A one-act play, produced by Beryl Alfred. Characters: Fanny, Beryl Alfred; Alfred, Frank Johnstone; Ethelbert, Jack Burgess; Della, Kathleen Wishart. Scene: The Waiting Room of the Hotel Cosmopolitan. A handsome apartment, exquisitely furnished. Fanny is dark, petite and pretty. Alfred is tall, fair, and clean-shaven. Alfred enters. 9.18: Hindmarsh Municipal Band: March, "Beacon Royal" (Gordon); fox trot, "That's her now" (Ager). 9.24: Mollie Warden, soprano; "The Little Damsel" (Ivor Novello); "I love the Moon" (Paul Rubens). 9.31: Bert Woolley. 9.36: Alex. Gausby, bass-baritone; "Harlequin" (Sanderson); "An Emblem" (Thompson). 9.43: Hindmarsh Municipal Band: Military fantasia, "Trooping the Colors" (Holloway). 9.53: Arthur Douglas. 9.59: Phyllis Everett, contralto; "Greetings" (Hawley); "Boat Song" (Harriet Ware). 10.6: Hindmarsh Municipal Band: Idyll, "The Glow Worm" (Lincke); march, "Ballarat City" (Hume).

10.15: General news service; British Official wireless news; meteorological information; announcements.

10.20: Sporting service.

10.30: Recordings.

11.0: Close down.

6WF

10.0: Tune in. Gramophone and phonograph records from the studio. 11.0: Close down. 12.30: Tune in. 12.35: Markets, news, etc. 1.0: Time signal. 1.1: Weather bulletin supplied by the Meteorological Bureau of Western Australia. 1.3: Panatrophe Hour relayed from Messrs. Musgrove's, Ltd., Lyric House, Perth. 2.0: Close down.

3.30: Tune in. 3.35: Music and song relayed from the Carlton Cafe. 4.30: Close down.

8.45: Tune in. 8.48: Bedtime stories for the Kiddies by Uncle Duffy. 7.5: Light music by the Perth Piano Trio. 7.30: Commercial and general information. 7.45: Talk by Lieutenant-Colonel Le Souef, director Zoological Gardens, South Perth. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Violin solos by Miss Ziphah Feldman, Pianiste, Miss Audrey Dean. 8.30: Talk, "Mystic Java," by Mr. J. Cowie of the Orient Touring Company. 8.50: Late news items by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements; ships within range announcements; late weather bulletin. 9.5: Programme continued from His Majesty's Theatre, being a relay of the Metropolitan Gleemen's Concert, conducted by Mr. J. Leckie, Mus.B. 10.30: Close down.

104.5 METRE TRANSMISSION.

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 8.45 p.m.

7ZL

MIDDAY SESSION

11.30 to 1.30: See Friday.

AFTERNOON SESSION

3.0: Chimes. 3.4: Weather information. 3.5: His Master's Voice. 3.15: Recording by Reginald Fort, organ solo, Gerda Hull, soprano, Fritz Kreisler, violin solo. Light Opera Co. San Francisco Symphony Orchestra. Harry Dearth, bass. Johann Strass and Symphony Orchestra. Toscha Seidel violin solo. International Concert Orchestra. 4.15: "Aunt Edna." 4.30: Close down.

EARLY EVENING SESSION

6.15: Recordings. 6.30: Uncle David. 7.0: Answers to letters and birthday greetings, by Uncle David. 7.15: News service; Railway auction produce sales. held at Railway. Announcements.

EVENING SESSION

7.30: Under the auspices of the Tasmanian University, J. Field will speak on "Improvements in Railway Transport." 7.45: Geo. Collis Tasmania's champion wrestler, will speak on "Physical Culture." 8.0: Chimes. 8.15: Transmission from the Memorial Congregational Church, Brisbane, Street, Hobart. A concert programme, arranged by James Marsh. Artists: Thomas Coward, David Dolman, Mrs. Harry Gibbons, James Marsh. 9.45: News session. 10.1: Close down.

Sunday Morning Wireless Talk

A SERIES of Sunday morning wireless talks that give promise of unusual interest was commenced on June 9, and will be continued every Sunday morning for three months, between 9 and 10 o'clock from 2GB. The speakers—Miss Mary Rivett, M.A., and Mr. Victor E. Cromer—are engaged in very practical work, dealing with certain of man's finer forces and their relation to health, alike of body and of mind. This work, by reason of the somewhat remarkable effects associated with it, is attracting ever-increasing attention in Sydney, and demonstrations have recently been held in the Sydney Town Hall before many thousands of keenly-interested spectators. Films showing the nature of the effects achieved in various conditions of paralysis, rheumatoid arthritis, and many other diseases, have also been screened in a large number of the Sydney metropolitan and the New South Wales country theatres.

ROLA REPRODUCERS

In "Wireless Weekly" dated May 31, a description was given of the above units, in which the prices were erroneously quoted at £3/15/ and £6/6/, instead of £5/5/ and £7/15/, the latter being the correct prices for the latest models. United Distributors, Ltd., Castlereagh Street, are the distributors.

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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.

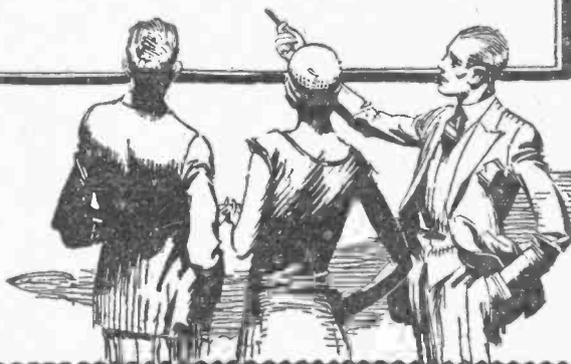
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1 Valve	One W.P. 31½-Volt or One W.P. 42-Volt	18 to 42	—
2 Valves	One W.P. 63-Volt or Two W.P. 42-Volt	63 to 84	No. 126
3 Valves	Two W.P. 42-Volt or Two H.D. 45-Volt	84 to 90	No. 126
4 and 5 Valves . . .	Two H.D. 45-Volt or Two S.S. 45-Volt	90	No. 126
4, 5, or more Valves or Power Valves	Two or Three S.S. 45-Volt	90 to 135	One or more No. 126 or one W.P. 31½.

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Local Programmes, Tuesday, June 18

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. 7.15: Studio music. 7.25: Investment markets; mining sharemarkets; metal quotations; wool sales; breadstuffs markets; inter-State markets; produce markets. 7.40: Studio music. 8.0: "Big Ben." Close down.

MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: Last-minute sporting information by the 2FC Racing Commissioner. 10.40: Studio music. 10.50: Pianoforte reproduction. 11.0: "Big Ben"; A.P.A. and Reuter's cable services. 11.5: Close down.

MIDDAY SESSION.

Announcer: A. S. Cochrane.

Note.—Race results from Gosford will be transmitted as received. 12.0: "Big Ben" and announcements. 12.2: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Summary of news. "Sydney Morning Herald." 12.10: Rugby wireless news. 12.13: A reading. 12.30: Studio music. 1.0: "Big Ben"; weather intelligence. 1.3: "Evening News" midday news service; Producers' Distributing Society's market report. 1.28: Stock Exchange, second call. 1.30: Popular music. 2.0: "Big Ben." Close.

AFTERNOON SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: The Book Lovers' Corner. 3.0: "Big Ben"; popular music. 3.30: Nancye Rouse, violinist—"Introduction et Tarantelle" (Wienawski). 3.37: Studio items. 3.45: A reading. 4.10: Nancye Rouse, violinist—"Largo" (Handel). 4.17: Popular music. 4.30: J. G. Lockley will tell "How Mosman Got Its Name." 4.45: Stock Exchange, third call. 4.47: Studio items. 5.0: "Big Ben." Close.

EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The children's session, conducted by the "Hello Man," assisted by Aunt Elly; letters and stories; music and entertainment. 6.30: Dalgety's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Rugby wireless news. 6.55: Late sporting news. 7.0: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Valse Coppella" (Delibes), (b) "Early in the Morning" (Phillips), (c) Chopiniana" (arr. Finck), (d) "Forest Fancies" (Haines), (e) "Away in the West of Ireland" (Anderson), (f) "Every Moon's a Honeymoon" (Wimbrow).

EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Popular music.
7.45: Programme announcements.
7.48: A record recital.
8.0: "Big Ben"; Burwood Band, conducted by C. Pike—
(a) March, "Honest Toll" (Rimmer).
(b) Selection, "The Desert Song" (Hume).
8.20: Ambrose Bourke, baritone.
8.27: Lindsay Biggins, pianist.
8.37: Vera Keogh in a sketch.
8.52: Burwood Band, conducted by C. Pike.
(a) Euphonium solo, "Old Folk at Home" (Hartmann).
(b) Fox-trot, "Me and the Man in the Moon" (Schoenberger).
(c) Trombone solo, "The Winning Spurt" (Clough).
9.12: Ambrose Bourke, baritone.
9.17: Lindsay Biggins, pianist.
9.37: Burwood Band, conducted by C. Pike.

(a) Selection, "The Water Carrier" (Cherubini).

(b) Fox-trot, "All By Yourself in the Moonlight" (Wallis).

(c) March, "Roll Away, Bett" (Humer).
9.57: Grace Quine, popular vocalist.

10.4: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

10.19: From the Studio—Grace Quine, popular vocalist.

10.27: Late weather report.

10.29: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

10.57: From the Studio—To-morrow's programme.

10.59: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

11.30: National Anthem. Close.

2BL

MORNING SESSION.

Announcer: A. C. C. Stevens.

8 a.m.: G.P.O. chimes; weather report, State and metropolitan. 8.3: 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 Silent Friends. 10.0: G.P.O. chimes; close down.

MIDDAY SESSION.

Announcer: A. C. C. Stevens.

11.0: G.P.O. chimes; 2BL Women's Sports Association session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield; talk on the work of the St. John Ambulance Association by Sister Parry. 12.0: G.P.O. chimes; special ocean forecast and weather report. 12.3: Pianoforte reproduction. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "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. Note.—Race results from Gosford will be broadcast by arrangement with "Sun" newspapers.

4.22: A musical item. 4.25: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.35: From the Studio—Iris Kidd, soprano: (a) "Happy Song" (Del Riego), (b) "In my Bouquet of Memories" (Akst), (c) "Happy Days and Lonely Nights" (Fischer). 4.42: "Sun" news service. 4.47: Popular items. 4.51: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 5.0: G.P.O. chimes; Iris Kidd, soprano: (a) "Collinette" (Coningsby Clarke), (b) "A Precious Little Thing Called Love" (Davies and Coutts). 5.7: Pianoforte reproduction. 5.17: Studio music. 5.33: Racing resume. 5.37: Features of the evening's programme.

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programme in which every item is composed and performed by Australians.

8.1: A few remarks by the President, Mr. Arthur Crocker.

8.6: Instrumental Trio—
Piano: Charles Davis, conductor.
Violin: Tessie Marshall.
Cello: Rosamund Cornford.

8.16: Two Australian songs, composed by
Glen M'Garrity—
(a) "The Linen for Pillow" (words by
Mary Gilmore).
(b) "I Hear my Lover's Sleigh,"
Muriel O'Malley, contralto.

8.24: Steele Rudd—
Excerpt from "On Our Selection."
"Dad and Mum Wayback"

8.34: Lillian Mitchell, soprano—
(a) Song composed by Norbert Wentzell.
(b) Song composed by Eba Sattler.

8.42: Dulcie Deamer—
"Cavemen, Past and Present."

8.50: Charles Davis, pianoforte solos—
(a) "Romance" (Charles Davis).
(b) "In the Meadows" (Charles Davis).
(c) "Ballade in C Minor" (Charles Davis).

(d) Composition by Alfred Hill.
G.P.O. chimes; weather forecast; announcements.

9.2: Wilfrid Thomas, basso.

9.10: Radio sketch, written by Claire Byrne.
"The Spider."
Characters: Clair Byrne, Pansy Sims,
Myra Leard, Andrew Walder.

9.18: Songs by Signor Milano Gartl.

9.26: Ethel English, Australian Authoress,
will give one of her fairy stories.

9.34: Esther Kahn, composer-pianist, in a
group of her own compositions.

9.42: Muriel O'Malley, contralto—
(a) Song by Warrington Reynolds.
(b) Song by Declina Emery.
(c) Song by Hilda Bevege.

9.50: Annie Wentzel in two original poems—
(a) "The Way to the Stars."
(b) "Bravo! The Kangaroo."

9.57: Lillian Mitchell, soprano—
Two Australian songs.

10.4: Tessie Marshall, violinist—
Two Australian compositions.

10.12: Wilfrid Thomas, basso—
Two Australian Songs.

10.20: Selection of songs composed by Oswald Anderson, and arranged for
pianoforte by Charles Ryder.

10.28: To-morrow's programme.

10.30: National Anthem; close down.

2GB

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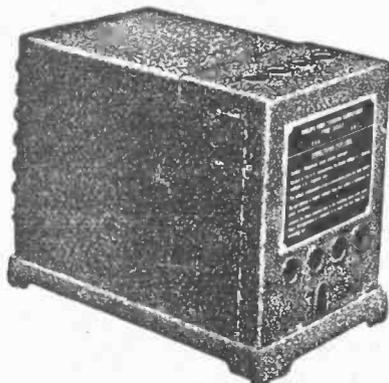
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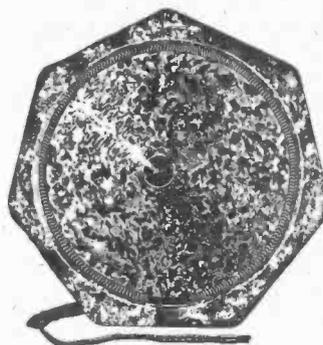
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Interstate Programmes, Tuesday, June 18

3LO

EARLY MORNING SESSION.

7.15 to 8.15: See Friday.

MORNING SESSION.

11.0: 3LO's Luncheon Recipe, Savory Meat. 11.5: Miss E. Noble will speak on "Gas Cookery" 11.25: Mrs. Dorothy Silk will speak on "Homecrafts." 11.45: Miss Rose Brown will continue her "Recollections of Rolf Boldrewood."

MIDDAY NEWS SESSION.

12.0: Melbourne Observatory Time Signal. 12.1: British Official Wireless news from Rugby. Reuters and the Australian Press Association cables. Argus news service. 12.15: New-market stock sales. Official report of the sheep market by the Associated stock and station agents, Bourke Street, Melbourne. Luncheon Music. 12.20: The Station Orchestra Overture, "Iphigenia" (Wagner). "Spring Blossoms" (Herson). 12.30: Madoline Knight (contralto), Old-time ballads. 12.37: Stock Exchange information. Prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. 12.45: The Mozart Trio (Prof. Rachmanoff, piano; David Zisserman, cello; Walter Brown, violin). Soloists of the Anna Pavlova Company. 1.45: Close down.

AFTERNOON SESSION.

2.15: The Radio Revellers, "Silvering" (Doody). "Promise Me" (Van Boeth). "Ready for the River" (More). "My Stormy Weather Fall" (Plantados). "What'll You Do?" (Cohn). "Best Ray (comedian). "My Man Dooley." 2.37: The Radio Revellers. "Do You?" (Plantados). "Pa's Old Hat" (Guy). "Colombo" (Nichols). "I Fell Head Over Heels in Love" (Thayer). "Sonny Boy" (Brown). 2.50: Gwen Hart (soprano). "Butterfly Wings" (Phillips). "One Hour" (Langsiaz). 2.57: The Radio Revellers "Sally of My Dreams" (Kernell). "You're a Real Sweetheart" (Friend). "The Little Trot" (Penco). "Where the Cot-Cot-Cotton Grows" (Klien). Selected. 3.40: The James Girls. Fifteen Minutes of Triviality. 3.25: The Radio Revellers. "Cinnamon Cak" (Bernard). My Pleurette" (Kimbrough). "Avalon Town" (Brown). "Shake that Thing" (Jackson). "Glad Rag Doll" (Ager). 3.40: Skipper Francis (baritone). "If I Could Start My Life Again" (Francis). "The Mustard Club" (Francis). 3.47: The Radio Revellers. "You Are Wonderful" (Ash). "There ought to be a Law Against That" (Friend). "The Rose of Flanders" (O'Hagen). "Oh, Ya, Ya" (Frich). 4.0: Bert Ray (comedian). "More About Dooley." 4.7: The Radio Revellers. "Japan" (Klenner). "Constantinople" (Male). "Only Roses" (Friml). "That's Her Now" (Ager). "Song of the Vagabonds" (Friml). 4.20: Gwen Hart (soprano). "To a Miniature" (Brahe). "Sylvan" (Ronald). 4.27: The Radio Revellers. "Kismet" (Klenner). "Constantinople" (Carlton). "Minnetonka" (Wallace). "Fireworks" (Williams). 4.40: Skipper Francis (baritone). "Roses" (Weatherly). "In the Garden of My Heart" (Roma). "A Ball" (Ager). 4.51: The Radio Revellers. "Roses of Yesterday" (Berlin). "Jo-Anne" (Ward). "4.55: News service. Stock Exchange information. 5.5: Close down.

EARLY EVENING SESSION.

6.0: "Bobby Bluegen." Answers to letters and birthday greetings. 6.30: Captain Donald MacLean will continue his series of adventure stories for boys. 6.45: "Little Miss Kookaburra" has a story for the little ones.

EVENING SESSION.

7.5: Stock Exchange information. 7.15: Market reports. 7.30: News session. 7.43: Birthday greetings. Out of the Past. 7.46: J. M. Rae, M.A., lecturer in psychology to the extension Board, will speak on "The Psychology of Laughter." 8.0: A Maker of History.

NIGHT SESSION.

8.0: Programme announcements. 8.15: The 32nd Battalion Band—March, "Smile" (Ord Hume). 8.27: Wilfrid Thomas, baritone—"I Love Thee" (Grieg). "Who is Sylvia?" (Schubert). 8.34: The 32nd Battalion Band—Intermezzo, "Rendezvous." 8.44: The James Girls in "A Conception of Coon Melodies." 9.0: "Victoria Concordia Crescit," or Victory Increases by Concord. Presentation of trophies to the winning band. 9.15: Concert by the Heidelberg Choral Society (Conductor, Frederick Earp; pianist, Louise Dean)—Old English Madrigals—"In Going to My Lonely Bed" (R. Edwards, 1560). "To Take the Air a Bonny Lass Was Walking" (John Farmer, 1600). Viva Bethel—"Shepherd, Thy Demeanor Vary" (Thos. Brown, 17th Cent.). Part Songs—"Summer is sieumen in" (13th Cent. round). "The Leather Bottle." Men's voices of the Heidelberg District Musical Society. Somersetshire Folk Song, Frederic Earp—"Young Herchard" (Traditional). Louise Dean, pianist. MIDDAY SESSION. "Huntsman's Music of the 17th Century." The Choir, Old English Madrigal—

"All Creatures Now Are Merry-minded" (John Benet, 1614). 9.45: The 32nd Battalion Band—Cornet solo, "Raid of Picardy." 9.55: News service; meteorological information; British official wireless news from Rugby; Eric Welch's selections for Epsom races to-morrow. 10.3: The Jodel Trio—"Serenade" (Reissiger). "By the Brook" (Boisdreffe). "Prelude" (Chopin). John Simons, piano—"Study in C" (Rubenstein). "Trio, "Andante Religioso" (Thome). "March Miniature" (Kreiser). 10.30: "Skipper" Francis, baritone—"White Wings" (Winter). "The Miner's Dream of Home" (Dryden). 10.37: The Radio Revellers—"Flower of Love." "Honey" (Simons). "Gypsy." 10.47: "Skipper" Francis, baritone—"Australia Will Be There" (W. W. Francis). "The Song That Reached My Heart" (Jordan). 10.54: Our Great Thought for To-night is: "To Succeed, Use Your Stumbling Blocks as Stepping Stones." 10.55: Ern. Hall's Radio Revellers, with Hugh Huxham—"Jo-anne" (Ward). "Roses of Yesterday" (Berlin). "Fireworks" (Williams). "Minnetonka" (Wallace). "Constantinople" (Carlton). "Japan" (Klenner). "Song of the Vagabond" (Friml). "That's Her No Ager). "Only a Rose" (Friml). 11.30: God Save the King.

3AR

MORNING NEWS SESSION.

10.0 to 10.59: See Friday.

MORNING MUSICAL SESSION.

11.0: Famous Recordings. 12.30: Close down.

AFTERNOON SESSION.

3.0: The Strad Trio (Frank Parkes, violin; Myra Montague, piano; and Cecil Johnston, cello). Trio, "Op. 15, P. Major" (Rubinstein). Con moto. Moderato. 3.2: Cec. Parkes (violin) and Myra Montague (piano). "Sonata P. Major" (Mozart). Theme and Variations. Menuetto. Allegro con brio. 3.51: Ballads. 4.11: The Strad Trio. Trio, "F. Schop" (Beethoven). "Gavotte from Mignon" (Thomas). "Serenade" (Herbert). "Tango" (Albeniz). "Passepied" (Debussy). 3.46: Ballads. 4.30: Close down.

EVENING SESSION.

6.0 to 7.20: See Friday.

NIGHT SESSION.

8.0: Madame Soward. "A Talk to Students of French." 8.15: A. W. Jackson will speak on "Cool." 8.30: Studio presentation of "The Cingalee," an original musical play by James Tanner. Lyrics by Adrian Ross and Percy Grebank. Music by Lionel Monckton. Additional lyrics and numbers by Paul Rubens. Musical Directress, Madame Ethel Ashton. Assisted by the Station Orchestra (conductor, Frederick Hall). The story of a Cingalee maiden and a tea plantation in Ceylon. Hon. Harry Vereker (a tea planter) John Donovan Stuart Olsson Sir Peter Loftus (High Commissioner and Judge of Ceylon) and Mrs. Edgar Chapple Bobby Warren (a pupil of Vereker) T. James Lloyd Nanaya (a Cingalee girl) Rose Clayden Peggie Sabine Merle Griffin Nalooma Zelma King Sattambi Jean McVee Mysheelah Maisie Lennox Somo (four girls on Vereker's plantation). Anny Loftus (Sir Peter's daughter) Maud Luke Lady Patricia Vereker Try Garth 9.30: J. Howlett Ross will speak on "Waterloo Day." The Discus Ensemble present "The Battle of Waterloo" (arr. E. Eckerberg). As played by the Regimental Band of H.M. Grenadier Guards. 9.54: The Station Orchestra—Selection, "The Daughter of the Regiment" (Donizetti). 10.2: Madoline Knight (contralto)—Old-time Ballads. 10.10: The Station Orchestra—Selection, "The Vagabond King" (Friml). 10.20: News service. Announcements. 10.30: God Save the King.

4QG

EARLY MORNING SESSION.

7.43 to 8.30: See Friday.

MORNING SESSION.

11.0 to 12.0: See Friday.

MIDDAY SESSION.

1.0 to 2.0: See Friday.

AFTERNOON SESSION.

3.0 to 4.30: See Friday.

EARLY EVENING SESSION.

6.5 to 7.45: Lecture—"Photography," by Mr. F. L. South (manager, Kodak, Ltd.).

NIGHT SESSION.

8.0: A classical programme by the Richmond Party. Hilda Bennett, Otille Cloake, Jack Ellis—Instrumental Trio, "Scherzo" (Arensky). Les. Little (baritone)—"Be Feve" (Ireland). Otille Cloake (cellist)—"Musette" (Offenbach). Mrs. W. F. Hamilton (mezzo-soprano)—"Deh Vieni, non tardar" (Mozart). "Saper vorreste" (Verdi). Hilda Bennett (violinist)—"Andante" (Horace Pousard). Mrs. W. F. Hamilton (mezzo-soprano) and Les. Little (baritone)—"Home-ward to You" (Eric Coates). Vocal duet, selected. Jack Ellis (pianist)—"Scherzo" (York Bowen). Otille Cloake (cellist)—"Meditation in C" (Squire). Mrs. W. F. Hamilton (mezzo-soprano) and Les. Little (baritone)—"Scene de Ballet" (C. de Beriot). Les. Little (baritone)—"Come to the Ball" (Martini). Jack Ellis (pianist)—"The Jugglers" (Moszkowski). "Caprice Espagnol" (Moszkowski). Mrs. W. F. Hamilton and Les. Little—Vocal duet, selected. Hilda Bennett, Otille Cloake, Jack Ellis—Instrumental trio, selected. Accompanist: Jack Ellis.

PART II.

9.0: Metropolitan weather forecast. 9.15: The Honolulu Serenaders, in selected Hawaiian numbers. 9.8: The Albert Trio—A quarter of an hour's fun. 9.21: The Honolulu Serenaders—More Hawaiian music. 9.28: Dorothy Sanders (soprano)—"Danny Boy." 9.30: Aeolian selection (by request)—"In a Clock Store." 9.33: Eileen Crow (soprano)—"My Desire" (Cadmam). 9.37: The Honolulu Serenaders—Selected melodies. 9.45: A short recital of electrically reproduced records. 10.0: News; weather; "Queenslander" bi-weekly news service for country listeners. Close down.

5CL

MORNING SESSION.

11.0 to 2.0: See Friday.

AFTERNOON SESSION.

3.0: Chimes. 3.1: Station Quartette: Selection. "Lina" (Rubens); "Indian Dance" (Friedman); "Eve" (C. E. Hughes); "A. A. Will talk to you about Jealousy" 3.25: Station Quartet: "Fantasy" (Tom King). 3.31: Mollie Warden, soprano: "My Lonesome Celia" (Old English); "Bonnie Wee Thing" (Old Scotch). 3.37: Mollie Warden, soprano: "Moonlight and Roses" (More); "But can I say after I say I'm Sorry" (Donaldson). 3.43: Station Quartet: "Fairly Realm" (Jalowitz); "The Little Silver Ring" (Chambers); "My mother bids me bind my hair" (Haydn); "Have you seen but a White Lily Grow?" (Anon). 4.0: Station Quartet: Oriental "Japanette" (Hall); 4.10: Vern Rogers, tenor: "The Rosary" (Nevin); "That's how I believe in You" 4.16: Jack Blake, baritone: "Te-le-le Dream Girl" (Reg. Low); "I Don't Care What You Used to be" (Dubin and McHugh); 4.22: Station Quartet: Selection; "The Bohemians" (Puccini); soprano, "Love Fancies" (Zemocnik); 4.33: Pratin Bair and Gladys Rice: "Sometimes I'm Happy" from "Hit the Deck" (Tomants); "Hallelujah" from "The Desert Song" (Grieg); 4.39: Gen'l Ode-worthy, cellist: "Salut d'Amour" (Elgar); "Boy without words" (Mendelssohn). 4.45: Eileen Boyd, contralto: "My Ain Foll" (Mills and Lemon); "The Little Silver Ring" (Chambers); 4.51: Station Quartet: "Star of the Orient" (Nelson). 4.55: Stock Exchange information. 5.0: Close down.

EVENING SESSION.

6.0: Chimes. 6.1: Birthday greetings, correspondence, songs and stories by "The Watlie Lady." 6.8: Mr. Horace Perkins, Mus.Bac., A.M.U.A., assisted by Miss Mary Edson, soprano, will conclude his series of talks on "How to be Made." 6.45: Sports service, including Tattersall's acceptances and selections for Mount Gambier to-morrow. 7.1: Senior Birthday League Greetings. 7.2: Stock Exchange. 7.6: General Market Reports. 7.10: Despatches of the Workers' Educational Association. Mrs. H. Burton will speak on "Further Thought on Democracy." 7.25: Mr. R. C. Bald, Ph.D. (Lecturer in English at the Adelaide University) will give the last of his talks on "Charles Lamb." 7.45: Dr. H. Basedow in an interesting Australian talk.

NIGHT SESSION.

8.0: Chimes. 8.1: Red Hot Peppers Dance Band, conducted by Tom Dorling—"Sweethearts on Parade" (Lombardo). "Who Knows," "Away from You" (Ager). 8.10: "Gwen Cole" (contralto); "The Old Street Song" (Fritz Kreisler); "The Wreath" (Kenneth Rae). 8.17: Angelo Demodena, mandolinist, will play to you. 8.23: Howard Rogers, bass-baritone: "Out on the Deep" (Hermann Lohr); "Invictus" (O'Hara).

- 8.30: Red Hot Peppers Dance Band: "No One" (Ager); "Just give that South Land to me" (Revel); "Rose of Flanders" (O'Hagan).
- 8.40: Mollie Warden, soprano: "Dawn Gentle Flower" (Sterndale Bennett); "The Rain Fairy" (Claude Arundale).
- 8.47: Arthur Douglas.
- 8.54: Red Hot Peppers Dance Band: "Sweet Sue Just You" (Young); "Roses of Yesterday" (Berlin).
- 9.1: Meteorological information, including Semaphore tides.
- 9.2: Overseas grain report.
- 9.3: Gwen Collett, contralto: "O, That we Two were Maying" (Nevin); "A Little Song of Friendship" (Pettitt).
- 9.10: Angelo Demodena, mandolinist, will play to you again.
- 9.16: Howard Rogers, bass-baritone: "Kings of the Deep" (Jude); "Monarch of the Wood" (Therry).
- 9.23: Red Hot Peppers Dance Band: "All by yourself in the Moonlight" (Wallis); "Someday You'll Say O.K." "Beloved" (Kahn).
- 9.30: Mr. P. H. Nicholls, assisted by Miss Bessie Francis, will present "Goodbye to Shakespeare." Conclusion of Shakespearean series.
- 9.45: Red Hot Peppers Dance Band: "Look in the Mirror" (Stept); "Still as the Night" (Bohm); "Mary" (Donaldson).
- 9.55: Mollie Warden, soprano: "Spring's a lovable Lady, Dear" (Keith Elliott); "Bird Lullaby" (Wilfred Sanderson).
- 10.2: Arthur Douglas.
- 10.9: Red Hot Peppers Dance Band: "Sally of my Dreams" (Kernell); "Sunny Boy" (Jolson).
- 10.15: General news service; British Official wireless news; Meteorological information; announcements.
- 10.20: Sporting service supplied by "SILVIUS."
- 10.30: Red Hot Peppers Dance Band: "I fell head over heels in love" (Thayer); "Mississippi Mud" (Barrie); "A Room with a View" (Coward); "It goes like this" (Friend); "There are eyes" (Keyes); "Revenge" (Young); "Melody of Love" (Donaldson); "There's a rainbow round my shoulder" (Jolson); "Que-rida" (Simon); "Mexican Serenade" (Terese).
- 11.0: Close down.

6WF

- 10.0: Tune in. Gramophone and phonograph records from the Studio. 11.0: Close down. 12.30: Tune in. 12.35: Markets, news, etc. 1.0: Time signal. 1.1: Weather bulletin supplied by the Meteorological Bureau of Western Australia. 1.3: Luncheon music relayed from the Primrose Cafe De Luxe. 2.0: Close down.
 - 3.30: Tune in. 3.35: Pianoforte solos by Miss Audrey Dean; violin solos by Mr. Frank Romaine. 4.30: Close down.
 - 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Perth Piano Trio. 7.30: Commercial and general information. 7.45: Talk by Dr. Batty, B.A., LL.B. 8.0: Time signal. 8.1: First weather bulletin. 8.3: A relay from His Majesty's Theatre of the first half of the Metropolitan Gleemen's Concert, conducted by Mr. J. Leckie. Mus.B. 8.50: Late news items by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements; ships within range announcement; late weather bulletin. Programme continued from the Studio. Items by the Radio Trio, comprising Miss E. Waterman (cello), Miss Audrey Dean (piano), Mr. H. T. Newton (violin). 10.30: God Save the King.
 - 10.5 METRE TRANSMISSION.
- Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 6.45 p.m.

7ZL

MIDDAY SESSION

11.30 to 1.30: See Friday.

AFTERNOON SESSION

- 3.0: Chimes. 3.4: Weather information. 3.15: Orchestral recordings, including San Francisco Symphony Orchestra, Paul Whiteman and His Orchestra, James Liddy (tenor), Cellini (tenor), Kenneth Walters (baritone). 4.15: An educational talk on "Pig Industry in United States of America." 4.30: Close down.

EARLY EVENING SESSION

- 6.15: Recordings. 6.30: "The Story Lady." 7.0: Answers to letters and birthday greetings by Uncle David and the Story Lady. 7.15: News session.

EVENING SESSION

- 7.30: Geo. Lewis, of the Hobart Savings Bank, will tell "The Story of the Hobart Bank."
- 7.45: W. E. Fuller will speak on "Library Lapses and Library Lists."
- 8.0: Chimes. 8.15: A programme of dance music by Reg. Jones (interspersed with gramophone records). Reg. Jones and His Orchestra, "Mother's Eyes" (Eber); "Promise" (Booth); "I Loved You Then" (Mendoza); Jack Lumsdaine and Len Maurice, "That's My Mammy" (Perse); Reg. Jones and His Orchestra, "I'm Sorry, Baby" (Kahn); "Que-rida" (Simon); "Me and the Man in the Moon"; Aima Gluck, soprano, "Bohemian Cradle Song"; "Song of the Chimes" (Worrell); Reg. Jones and His Orchestra, "I Fell Head Over Heels in Love"; "Happy Days and Lonely Nights"; "If You Want the Rainbow"; Kirby Lunn, contralto, "Love is a Dream" (Pitt); "Boat Song" (Stanford); Reg. Jones and His Orchestra, "Rainbow Round My Shoulder"; "That's Her Now" (Ager); "Cuckoo" (Johansson); Tudor Davies, baritone, "Love and a Riding" (Bridge); "Thou Art Risen, My Beloved"; Reg. Jones and His Orchestra, "Sally of My Dreams" (Kernell); "All by Yourself in the Moonlight"; "Rose of Flanders" (O'Hagan); Cresham Singers, "O, Peaceful Night"; "What Ho! What Ho!"; Reg. Jones and His Orchestra, "Out of the Dawn" (Donaldson); "Lonesome in the Moonlight"; "Beloved" (Kahn); George Rose, baritone, "Plenty of Sunshine," "Send for Me." 9.45: News. 10.1: Close down.

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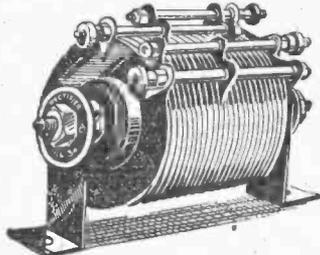
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Local Programmes, Wednesday, June 19

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. 7.15: Studio music. 7.25: Investment market; mining sharemarket; metal quotations; wool sales; breadstuffs markets; Inter-State markets; produce markets. 7.40: Studio music. 8.0: "Big Ben." Close down.

MORNING SESSION.

Announcer: A. S. Cochrane.
10.0: "Big Ben" and announcements. 10.3: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: Last-minute sporting information by the 2FC Racing Commissioner. 10.45: A talk on "Home Cooking and Recipes." by Miss Ruth Furst. 11.0: "Big Ben." A.P.A. and Reuter's cable services. 11.5: Close down.

MIDDAY SESSION.

Announcer: A. S. Cochrane.
Note.—Race results from Ascot. 12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Summary of news, "Sydney Morning Herald." 12.10: Rugby wireless news. 12.13: A reading. 12.30: Studio music. 1.0: "Big Ben"; weather intelligence. 1.3: "Evening News" midday news service; Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Studio music. 2.0: "Big Ben." Close.

AFTERNOON SESSION.

Announcer: Laurence Halbert.
Accompanist: Ewart Chapple.
2.30: Programme announcements. 2.32: A record recital. 3.0: "Big Ben"; popular music. 3.30: Mavis Dearman, soprano. 3.37: James Walker, pianist—(a) "Nocturne in E Flat Major" (Chopin). (b) "Etude in C Major" (Chopin). 3.45: A reading. 4.10: Mavis Dearman, soprano. 4.17: James Walker, pianist—(a) "Soaring from Fantasia Stucke" (Schumann). (b) "Liebestraum" (Liszt). 4.27: C. S. Yarwood will speak on "The Rum Traffic." 4.42: A musical item. 4.45: Stock Exchange, third call. 4.47: Popular music. 5.0: "Big Ben." Close.

EARLY EVENING SESSION.

Announcer: A. S. Cochrane.
5.40: The chimes of 2FC. 5.45: The children's session, conducted by the "Hello Man," assisted by Uncles Ted and Sandy; letters and stories; music and entertainment. 6.30: Dalgely's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Ruer wireless news. 6.55: Late sporting news. 7.0: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Love Everlasting" (Friml). (b) "Melodie" (Rachmaninoff). (c) "Gipsy" (Signorelli). (d) "Die Meistersingers" (Wagner). (e) "London-derry Air" (arr. O'Connor-Morris). (f) "There's a Rainbow" (Jolson).

EVENING SESSION.

Announcer: Laurence Halbert.
Accompanist: Ewart Chapple.
7.40: Popular music.
7.45: Programme announcements.
7.48: A record recital.
8.0: Gladstone Bell—A classical programme—
"Theme and Variations from Trio" (Tschaiakowsky), for violin, cello, and piano—Gladstone Bell, Gerald Walenn, Lindley Evans.
Songs, Spencer Thomas—
"The Self Banished" (Blow).
"My Lovely Celia" (Munro).
"Sigh No More, Ladies" (Aitken).
Piano solo, Lindley Evans—
"Five Pieces" (Balfour Gardiner).
Cello solo, Gladstone Bell, unaccompanied.
"Saratande, Bourree, and Fugue," from "Enite in C, for Cello" (Bach).

9.0: Weather. C. P. Conigrave will give a talk.

Songs, Spencer Thomas—
"Who Is Sylvia?" (Schubert).
"Thou'rt Like a Lovely Flower" (Schumann).
"Serenade" (Brahms).
Violin solo, Gerald Walenn—
"Gavotte" (Rameau).
"Minuett Berenici" (Handel).
"Tambourin" (Gossec).
"Adagio for Two 'Cellos" (Grimm).
Gladstone Bell and Rosamunde Cornford.
Piano solo, Lindley Evans—
"Sonata in D Minor—1st Movement." Op. 31, No. 1 (Beethoven).
10.16: Late evening news service.
10.26: To-morrow's programme.
10.28: Late weather report.
10.30: National Anthem. Close.

2BL

MORNING SESSION.

Announcer: A. C. C. Stevens.
8 a.m.: G.P.O. chimes; weather report. State and metropolitan. 8.3: Studio music. 8.15: News and information service from the "Daily Telegraph Pictorial." 8.45: Studio music. 9.30: Half an hour with silent friends. 10.0: G.P.O. Chimes; close down.

MIDDAY SESSION.

Announcer: A. C. C. Stevens.
11.0: G.P.O. chimes; 2BL Women's Sports Association session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield. 12.0: G.P.O. chimes; special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "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. Note.—Race results from Ascot will be broadcast by arrangement with "Sun" newspapers.

AFTERNOON SESSION.

Announcer: A. C. C. Stevens.
Accompanist: Kathleen Roe.
3.45: G.P.O. chimes; popular music. 4.0: G.P.O. chimes; Lena Murray, contralto—(a) "A Summer Night" (Thomas). (b) "Ply Little Piccaninnies" (Anthony). 4.7: A talk by Basil Kirke. 4.22: Nellie Ferguson, songs at the piano—(a) "Since Mother Bobbed her Hair" (Billie and Charles Hayes). (b) "A Single Cingalee" (Eden and Bennett). 4.29: Studio music. 4.39: Lena Murray, contralto—(a) "The Spirit Flower" (Tipton). (b) "Has Sorrow thy Young Days Shaded" (Moore). 4.46: "Sun" news service. 4.50: Popular music. 5.0: G.P.O. chimes; Nellie Ferguson, songs at the piano—(a) "If We Only Knew" (Andrews and Spurr). (b) "Peter" (Charles and Muriel Scott Gaty). 5.7: Pianoforte reproduction. 5.17: Popular music. 5.33: Racing resume. 5.37: Features of the evening's programme.

EARLY EVENING SESSION.

Announcer: Basil Kirke.
5.40: Children's session, conducted by Uncle Bas; music and entertainment; letters and stories. 6.20: The "Aero" Club, conducted by Mr. Norman, in conjunction with "Wireless Weekly." 6.30: "Sun" news and late sporting. 6.40: 2BL Dinner Quartette—(a) "Die Hydro-paten" (Gungl). (b) "Norwegian Dance" (Grieg). (c) "Grand Trio Concertant" (Vollweiler). (d) "Hindoo Song" (Bemberg). (e) "Hungarian Dance" (Brahms). 7.7: Australian Mercantile, Land, and Finance Co.'s report; weather report and forecast by courtesy of Government Meteorologist; Producers' Distributing Society's fruit and vegetable market report; grain and fodder report ("Sun"); dairy produce report ("Sun"). 7.25: Mr. Pim and Miss Pam in advertising talks, handy hints, and nonsense. 7.53: An Advt. Special. 7.55: Programme and other announcements.

EVENING SESSION.

Announcer: Basil Kirke.
Accompanist: G. Vern Barnett.
8 p.m.: G.P.O. Chimes.
"From the Capitol Theatre—
The Capitol Unit Entertainment.
8.7: From the Studio—
The H. W. Varna Company will produce Bernard Shaw's drama, "Arms and the Man."
Cast:—
Catherine Petkof ... Mrs. Pat Barton
Raina (her daughter) ... Felix Clarke
Louka (her maid) ... Muriel Conner
Captain Fluntschli ... H. W. Varna
Mikola (man servant) ... Foster Dean
Major Petkoff ... William Hume
Major Sergius Saranoff ... H. J. Saller
Act 1.—Raina's bedroom.
Act 2.—In the garden of her father's house.
Act 3.—In the library.
The scene is laid in Bulgaria.
9.7: Weather report.
9.8: Graham and Manning, entertainers.
9.18: From the Capitol Theatre—
Stage presentation, Ted Henkel's Capitol Band and Capitol Ballet.
9.31: From the Studio—
Theodore Atkinson, winner of the baritone section in the recent Radio Eisteddfod.
9.38: Claude Corbett will speak on "General Sporting."
9.53: Theodore Atkinson, baritone.
10.0: G.P.O. chimes.
Graham and Manning entertainers.
10.10: From the Auburn Town Hall—
Cec. Morrison's Dance Band.
10.28: From the Studio—Late weather report, late "Sun" news service.
10.38: From the Auburn Town Hall—
Cec. Morrison's Dance Band.
10.57: From the Studio, to-morrow's programme.
10.59: From the Auburn Town Hall—
Cec. Morrison's Dance Band.
11.30: National Anthem; close down.

2GB

10.0: Music. 10.10: Happiness talk by A. E. Bennett. 10.20: Music. 10.30: Women's session, by Miss Helen J. Beegling. 11.45: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan and Kirby, Ltd. 4.0: Close down. 5.30: Children's session, by Uncle George. 7.0: Music. 7.30: Short talk by Miss Beegling. 7.45: Feature story. 8.0: Miss Heather Kinaird, contralto. 8.7: Instrumental Trio. 8.15: Miss Gladys Verona, soprano. 8.22: Mr. 8.22: Symphony Orchestra. 8.30: Mr. Jack Win and Miss Nora Windle in a dramatic sketch. 8.40: Cello solos. 8.45: Address. 9.0: Weather report. 9.3: Miss Heather Kinaird, contralto. 9.13: Instrumental Trio. 9.23: Mr. Jack Win and Miss Nora Windle in a humorous sketch. 9.33: Symphony Orchestra. 9.43: Mr. Clement G. Williams, baritone. 9.53: Cello solos. 10.0: Dance music. 10.30: Close down.

2UW

MIDDAY SESSION

12.30: Request numbers. 1.0: G.P.O. clock and chimes; music. 1.15: Talk on Homecraft by Pandora. 1.40: Music and request numbers. 2.30: Close down. 4.30: Musical programme.

EVENING SESSION

5.30: Children's hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes; request numbers. 8.0: Music. 9.0: G.P.O. clock and chimes; comments on Foreign Affairs by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

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Interstate Programmes, Wednesday, June 19

3LO

EARLY MORNING SESSION.

7.15 to 8.15: See Friday.

MORNING SESSION.

10.50: Eric Welch will speak on to-day's Epsom Turf Club's races. 11.0: 3LO's Tea-time Tit-bits: Coffee Butter Sponge. 11.5: Miss E. M. Hinder will speak on "The Melbourne Girl—a Citizen of Australia." 11.25: Mrs. M. Callaway Mahood will speak on "The Art of Decoration." 11.45: Mrs. Clarence Weber will speak on "Physical Culture for Women."

MIDDAY NEWS SESSION.

12.0: Melbourne Observatory time signal. 12.11: British official wireless news from Rugby, Reuters, and the Australian Press Association cables; "Argus" news service. 12.15: Newmarket stock sales; cattle sales reports, bullocks and calves, by the Associated Stock and Station Agents, Bourke Street, Melbourne.

LUNCHEON MUSIC.

12.20: The Radio Revellers: "Counting the Milestones" (Tinsley), "Mr. Starlight" (Rose), "Daybreak" (Evans), 12.25: Bert Ray, comedian: "My Nose Has Started Itching," "If Your Face Wants to Laugh." 12.36: Stock Exchange information; prices received this day from the London Stock Exchange by the Australian Mines and Metals Association. 12.42: The Radio Revellers: "Shivering" (Doody), "Promise Me" (Van Cooth), "Ready for the River" (Moret). 12.50: Skipper Francis, baritone: "Sing Me to Sleep," "Parody on Above" (7). 12.55: Bert Ray, comedian: "My Stormy Weather Pall" (Plantadosi), "What'll You Do" (Cohn), "Do You" (Plantadosi). 1.6: Meteorological information; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecast; river reports. 1.12: Bert Ray, comedian: "Don't Make Me Laugh," "How I Met Dooley." 1.19: The Radio Revellers: "Pa's Old Hat" (Guy), "Colombo" (Nichols), "I Fell Head Over Heels in Love" (Thayer). 1.30: Transmission from the Freemason's Hall, Collins Street, Melbourne: Speeches from the Rotary Club luncheon. 2.0: Close down.

AFTERNOON SESSION.

2.15: Description by Eric Welch of the Epsom Plate, 6 furlongs, Epsom Turf Club races. 2.20: The Station Orchestra: "Fantasie Ballet" (Pares). 2.30: Madoline Knight, contralto: "Old Time Ballads." 2.37: Wilfred Thomas, "Secrecy" (Wolf), "Moonlight" (Schumann). 2.42: Description by Eric Welch of the Brush Steeplechase, 2 miles 15 chains, Epsom Turf Club races. 2.50: The Jedal Trio (Alva Hattenbach, violin, Edna Hattenbach, cello, and John Symons piano): The Trio, "Elegie" (Arensky), "Slow Walts" (Carse), "Cello solo," "Lotus Flower" (Schumann). The Trio, "Bourree" (Bach), "March Militaire" (Schubert). 3.12: Description by Eric Welch of two-year-old Handicap, 6 furlongs, Epsom Turf Club races. 3.20: The James Girls, in "Songs of the Orient." 3.35: The Station Orchestra: Overture, "Son and Stranger" (Mendelssohn). 3.42: Description by Eric Welch of Epsom Purse, one mile and a half, Epsom Turf Club races. 3.50: Madoline Knight, contralto: "Old Time Ballads." 3.57: The Station Orchestra: "A Dream of Fopp" (Froben). 4.12: Description by Eric Welch of June Handicap, one mile, Epsom Turf Club races. 4.20: The Station Orchestra: Phantasy, "The Three Bears" (Coates). 4.30: Wilfred Thomas, "The Victor" (Kaur), "When the King Went Forth" (Koenemann). 4.37: The Station Orchestra: "A Southern Tone Poem" (Hosman). 4.43: Description by Eric Welch of Encourage Mile, Epsom Turf Club races. 4.50: News service; Stock Exchange information. 5.0: Close down.

EARLY EVENING SESSION.

6.0: Birthday greetings and answers to letters by "John the Piper's Son." 6.30: H. J. Book will speak. 6.45: "John the Piper's Son": "More Adventures With Nosey Parker."

EVENING SESSION.

7.5: Stock Exchange information. 7.15: Market reports. 7.30: News session. 7.43: Birthday greetings. 7.45: "Out of the Past." 7.48: Under the auspices of the Department of Agriculture. 8.0: A Maker of History.

NIGHT SESSION.

8.1: Programme announcements and 3LO's weekly Tasmanian letter. 8.2: The Station Orchestra—"The Evolution of Dixie" (Lake). 8.12: Piano: "Air and Variations." Ida Scott. Songs: "My Mother Bids Me Blind My Hair," "Mermaid's Song," Muriel Sutherland. String Quartet: Op. 16, 1st and 2nd Movements. Allegro con spirito—adagio. Bertha Jorgensen. Myrtle Robertson, Dorothy Roxburgh, Tasma Tierman. Aris: "With Verdure Clad" ("The Creation"), Muriel Sutherland. Violin and piano Sonata No. 5: Moderato-Minuto—Rondo. Bertha Jorgensen. Duet: "Ye Ladies, Fine and Fair, O Come" ("The Seasons"), Muriel Sutherland and Lennox Brewer. 9.27: Harold Elvies, piano: A recital from the works of Chopin and Debussy. 9.47: Herold Kyng, basso cantante—Selections from the songs of Schubert. 9.57: News service. 10.7: The Station Orchestra—"To-night's the Night" (Rubens). 10.17: "The James Girls"—In a musical story.

10.27: The Station Orchestra—"Blumengeduster" (Blon), "Viennese Serenade" (Hall). 10.37: The Radio Revellers—"Dada, Dada" (Dore), "Oh, Is She Mad at Me?" (Friend), "High Upon a Hilltop" (Baer), "When Love Comes Stealing" (Rapee), "Shin Up the Carryalls" (Nixon), "To-day, To-morrow, Forever" (Nichols), "Snanikli Da" (Carlton), "Who Knows" (Dixon), "Lady of the Morning" (Burton), "That Crazy Over You" (Lewal), "Old Man Sunshine" (Dixon), "Wipin' the Pan" (Baer) (Ravalf), "Guess Who's in Town" (Fisher), "That Stolen Melody" (Fisher), "Lenora" (Gilbert), "Japanese Mammy" (Donaldson). 11.30: God Save the King.

3AR

MORNING NEWS SESSION.

10.0 to 10.59: See Friday.

MORNING MUSICAL SESSION.

11.0 to 12.30: See Friday.

AFTERNOON SESSION.

3.0: Ballads. 3.20: Miriam Licette, Muriel Brunskill, Hubert Eldell, Harold Williams, and chorus, assisted by Felix Weingartner and the London Symphony Orchestra. "Choral Symphony, No. 9, in D Minor" (Beechoven), in 16 parts. 4.10: Ballads. 4.30: Close down.

EVENING SESSION.

6.0 to 7.20: See Friday.

NIGHT SESSION.

8.0: Captain C. H. Peters will speak on "Books, Wise and Otherwise." 8.15: Under the auspices of the Boy Scouts' Association of Victoria, a talk will be given. 8.29: Did You Know That? 8.30: Hawthorn Silver Band—March, "The Blue Bird" (Goffin), "Bruce Small" (tenor)—"Your Tiny Hand is Frozen" (Puccini). Band Selection, "Excerpts from Rossini's Works" (arr. M'Anally). Male chorus "Fraise" (Spofforth). Cornet solo, "Hallstorn" (Rimmer). Hymns, "Lead Me Gently Home" (Thompson), "Rockingham" (Miller). Quartette, "Pass It On" (Sutton). Trombone solo, "The Switchback" (Sutton). "The Man of Sorrows" (Coles). Male Chorus, "Ory Out and Shout" (Bliss). March, "The Glory of the Combat." 9.30: Skipper Francis (baritone)—"When You Come Home" (Souire), "The Village Blacksmith" (Weiss). 9.37: French Brothers (banjoists)—"Sing On, Brother, Sing" (Robinson), "Blue Ridge Mountain Home" (Robinson). 9.44: Bert Ray (comedian) in Komicallities. 9.51: Reg. Brown (piano)—"Rustle of Spring" (Ginding). Marche Honroise" (Kowalski). 10.0: Skipper Francis (baritone)—"Cherry Song" (Meredyth). 10.7: French Brothers (banjoists)—"Me and the Man in the Moon" (Monaco), "There's a Rainbow Round My Shoulder" (Johnson). 10.14: Bert Ray (Comedian)—"Just Fun." 10.21: News session. 10.30: God Save the King.

4QG

EARLY MORNING SESSION

7.43 to 8.0: See Friday.

MORNING SESSION.

11.0 to 12.0: See Friday.

MIDDAY SESSION

1.0 to 2.0: See Friday.

AFTERNOON SESSION

3.0 to 4.30: See Friday.

EARLY EVENING SESSION

6.0 to 7.45: Lecturette, arranged by the Queensland Agricultural High School and College.

NIGHT SESSION

8.0: Alf Featherstone and his Orchestra—Fox-trots—"Dawn and Dew" (Packay), "I Fell Head Over Heels in Love" (Thayer). 8.10: B. F. Kelly (flautist)—"La Sirene" (Terschack). 8.16: Ida Wright (contralto)—"They Say" (Evans). 8.20: Alf Featherstone and his Orchestra—Fox-trots—"I Never Dreamt" (Elks), "My Mother's Eyes" (Baer). 8.30: Harrow and Monmouth—Another argument. 8.45: Phyllis Verner (soprano)—"There are Fairies at the Bottom of Our Garden" (Lehmann). 8.50: Alf Featherstone and his Orchestra—"My Virginia" (Parish), "Bluebird Sing Me a Song" (Hanley). 9.0: Metropolitan Weather forecast. 9.1: Movements of Lighthouse steamers. 9.4: Alf Featherstone and his Orchestra—

Jazz Waltz, "My Angeline" (Wayne). 9.10: R. F. Kelly (flautist)—"Serenade" (Gounod). "Pale Moon" (Knight Logan). 9.16: Ida Wright (contralto)—"Indian Dawn" (Zamecnik). 9.20: Alf Featherstone and his Orchestra—Fox-trots—"Sally of My Dreams" (Kerkell), "Sonny Boy" (Gibson). 9.30: Irene Elphinstone (contralto)—"Thou'll Be a Blossom" (Liszt), "Sleep Song" (Buckley). 9.40: Alf Featherstone and his Orchestra—Old-time Waltz—"Merry Widow." 9.50: Phyllis Verner (soprano)—"To the Angels" (Zardal). 10.0: News weather. 10.15: Alf Featherstone and his Orchestra—Three-quarters of an hour's dance music. 11.0: Close down.

5CL

MIDDAY SESSION.

12.0 to 1.0: See Friday.

AFTERNOON SESSION.

1.15: From Mount Gambler racecourse: Riders and positions for Novice Race, about six furlongs. 1.20: Mollie Warden, soprano. 1.27: Arthur Douglas. 1.30: From Mount Gambler racecourse, description of Novice Race by Arnold Treloar. 1.50: Epsom Race result: Trial Plate. 1.55: From Mount Gambler racecourse: Riders and positions for Yahi Trial Hurdle Race. 2.0: Chimes. 2.1: Resume of previous race results. 2.10: From Mount Gambler racecourse: Description of Yahi Trial Hurdle Race, by Mr. Arnold Treloar. 2.20: Epsom race result: Brush Steeplechase. 2.35: From Mount Gambler racecourse: Riders and positions for Blue Lake Handicap, one mile and a quarter. 2.49: Epsom race result: Trial Purse. 2.50: From Mount Gambler racecourse: Running description of Blue Lake Handicap, by Mr. Arnold Treloar. 3.0: Chimes. 3.1: Resume of previous race results. 3.15: From Mount Gambler racecourse: Riders and positions for South-eastern Steeplechase, about three miles. 3.20: Epsom race result: Jufe Handicap. 3.30: From Mount Gambler racecourse: Description of South Eastern Steeplechase, by Mr. Arnold Treloar. 3.50: Epsom race result: Open Handicap. 3.55: From Mount Gambler racecourse: Riders and positions for Moorak Hurdle Race, about two miles and eight chains. 4.1: Resume of previous race results. 4.10: From Mount Gambler racecourse: Running description of Volcano Handicap, about six furlongs. 4.20: Epsom race result: Jumpers' Flat Race. 4.35: From Mount Gambler racecourse: Riders and positions for Volcano Handicap, about six furlongs. 4.50: From Mount Gambler racecourse: Running description of Volcano Handicap, about six furlongs. 4.55: Stock Exchange information; resume of Mount Gambler and Epsom race results with dividends on Volcano Handicap. 5.0: Close down.

EVENING SESSION

6.0: Chimes. 6.1: Birthday greetings, correspondence, songs and stories by "Miss Wireless." 6.30: An Interlude of Dinner Music (Brunswick recordings). 6.45: Sporting service, including Mount Gambler and Epsom race results and selections for to-morrow's races at Mount Gambler. 7.1: Senior Birthday League greetings. 7.2: Stock Exchange information. 7.6: General market reports. 7.10: Priscilla Kirk, B.A., will speak on "The Monstrous Regiment of Women." 7.25: An address to Boy Scouts. 7.40: 5CL Bluebird Girls' Club: An entertainment by "The Bird Lady."

NIGHT SESSION

8.0: Chimes. 8.1: Introduction by the president, Mr. P. E. O'Leary, and hon. secretary, Mr. F. A. Greene. 8.3: Adelaide Irish Pipe Band: Overture, "The Weaving of the Green"; "The Dawning of the Day"; "Rakes of Malloy." 8.9: C. Duignan, tenor: "Believe me, if all those sneaking young charms." 8.12: B. Curtis, cornet solo: "Machusa." 8.15: M. M'Paul, soprano: "Beautiful Ireland." 8.18: F. Brown, elocutionist: "Cooch the Piper." 8.21: Frank M'Cube, baritone. "O'Donnell Assoc." 8.24: Frank Sibeerg, humorist: "Tipperary Christening." 8.27: W. O'Leary, soprano: "Danny Boy" (Weatherly). 8.30: J. Curtis, violinist: Selected solo. 8.33: W. Harman, tenor: "The Cruiskeen Lawn." 8.36: P. W. Doherty, dancer: Irish jig. 8.39: J. G. O'Leary, baritone: "The Donovan's." 8.42: F. E. O'Leary, pianist: Irish traditional dance music. 8.45: N. M'Cube, soprano: "The Harp that Once." 8.48: Adelaide Irish Pipe Band: National selections, "Boys of Wexford," "Kelly of Kilann"; "Nora Orlena." 8.51: C. Duignan, tenor: "Kathleen Mavourneen." 8.54: B. Curtis, cornet solo: "The Last Rose of Summer" (Moore). 8.57: M. M'Paul, soprano: "The Irish Immigrant." 9.0: G.P.O. chimes. 9.1: Meteorological information, including Semaphore tides. 9.2: Overseas grain report. 9.3: Frank M'Cube, baritone: "Oft in the Silly Night." 9.4: F. Brown, elocutionist: "Ballad of Father Gilligan." 9.9: Frank Sibeerg, humorist: "Conversayione." 9.12: Miss W. O'Leary, soprano: "The Kerry Dance."

9.15: J. Curtis, violin solo: Selected solo.
 9.18: W. Harman, tenor: "Maire my Girl."
 9.21: P. W. Doherty, Irish dance: "The Hornpipe."
 9.24: J. G. O'Leary, baritone: "The Wearing of the Green."
 9.27: F. E. O'Leary, pianist: Traditional Irish dance music.
 9.30: N. McCabe, soprano: "Come Eack to Erin."
 9.33: Adelaide Irish Pipe Band: National selection. "Wicklow Airs;" "All the way to Galway;" "Little House under the Hill."
 9.37: C. Duignan, tenor: "The Dear Little Sham-rock."
 9.40: B. Curtis, cornet solo: Selected.
 9.43: M. M'Faul, soprano: "Steer my barge."
 9.46: F. Brown, elocutionist: "Rory of the Hill."
 9.49: F. McCabe, baritone: "The West's Asleep."
 9.52: Frank Siebert, humorist: "Kitty O'Toole."
 9.55: W. O'Leary, soprano: Selected.
 9.58: J. Curtis, violin solo: Selected.
 10.1: W. Harman, tenor: "Erin my Home."
 10.4: N. McCabe, soprano: "Killarney."
 10.7: J. G. O'Leary, baritone, "Ireland, boys, Hurrah."
 10.10: The company, "God Save Ireland" (accompanists, Miss E. O'Leary. 10.15: General news service, British Official wireless news; meteorological information.
 10.20: Sporting service, including Mount Gambler and Epsom Race results, and selections for to-morrow's races at Mount Gambler.
 10.30: Modern Dance Music, Brunswick recordings
 11.0: Close down.

6WF

10.0: Tune in. Gramophone and phonograph records from the Studio. 11.0: Close down. 12.30: Tune in. 12.35: Markets, news, etc. 1.0: Time signal. 1.1: Weather bulletin supplied by the Meteorological Bureau of Western Australia. 1.3: Talk by Dr. Winifred Holloway, of London. 1.20: Music. 1.30: Close down.
 3.30: Tune in. 3.35: Musical programme from the Primrose Cafe De Luxe. Items by the Misses Marshall and Chapman. 4.30: Close down.
 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Perth Piano Trio. 7.30: Commercial and general information. 7.45: Talk on a popular science by Mr. Hal. M'Kail. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Fatter, instrumental and vocal items from the Studio by Ned Taylor's Entertainers. 8.50: Late news items by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements; ships within range announcement; late weather bulletin. 9.5: Programme continued from the Studio. 10.30: God Save the King.

104.5 METRE TRANSMISSION.

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 6.45 p.m.

7ZL

11.30 to 1.30: See Friday. 2.0: Close down. 2.45: Description of Steeplechase, 2 miles 15 chains, run at Epsom Racecourse, Epsom, Melbourne. 2.50: Close down.

AFTERNOON SESSION.

Races: Announcer, Jack Broadbent. 3.0: G.P.O. clock chimes the hour. 3.1: Selections by the Melody Masters. 3.4: Weather information. 3.5: Selections by the Melody Masters. 3.15: Running description of Trial Purse, 6 furlongs, run at Epsom Racecourse, Epsom, Melbourne, Victoria. 3.45: Description of Trial Purse, 6 furlongs, Epsom, Melbourne. 4.15: Description of Open Handicap, 6 furlongs, Epsom, Melbourne. 4.45: Description of Jumpers' Flat, 1 1/2 miles, Epsom, Melbourne. 4.50: Close down.

EARLY EVENING SESSION.

6.15: Selections. 6.30: Bertha Southey Brammall. 6.45: Selections. 7.0: Answers to letters and birthday greetings, by Bertha Southey Brammall. 7.15: News session.

EVENING SESSION.

7.30: A. Butler will speak on, "Some Familiar Birds." 7.45: Alderman H. H. Bray will give a talk on "Kennerly Boys' Home and its Workings." 8.0: "Fifty years ago to-day;" 8.3: Best of instrumental and vocal items by leading international artists, specially arranged by Paton's Music Warehouse. 8.45: News session. 10.0: Chimes. 10.1: Close down.

Military Band Contest

THE winner of the Third Military Band Contest, held on May 25 at the Melbourne Cricket Ground—the 32nd Battalion Band—will be presented with the SLO Trophy Shield at the studio on June 18. The band, under the direction of Sergeant Skane, 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. F. C. Johnston.

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Local Programmes, Thursday, June 20

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. 7.15: Studio music. 7.25: Investment markets; mining sharemarkets; metal quotations; wool sales; breadstuffs markets; inter-State markets; produce markets. 7.40: Studio music. 8.0 "Big Ben." Close down.

MORNING SESSION.

Announcer A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: Last minute sporting information by the 2FC Racing Commissioner. 10.40: Studio music. 11.0: "Big Ben." A.P.A. and Reuter's Cable services. 11.5: Close down.

MIDDAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.2: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Summary of news, "Sydney Morning Herald." 12.10: Rugby Wireless news. 12.13: A Dickens Reading by A. S. Cochrane. 12.30: Studio music. 1.0: "Big Ben." Weather intelligence. 1.3: "Evening News" midday news service. Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Popular music. 1.50: Last minute sporting information by the 2FC Racing Commissioner. 2.0: "Big Ben." Close.

AFTERNOON SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: The Book Lover's Corner. 3.0: "Big Ben." Popular music. 3.30: Avic Garth, mezzo—(a) "Lullaby" (Brahms). (b) "The Wind" (Spross). 3.37: Studio items. 3.45: A reading. 4.10: Avic Garth, mezzo—(a) "Serenata" (Toselli). (b) "The Fairy in the Chimney" (Elliot). 4.17: Studio music. 4.30: Vera Keogh—"A Tale of Two Cities." 4.45: Stock Exchange, third call. 4.47: Studio items. 5.0: "Big Ben." Close.

EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The Children's Session, conducted by the "Hello Man," assisted by Uncle Ted and Sandy. Letters and stories. Music and entertainment. 6.30: Dalkety's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Rugby Wireless news. 6.55: Late sporting news. 7.0: "Big Ben." Late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Syncoption" (Kreisler). (b) "On the Way to Kew" (Clarke). (c) "Selection of Songs" (Del Riozo). (d) "To the Spring" (Greig). (e) "Gondolier's Song" (Saner).

EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Popular music.
7.45: Programme announcements.
7.48: A Record Recital.
8.0: "Big Ben." From the State Theatre: The State Theatre Orchestra, conducted by Will Prior.
Price Dunsly at the State Theatre Organ.
8.20: From the Studio—Eileen Boyd, contralto.
8.27: Tom Williams, violinist—(a) "Romance" (Wienlawski). (b) "Gavotte" (Gossec).
8.34: Eleanor Ross will render—"The Princess and the Nightingale" (Somerset Maugham).
8.56: Weather report.
8.57: Alexander Sverjensky, pianist.
9.12: Eileen Boyd, contralto.
9.19: Tom Williams, violinist—

(a) "Canzonetta" (D'Ambrosio).
(b) "Leibesleid" (Kreisler).
9.26: C. M. Baeyertz will speak on Stephen Leacock.
9.41: Alexander Sverjensky, pianist.
9.51: Eleanor Ross—
(a) "Old Mrs. Willow" (John Drinkwater).
(b) "The Listeners" (Walter de la Mare).
9.58: From the State Theatre—The State Theatre Orchestra, conducted by Will Prior.
Price Dunsly at the State Theatre Organ.
10.28: From the Studio: Late weather report.
10.30: From the Hotel Australia: Cec. Morrison's Dance Band.
10.57: From the Studio—To-morrow's programme.
10.59: From the Hotel Australia: Cec. Morrison's Dance Band.
11.30: National Anthem. Close.

2BL

MORNING SESSION.

Announcer: A. C. C. Stevens.

8 a.m.: G.P.O. chimes; weather report, State and metropolitan. 8.3: 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 Silent Friends. 10.0: G.P.O. chimes; close down.

MIDDAY SESSION.

Announcer: A. C. C. Stevens.

11.0: G.P.O. chimes; 2BL Women's Sports Association session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield. 12.0: G.P.O. chimes; special ocean forecast and weather report. 12.3: Pianoforte reproduction. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "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.

Announcer: A. C. C. Stevens.

Accompanist: Kathleen Roe.

3.45: G.P.O. chimes; popular music. 3.50: Millie Hansen, soprano—(a) "The Pipes of Pan" (from "Arcadians"). (b) "His Father Keeps a Brewery" (sung by Maggie Moore in "Struck Oil"). 4.2: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.15: From the Studio—Stewart Garbo, elocutionist. (a) "A Fallen Star" (West). (b) "Two Sinners" (Wilcox). 4.22: A musical item. 4.25: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.35: From the Studio, Millie Hansen, soprano—(a) "In the Garden of my Heart" (Moto). (b) "The Carnival" (Molloy). 4.42: Stewart Jarbo, elocutionist—(a) "An Old Bachelor" (West). (b) "Earthenware" (Anon). 4.49: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 5.0: G.P.O. chimes; pianoforte reproduction. 5.15: "Sun" news service. 5.20: Popular music. 5.37: Features of the evening's programme.

EARLY EVENING SESSION.

Announcer: Basil Kirke.

5.40: Children's session, conducted by Uncle Bas; music and entertainment; letters and stories. 5.30: "Sun" news and late sporting. 6.40: 2BL Dinner Quartette—(a) "Tales from the Vienna Woods" (Strauss). (b) "The Rustle of Spring" (Sinding). (c) "Our Miss Gibbs" (Monckton). (d) "A Regret" (Anderson). (e) "Love's Wish" (Anderson). (f) "Serenade" (Widor). 7.7: Australian Mercantile, Land, and Finance Co.'s report; weather report and forecast by courtesy of Government Meteorologist; Producers' Distributing Society's fruit and vegetable market report; grain and fodder report ("Sun"); dairy pro-

duce report ("Sun"); weekly traffic bulletin. 7.25: Mr. Pim and Miss Pam in advertising talks, handy hints, and nonsense. 7.53: An Advt. Special. 7.55: Programme and other announcements.

EVENING SESSION.

Announcer: Basil Kirke.

Accompanist: G. Vern Barnett.

8 p.m.: G.P.O. chimes.
Concord Citizens' Band—
(a) March, "Entry of the Gladiators" (Fueck).
(b) Selection, "Zampa" (Harold).
8.20: David Craven, baritone.
8.27: Vincent Aspey, violinist—
(a) "Andantino" (Martini).
(b) "Perpetuum Mobile" (Ries).
8.34: Concord Citizens' Band—
(a) Overture, "Martha" (Flotow).
(b) Selection, "A Souvenir of the Opera" (Rimmer).
8.54: Weather report.
8.55: 2BL interviews to-night's personality.
9.5: Concord Citizens' Band—
(a) Fox Trot, "Hallelujah" from "Hit the Deck" (Youmans).
(b) March, "Knight of the Road" (Greenwood).
9.15: Frank Ryan, entertainer—
"The Plumber" (Reynolds).
9.22: David Craven, baritone.
9.29: Vincent Aspey, violinist—
(a) "Yankee Doodle" (Vieuxtemps).
(b) "Serenade" (Chaminade).
9.36: Concord Citizens' Band—
(a) Cornet duet, "Ida and Dot" (Losey).
(b) Fantasia, "The Spirit of Youth" (Greenwood).
(c) Waltz, "Enchantment" (Greenwood).
9.56: Frank Ryan, entertainer—
(a) Some Tales.
(b) "Wonder if my Mother Ever Knew" (Sidney).
10.6: Concord Citizens' Band—
Valse de Concert.
"Birds of Paradise" (Rimmer).
10.14: Late "Sun" news service.
10.26: Late weather report.
10.28: To-morrow's programme.
10.30: National Anthem; close down.

2GB

10.0: Music. 10.10: Happiness talk by A. E. Bennett. 10.20: Music. 10.30: Women's session, by Miss Helen J. Beegling. 11.45: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.50: Music. 3.30: Close down. 5.30: Children's session, by Uncle George. 7.0: Music. 7.45: Feature story. 8.0: Mr. William Green, tenor. 8.7: Symphony Orchestra. 8.15: Miss Gladys Verona, soprano. 8.22: Mr. Heath Burdock, Shakespearean recital. 8.32: Instrumental Trio. 8.42: Mr. Clifford Lathlean, baritone. 9.0: Weather report. 9.3: Address. 9.15: Mr. William Green, tenor. 9.25: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.30: Symphony Orchestra. 9.35: Madame Betts-Vincent in an illustrated talk on the making of music. 9.50: Miss Gladys Verona, soprano. 10.0: Instrumental music. 10.30: Close down.

2UW

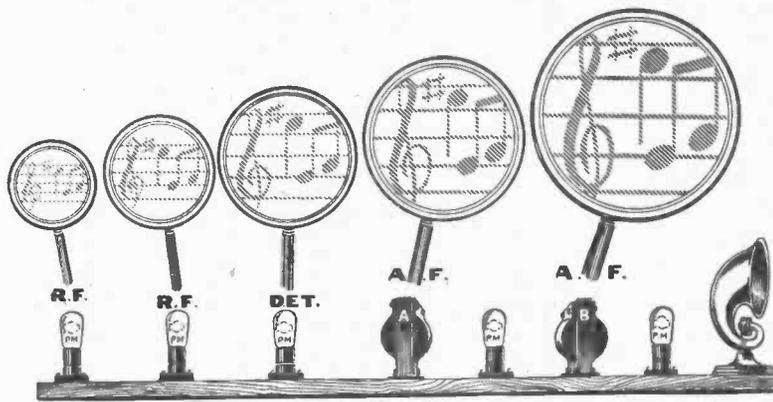
MIDDAY SESSION

12.30: Request numbers. 1.0: G.P.O. clock and chimes; music. 1.15: Talk on Homecraft by Pandora. 1.40: Music and request numbers. 2.30: Close down. 4.30: Musical programme.

EVENING SESSION

5.30: Children's hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes; request numbers. 8.0: Music. 8.15: Garden talk by Mr. S. Hunt. 8.30: Request items. 9.0: G.P.O. clock and chimes; comments on Foreign Affairs by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

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A-29

Interstate Programmes, Thursday, June 20

3LO

EARLY MORNING SESSION.

7.15 to 8.15: See Friday.

MORNING SESSION.

11.0: 3LO's Culinary Counsels for the Connoisseur.
11.5: Captain Donald MacLean will continue his series: "Famous Women of History." 11.20: Musical Interlude. 11.40: Musical interlude. 11.45: Talk on "Mothercraft."

MIDDAY SESSION.

12.0: Melbourne Observatory time signal; express train information. 12.1: British official wireless news from Rugby; Reuters and the Australian Press Association cables. 12.15: Newmarket stock sales; cattle sales report, bullocks and calves, by the Associated Stock and Station Agents, Bourke Street, Melbourne. 12.20: Community singing. 12.40: Stock Exchange information; prices received from the London Stock Exchange this day by the Australian Mines and Metals Association. 12.43: Community singing resumed. 1.45: Meteorological information. 1.55: Close down.

AFTERNOON SESSION.

2.15: The Station Orchestra: "In Magic Wood" (Weber). 2.27: Dr. Loftus Hills: "Topics of the Week." 2.42: Fritz Hart will speak to Students of Music. 3.15: Rev. William Bottomley will continue his series of talks on William Morris's epic in verse, "Sigurd the Volsung." 3.12: Mozart Trio (Professor Rachmanoff, piano; David Zisserman cello, and Peter Bornstein violin). Soloists of the Anna Pavlova Company, in Momentous Melodies. Interim: Madoline Knight, contralto, in Old-time Ballads. 3.37: The Station Orchestra: Overture, "Pierabras" (Schubert). 4.4: Madoline Knight, contralto: "Old-time Ballads." 4.11: The Station Orchestra: "Ballet Egyptian" (Luigini). 4.21: Wilfrid Thomas, bass: "Night" (Rachmaninoff). "Morning" (Rachmaninoff). 4.28: The Station Orchestra: "Melody in G Flat" (Cadmam). 4.31: Madoline Knight, contralto: "Old-time Ballads." 4.38: The Station Orchestra: "Adante Cantabile" (Tschalkowsky). 4.43: News service. 4.45: Evensong, transmitted from St. Paul's Cathedral, Melbourne. 5.30: From the Studio: Acceptances and barrier positions for the V.A.T.O. races, to be held at Caulfield on Saturday. 22nd Instant. 5.35: Close down.

EARLY EVENING SESSION.

CHILDREN'S HOUR.

5.45: Birthday greetings and answers to letters by "Bobby Bluegum." 6.30: Captain Donald MacLean: Some more adventure stories. 6.45: "Bobby Bluegum"—And "Ector and Orace."

EVENING SESSION.

7.5: Stock Exchange information. 7.15: Market reports. 7.30: News session. 7.43: Birthday greetings. 7.45: Out of the Past. 7.46: A dressing-room talk. 8.0: A Maker of History.

NIGHT SESSION.

8.0: Programme announcements.
8.1: Rod McPeak will speak on "Pootball."
8.15: Ern Hall's Radio Revelers, with Hugh Huxham.
"It All Comes Out in the Wash" (Trent).
"Rio Rita" (Ester).
"The Kink-a-Jou" (Tierney).
8.24: Skipper Francis, baritone—
"Ten Little Baby Fingers" (Francis).
8.27: The Radio Revelers—
"My Mother's Eyes" (Baer).
"Next to Me I Like Me Next to You" (Bit).
"Anywhere is Heaven" (Brady).
8.35: Madoline Knight, contralto—
Old-time Ballads.
8.38: The Radio Revelers—
"Down Where the Sun Goes Down" (Jones).
"Can You Blame Me" (Goodwin).
"I Want to be Alone With Mary Brown" (Leslie).
8.48: Bert Ray, comedian—
"Merry Moments."
8.51: The Radio Revelers—
"A Comin' 'Round to Night, Hub" (Lewis).
"Forty-seven Ginger-headed Sailors" (Sarony).
"High Tension" (Bee).
9.0: Skipper Francis, baritone—
"Cheery Good-byes" (Baird).
9.3: The Radio Revelers—
"A Bungalow, a Radio, and You" (Dempey).
"My Heart's Not Still" (Rodgers).
"Give Your Love a Home" (Burke).
9.12: Madoline Knight, contralto—
Old-time Ballads.
9.15: The Radio Revelers—
"When You Know Me" (Baden).
"I'm Thirsty for Kisses" (Davis).
"I'm Sorry, Sally" (Kahn).
9.24: Bert Ray, comedian—
"My Troubles."
9.27: The Radio Revelers—
"My Blackbirds Are Bluebirds Now" (Friend).
"Cassablanca" (Evans).
"Cradle of Love" (Wayne).
9.35: Skipper Francis, baritone—
"On the Banks of Allan Water" (Lewis).
9.39: The Radio Revelers—
"Oh, Isabella" (Schuster).
"Sweet Forget-me-nots" (Lorenzo).
"Pansies" (Nichols).
9.48: Madoline Knight, contralto—
Old-time Ballads.
9.51: The Radio Revelers—
"You Ought to Hear Olaf Laff" (Baer).
"Mexican Serenade" (Terese).
"Down by the Old Front Gate" (Kassal).
10.0: News and market reports; meteorological information; British official wireless news from Rugby; announcements.
10.15: The Radio Revelers—

"I Don't Know Why I Do It" (Val).
"Hum and Strum" (Meyers).
"Maybe I'm Wrong" (Harris).
10.24: Bert Ray, comedian—
"Have You Heard This One?"
10.27: The Radio Revelers—
"Constantinople" (Carlton).
"My Angelina" (Wayne).
"There's a Rainbow Round My Shoulder" (Johnson).
10.35: Skipper Francis, baritone—
"Sally in Our Alley" (Carey).
10.39: The Radio Revelers—
"Dada, Dada" (Dore).
"Oh, is She Mad at Me?" (Friend).
"High Upon a Hilltop" (Baer).
10.48: Bert Ray, comedian—
"My Neighbors."
10.51: The Radio Revelers—
"When Love Comes Stealing" (Rapee).
"Roll Up the Carpets" (Nixon).
"To-day, To-morrow, Forever" (Nichols).
11.1: The Radio Revelers—
"Shinanki Da" (Carlton).
"Who Knows" (Dixon).
"Lady of the Morning" (Burton).
"I'm Crazy Over You" (Lewis).
"Old Man Sunshine" (Dixon).
"Wipac" (Baker).
"Guess Who's in Town" (Razaf).
"That Stolen Melody" (Flaher).
"Lenora" (Gilbert).
"Japanese Mamma" (Donaldson).
11.30: God Save the King.

3AR

MORNING NEWS SESSION.

10.0 to 10.59: See Friday.

MORNING MUSICAL SESSION.

11.0: Ballads. 11.30: The Jedal Trio (Alva Hattenbach, violin; Edna Hattenbach, cello; and John Simons, piano). Trio. "Larghetto" (Mozart). "Spanish Dance" (Mozzkowski). Violin. "Menuets" (Mozart). Trio. "La Serenata" (Braga). "Prelude" (Fochulski). "Mazurka Russe" (Glinka). 12.0: News session. 12.30: British official wireless news. Announcements. 12.30: Close down.

AFTERNOON SESSION.

3.0: Orchestrations. 4.30: Close down.

EVENING SESSION.

8.0: Ballads. 7.10: News service. Announcements. Acceptances and barrier positions for the V.A.T.O. Races at Caulfield, to be held on Saturday, 22nd instant. 7.25: Ballads.

NIGHT SESSION.

8.0: Dr. Loftus Hills, "Life's Facts and Fancies."
8.30: The Station Orchestra—
"Symphony No. 2 in A Minor" (Saint-Saens).
8.40: Wilfrid Thomas (basso)—
"Far and High" (Korbay).
"Shepherd, See Thy Horses' Foaming Mane" (Korbay).
"Long Ago, When I Was Still Free" (Korbay).
8.50: The Station Orchestra—
Fantasia, "In the Magic Wood" (Weber).
9.0: "Romeo and Juliet," transmission from the Auburn Church, "The Mestersingers," under the direction of J. Sutton Crow. Part III.
Romeo John Sullivan
Juliet Madame Elsie Davies
Stephano Stella Dredge
Capulet Charles Evans
Mercutio Charles Evans
Friar Lawrence Alan Eddy
Paris Alan Eddy
Gardino Sybil Shaw
Tybalt R. Grimshaw
10.0: The Station Orchestra—
"Selection of Offenbach's Operas" (arranged by Ansell).
10.15: The James Girls in Something Operatic.
10.25: News service. Announcements.
10.30: God Save the King.

4QG

EARLY MORNING SESSION

7.43 to 8.30: See Friday.

MORNING SESSION

11.0 to 12.0: See Friday.

MIDDAY SESSION

1.0 to 2.0: See Friday.

AFTERNOON SESSION

3.0 to 4.30: See Friday.

EARLY EVENING SESSION

6.0 to 7.45: Lecture-talk on "Poultry," by Mr. P. Rumball, poultry instructor.

NIGHT SESSION

GROUP I.—GRAND OPERA.

Instrumental quartette.
"Morrice Dance" ("Henry VIII," Ed. German).
W. W. Crisp (tenor).
"Flower Song" (from "Carmen," Bizet).
Male chorus.
"Old Men's Chorus" (from "Faust," Gounod).
Stanley Tamblin (bass).
"Prologue" (from "Il Pagliacci," Leoncavallo).
Instrumental quartette.
"Entr'acte No. 1" (from "Rosamunde," Schubert).

GROUP II.—SEA SONGS.

Male chorus.
"The Skipper of Saint Ives" (arr. by Erich John).
S. Fraser (baritone).
"Reuben Banzo" (Coates).
Vocal trio.
"Sea Dogs" (Gray).
Male chorus.
Shanty, "Hanging Johnny."
Instrumental trio.
"Hornpipes" (arr. by Erich John).

GROUP III.—SACRED.

L. Sheridan (baritone).
"The King of Love My Shepherd Is" (Gounod).
Male chorus.
"Come, Follow Me" (Erich John).
W. W. Crisp (tenor).
"Ave Maria" (Raft).
Instrumental Quartette.
"Eventide" (Myddleton).
9.0: Metropolitan weather forecast.

GROUP IV.—CLASSICAL.

W. W. Crisp (tenor) and Stanley Tamblin (bass).
Vocal duet. "Welcome, Heroes of Renown" (Mendelssohn).
Arthur Smith (tenor).
"On Wings of Song" (Mendelssohn).
Male chorus.
"The Hours are Fleeting" (Schubert).
Instrumental quartette.
"March Militaire No. 2" (Schubert).

GROUP V.—MISCELLANEOUS.

S. Fraser (baritone) and male chorus.
"Widdicombe Fair" (old Devonshire song).
Jack Lord (bass).
"Corn Ricks" (Scotch).
Arthur Smith (tenor) and L. Sheridan (baritone).
Vocal duet. "It's Gone" (plantation song).
Stanley Tamblin (bass).
"Arkeology" (Goodhart).
Male chorus.
Student song, "The Good Little Boy."
Instrumental quartette.
"Serenata" (Moszkowski).

GROUP VI.—LIGHT OPERA.

Arthur Smith (tenor).
"Prayer in the Desert" (from "Chu Chin Chow," Noyton).
W. W. Crisp (tenor) and Stanley Tamblin (bass).
Duet. "Here's to You" (from "Who's Whooper?" Novello).
Male chorus.
"I'll Sing and Dance" (from "Chu Chin Chow," Noyton).
Instrumental quartette.
"Ciaccona" (Durand).
10.0: News. Weather information.
10.15: Close down.

5CL

MIDDAY SESSION

12.0 to 1.0: See Friday.
12.52: Railway information; Stock Exchange information. 1.00: Close down.

AFTERNOON SESSION

1.15: From Mount Gambler racecourse: Riders and positions for Handicap Trial Stakes, about one mile and twelve chains. 1.30: From Mount Gambler racecourse: Description of Handicap Trial Stakes, by Mr. Arnold Treloar. 1.55: From Mount Gambler racecourse: Riders and positions for Glenburris Hurdle Race, about two miles and 44 yards. 2.1: Resume of previous race results. 2.10: From Mount Gambler racecourse: Description of Glenburris Hurdle Race, by Mr. Arnold Treloar. 2.35: From Mount Gambler racecourse: Riders and positions for Mount Gambler Cup, about one and a half miles. 2.50: From Mount Gambler racecourse: Description of Mount Gambler Cup, by Mr. Arnold Treloar. 3.1: Resume of previous race results. 3.15: From Mount Gambler racecourse: Riders and positions for Adam Lindsay Gordon Steeplechase, about two miles and one furlong. 3.30: From Mount Gambler racecourse: Running description of Adam Lindsay Gordon Steeplechase, by Mr. Arnold Treloar. 3.55: From Mount Gambler racecourse: Riders and positions for Flying Handicap, about six furlongs. 4.1: Resume of previous race results. 4.10: From Mount Gambler racecourse: Running description of Flying Handicap, by Mr. Arnold Treloar. 4.35: From Mount Gambler racecourse: Riders and positions for Murrawa Welter, about one mile. 4.50: From Mount Gambler racecourse: Running description of Murrawa Welter, by Mr. Arnold Treloar. 4.55: Resume of Mount Gambler race results, including dividends on Murrawa Welter. 5.0: Close down.

EVENING SESSION

6.0: Chimes. 6.1: Birthday greetings, correspondence, songs and stories by "The Wattle Lady." 6.40: Miss Beattie Francis. 6.45: Sporting service, including Mount Gambler race results. 7.1: Senior Birthday League greetings. 7.2: Stock Exchange information. 7.6: General market reports. 7.10: Dr. C. H. Wright, M.A., will continue his series of talks. 7.25: Mr. Jack Bruce will speak on "Some Aspects of Overseas Trade." 7.40: Mr. A. M. Whittenbury: Hints to Poultry Keepers.

NIGHT SESSION

8.0: Chimes.
8.1: Station Orchestra, conducted by Lizette Foglia-Overture, (Auber).
8.7: Ellen Eiford, contralto: "Fushben" (Needham), "Nightfall at Sea" (Phillips).
8.14: Marcus Tozer and Dondi Randalk Hawaiian Duo, will entertain you with Hawaiian music.
8.20: Lewis Dale, tenor: "Love wandering through

the golden maize" (Arthur Williamson); "Glorious Devon" (Sanderson).
 8.27: Station Orchestra: "At the Summit of St. Bernard" (Bolter); "Nut Cracker Suite, Part 1." (Tschalkowsky).
 8.38: Mollie Warden, soprano: "The Elf Man" (John B. Wells); "Little Rose of Love" (Dorothy Foster).
 8.45: Arthur Douglas.
 8.51: Station Orchestra: "Spanish Valse" (Victor Herbert), "From a Russian Village" (Marsden).
 9.1: Meteorological information, including Sema-phore tides.
 9.2: Overseas grain report.
 9.3: A Pianoforte Recital by Paul Howard.
 9.20: Ellen Elford, contralto: "Since we Parted" (Allitsen), "Over the Mountains" (Quilter).
 9.27: Marcus Tozer and Dondi Randall, Hawaiian duo. More fascinating Hawaiian music.
 9.33: Lewis Dawe, tenor: "Now sleeps the Crimson Petal" (Roger Quilter); "The Last Hour" (Kraener).
 9.40: Station Orchestra: "Oriental Fantasy" (Sol-ter).
 9.45: Arthur Douglas.
 9.52: Mollie Warden soprano: "Tiptoe" (Molly Carew), "The Lass with the Delicate Air" (Arne).
 9.59: "Atmos" will talk on you about "Radio Problems."
 10.9: Station Orchestra: Selection, "Dorothy" (Col-lier).
 10.15: General news service; British Official wire- less news; meteorological information.
 10.20: Sporting service, including Mount Gambier race results.
 10.30 to 11.0: Dance music.

6WF

10.0: Tune in. Gramophone and phonograph re- cords from the Studio. 11.0: Close down. 12.30: Tune in. 12.35: Markets, news, and race accept- ances. 1.0: Time signal. 1.1: Weather bulletin, supplied by the Meteorological Bureau of Western Australia. 1.3: Panatrophe Hour relayed from Messrs. Musgrove's, Ltd., Lyric House. 2.0: Close down. 3.30: Tune in. 3.35: Musical programme from the Carlton Cafe; vocal items from the Studio. 4.30: Close down.
 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Perth Piano Trio. 7.30: Commercial and general information. 7.45: Talk by Mr. A. T. Bowden, B.Sc. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Concert by the Perth City Band, conducted by Mr. Les. Price. 8.50: Late news items by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements, ships within range announcement; late weather bulletin. 9.5: Programme continued from the Studio. 9.45: "Health" talk by Mr. H. Hatton. 10.30: God Save the King.

104.5 METRE TRANSMISSION
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7ZL

MIDDAY SESSION

11.30 to 1.30: See Friday.

AFTERNOON SESSION

3.0: Chimes. 3.4: Weather information. 4.15: Child welfare. 4.30: Close down.

EARLY EVENING SESSION

6.15: Selections. 6.30: The Story Lady. 7.0: An- swers to letters and birthday greetings by Uncle David and The Story Lady. 7.15: News session.

EVENING SESSION

7.30: Under the auspices of the "Come to Tasmania" Organisation, L. Norman will speak on "How to spend a holiday in Tasmania." 7.45: W. H. Cumline, will speak on "Soccer." 8.0: Chimes. 8.15: Studio concert by 7ZL Artists and Mlle. Columbia. 8.15: Doris Mannering, soprano—"A Rainbow Dream" (Raymond). "Somebody Knows" (Raymond). 8.22: Cherniavsky Trio—"At the Brook." 8.25: Val Ul- brick, songs at the piano—"Felix the Cat" (Wender- lings). "Waiting for the Moon." 8.32: Donald Lind- ley, trumpet solo—"Slidin' Around" (Lindley). 8.35: Harry Guy, baritone—"When you Played the Organ," "A Lane in Spain." 8.42: Toscha Seidel, violin solo. "Humoresque" (Dvorak). 8.45: Jean Allen, contralto -selected. 8.52: Reginald Fort, organ solo—"The Swan." 8.55: Dorie Mannering soprano—"If Thou Wilt be the Falling Dew" (Lehmann). "Soul's Blossom" (Lehmann). 9.2: Philadelphia Symphony Orchestra—"Blue Danube Waltz" (Strauss). 9.5: Val Ulbrick, songs at the piano—"The Egg" (Charles). "Sunshine" (Berlin). 9.12: Jeanette Gerrard, piano solo—"I Love a Little Cottage." 9.15: Harry Guy, baritone—"If Winter Comes" (Tennent). "If I Might Come to You." 9.23: Philadelphia Orchestra—"Invi- tation to the Waltz." 9.26: Jean Allen, contralto-Selected. 9.30: News session. 9.45: Jean Allen, con- tralto—selected. 9.48: Columbia Light Opera Co. "Oh, Kay!" "The Desert Song" 9.52: John Brownlee, baritone—"I'll Not Complain" (sung in German). "Elegie" (Massenet). 10.0: Chimes. 10.1: Close down.

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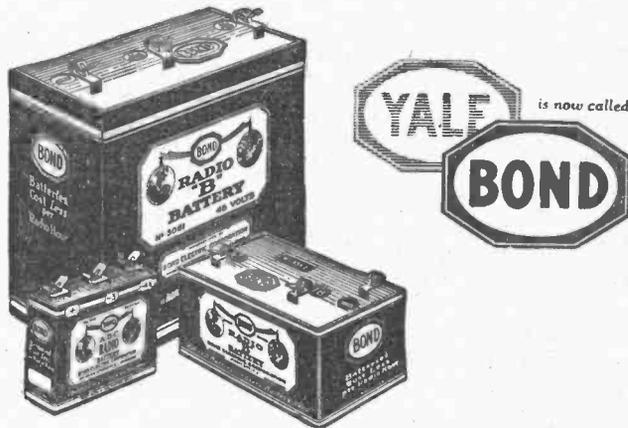
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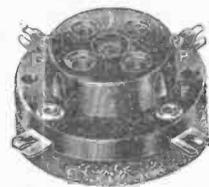
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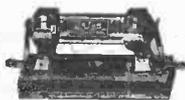
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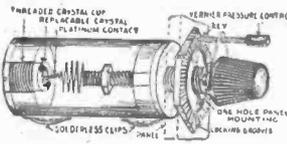
Morris Garth Clamp, just landed. 1/.



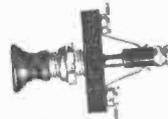
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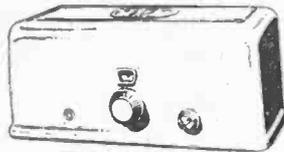
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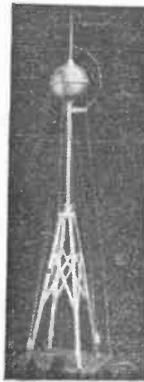
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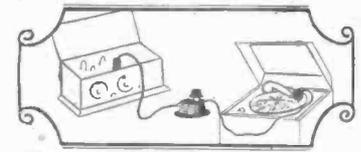
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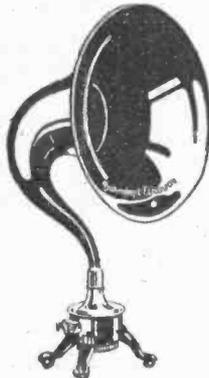
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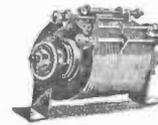
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 (Opp. Palace Theatre)
 Branch: 86a Pitt St., near Martin Place

The WIRELESS WEEKLY RADIO INFORMATION

Service

GENERAL—Mr. E. C. Davidson writes: "From time to time the question is asked re. the correct method of connecting the speaker cord to the plug. Here is a simple method that I have used frequently. While listening-in adjust the diaphragm of the speaker until it just touches the magnets, or, in other words, just beyond that point where maximum volume is obtained, then reverse the leads to the plug, and if the diaphragm appears to 'blow off' the magnets, the connections are wrong. Reverse the leads, and the diaphragm sticks to the magnets, the reason, of course, being that for one direction the magnets are weakened, and the other, or correct direction, strengthens the electromagnets and pulls the diaphragm towards it." Many thanks, Mr Davidson.

J.C.H.N. (Papua)—WIRELESS WEEKLY published a receiver of this type called "The Hincoclar Coil Three."

W.A.G. (Qld)—Use a Power Pack. "TANGALUMA" (no address)—Screen-grid Mid-get, Air King, All Empire, Go-getter, Air King will require wet "A" and "B" batteries, heavy on current. It is made specially for use of the broadcast listener who is interested in short waves. Difference between All Empire and Go-getter is that the former has an R.F. stage of S.G. Air King consumes more battery power. Go-getter excellent.

W.E.W. (Peakhurst)—Depends on the circuit which you did not submit. It is unusual, however, in any case, the consumption is greater than the input.

No Name (Lithgow)—Glad you like "P.R." Colls.—primary 30 turns, R.F. secondary 75 turns. Detector primary, 30 turns, secondary 75 turns, reaction 45 turns S.G. circuit soon. Have just published Marco Four circuits to two adaptations. The other must wait a little while.

R.L.J. (Lower Mitcham)—A complete list of radio books appeared in these columns a week or so ago. The A.R.E.L. Handbook is useful.

C.F.S. (Maryborough)—Re valves, yes. Increase in volume only. Meter should be placed in series with plate lead to show emission. Compare reading with characteristics given on sheet accompanying valve.

L.S.E. (Middle Park)—Shorter letters please. (1) Valves O.K. (2) Colls satisfactory. (3) Audio stages quite in order. (4) No. (5) Yes. (6) Yes. (7) For this receiver, yes. (8) Quite. (9) O.K. Thanks for kind remarks. We do not reply by post.

W.F. (Brisbane)—Check over wiring. Hard to say where fault may lie, as details given are meagre. Take out first valve, and see if you can still receive the local station. If not, R.F. stage is at fault. Signal should be stepped up slightly with R.F. stage plugged in when set is turned down.

A.C.A. (Drumoyne)—Quite O.K.

G.H.H. (Kelso)—Present set O.K. Re relay stations, not announced yet. Marco Four.

L.B.Y. (Yenda)—Depends on whether you are using a "B" eliminator or dry batteries. If you are using an eliminator, one plug supplies power to eliminator and trickle charger. When knob is turned one way, the trickle charger is turned off and power passes on to "B" eliminator. If you are using dry batteries, turn trickle charger off before using set. The charger is so made that the valves will not light whilst accumulator is charging.

A.F.S. (Thornleigh)—No wonder set is insensitive. Primary is too large. Use primary of 20 turns. 0005 condenser should be across secondary.

R.P.S. (Lithgow)—Burnt out transformer.

A.S. (Glennie's Creek)—Valve or valves lost emission.

GENERAL—Mr. E. Thomson, Cattal Road, Glenorie, writes: "I have the back numbers of WIRELESS WEEKLY since January 1, 1929, and I note many readers have been inquiring for same. I can supply by return post if price and postage are paid."

J.B. (Edendale)—No. Browning-Drake with Reinartz reaction. L1 30 turns, L2 75 turns, L3 30 turns. L4 75 turns, L5 15 turns, L3 is placed at grid end of L4, but should be wound on a separate former so that it can be made variable with respect to L4. No, cannot be wound on same coil. 00025 reaction condenser. Potentiometer permits adjustment of grid bias.

J.W.A. (Drumoyne)—See list published frequently in recent issues of WIRELESS WEEKLY. No room here for complete list.

C.C.C. (Northcote)—B.D. Reinartz idea O.K. R.F. stage for Reinartz is Marco Four.

C.T.G. (Port Kembla)—Coil data given in Go-getter article. It will be necessary to change your condensers.

J.G. (Blakehurst)—Pleased to hear you like "P.R." Mount the smaller coil inside the larger by means of two metal thread screws and nuts, so that it can be reversed inside the large former.

C.S. (Ashfield)—Back of panel wiring diagram of a one-valve short-wave receiver was published in queries several weeks ago.

I.H.W. (Wattamondara)—R.F. nut neutralised.

G.E.T. (Stockton)—Good reception, indeed. Would like to see your circuit. No. 6 speaker.

M.S. (Sydney)—You will find an offer of 'back numbers' containing "Proving Radio" above. Mr. Thomson has these numbers. Glad remarks proved helpful. See also below.

GENERAL—Mr. A. Nicholson, Mount Street, Hunter's Hill, Sydney, asks if any reader can supply him with issues of WIRELESS WEEKLY containing "Proving Radio" Nos. from 1-19, except Nos. 2, 3, 4, 12, and 16.

A.R.C. (Farina)—Re Neutralising, yes. Depends what is wrong with it. If nothing is wrong, leave it. Use a D.C. voltmeter on the generator, as this will show you polarity. Needle will reverse its movements if polarity is reversed. Must be connected right way round set.

K.W. (Cooree)—Valves may have lost their emission, or batteries may be flat. Not much telephony on that band, though SSW come in well.

A.H. (Melbourne)—Sorry, no copies. Shall I insert a note in queries for you?

G.D. (Marrickville)—Cannot be used without rectification. See "Proving Radio" recent issues. You will get him if you use A.C. on all filaments. O.K. for last audio. Reason why volume diminished was because battery amperage was low, and extra load cut down current supply to valves.

V.S. O'G. (Tangle)—Write to Radio Inspector, c/o G.P.O. Sydney, who will send you sample examination papers.

"RETRAC" (Brisbane)—Try a circuit same as All-Empire, but with push-pull audio. Eliminator O.K. down to about 30 metres, after this you will probably experience hum. Ferranti Exponential horn for shield. Wind 40 turns on cage wire on a three-inch former. Connect aerial to first turn, and also to fixed plates of a .0005 variable condenser. Connect the other end of the coil to moving plates of the condenser, and also to the aerial terminal of the set.

J.J.C. (Marrickville)—The power valve in your Telefunken receiver should not glow. Quite in order. Yes, valves may be obtained in Sydney.

A.E. (Lewisham)—Glad you like "Proving Radio." Re Trickle Charger, the transformer-rectifier arrangement shown in "Proving Radio" will do the job.

H.H.M. (Melbourne)—Since your set is good, take heed to good advice, and don't alter it. Instead, you could modify it to a certain extent by making notes on alterations and principles as they appear in "Wireless Weekly." I would suggest that you use a good type S.L.F. condenser in place of those at present in use. Fully shield the set. When you can improve your receiver no more, make up a good aerial-earth system. After this, your next step to getting the radio bug will be to build a short-wave adaptor. Glad to have been of service.

W.W.B. (Coolumbandra)—Try a .002 fixed condenser across secondary of transformer, and see the plate and grid leads are well separated. If this does not stop the trouble, try changing valves over. The other stations you hear round 2BL and 3LO are the Japs.

T.M. (Enfield)—Place a 1 mfd. condenser, tested 500 volts in series with your earth lead, and also try reversing plug.

Y.W. (Queensland)—PI represents approximately three and one-seventh. Sometimes the symbol π is used. The circumference of a circle divided by three and one-seventh will give the diameter of the circle.

K.A.S. (Wollongong)—You will find Norfolk Island just below the Tropic of Capricorn. In a direct line with Brisbane, about 30 degrees long and 165 degrees lat. The station at Suva is operated by A.W.A. Singapore is on the Malay Peninsula. Doubtless Bay is on the N.W. coast of New Zealand, north of Auckland. Lord Howe Island is in the Society Group of Islands. From Southport to Sydney is a distance of 8510 miles. Philippine Islands are in the China Sea.

I.T. (Maitland)—Circuit O.K.

V.C. (Edenhope)—S.G. Booster Unit will serve your purpose.

D.A.D. (Via Kandos)—Queries are not answered by post. Should be 1 mfd. condensers. R.F.O. should be in list.

R.G. (No address)—It would cost you more to make than to buy. The price is 8/6.

A.E.R. (Brisbane)—Amperites may be used. Valves O.K. B406 for 2nd audio. B409 R.F. A415 detector. The PM4 valve should be used in the first audio. Choce and condenser unit O.K.

J.O. (Hamilton)—Some readers are very inconsiderate. It has been pointed out countless times that the All-Empire is essentially a short-wave receiver, and you cannot expect equal results on the 500-metre band to a broadcast receiver. All coils behave the same. A short-wave receiver, using screen grid, is usually unselective on the broadcast band.

UNKNOWN (Randwick)—There is no room in Queries Dept. for constructional articles. The Economist Eliminator and the Inexpensive B Eliminator were published in "Wireless Weekly."

W.D.S. (Croydon)—One side of the mains is always earthed, and when the earth connection is to your filaments, the valve, of course, will blow. Place a 1 mfd. condenser tested 500 volts in series with the earth lead, when it may be used on the set with safety. (See circuit next page.)

A.D.M. (Cobar)—The blister on your "B" battery indicates that it was shorted. The leads go to the windings on the speaker, and thus causes a current to flow round the coils, which, with the magnet, constitute an electro-magnet. See recent explanations in "Proving Radio." Use two 45-volt "B" batteries in series. Detector voltage about 30.

A.M.P. (Blackheath)—Due to microphonic valves. See that valves are in shock absorber sockets. Place cabinet on corner feet of sponge rubber, and place sponge rubber under the speaker also. It is inadvisable to have speaker on top of set, for, although microphonic noises may not always be prevalent, the vibration does not do the valves any good.

R.W. (Tumut)—Look to jack connections, plug contacts, and connections to speaker. If all O.K. have speaker tested.

R.L.M. (Nerang)—A409.

G.H.G. (Thornleigh)—Marnock Five.

LICENSE NO. 59298 (Toowoomba)—Carboned "B" batteries. Amplion (Australia), Ltd., are agents.

W.E.C. (Bankstown)—Yes.

W.W.B. (Bondi)—Transformer breakdown.

N.C.H. (Marrickville)—Aerial O.K. Plywood can be used for a baffle board. No additional volume. Selectivity would be sacrificed.

A.B. (Canberra)—Trouble is in audio transformers. Try a change, such as the new Igranic. Experiment with grid leaks and grid bias. Try .002 condensers across secondary of transformers, and if this does not fix it, try a 100,000 ohm-variable resistance across transformer secondary. Main trouble is that your transformers are not matching. This is an important factor in a superhet.

GENERAL—Any reader requiring complete set of "Wireless Weekly" may obtain same free of charge if he applies immediately to Mr. A. L. Thornton, 89 Trafalgar Street, Skamoner. The person requiring these copies must arrange transport.

G.M. (Baneda)—Earth the dynamo casings and try placing a 1 mfd. condenser between the brushes and earth.

J.D. (Wallisell)—Circuit correct. It is a Reinhartz 5-1 transformer. Yes, we have a few copies of the Go-getter left, 3d per copy. The circuit you enclosed is N.G. for S.W. work, unless you use S.W. coils. See Go-getter article.

I.S. (Maroubra)—You should have repeated query. Have no trace of it. Matter is prepared for publication about two weeks ahead. It has to be typewritten, revised, galley-proofed, checked, altered, proofed again, laid out, printed, and distributed.

P.H.T. (Glenorie)—Transformer 5-1. B406. Four-volt accumulator. 90-volt "B."

E.J.H. (Leichhardt)—Reaction condenser. 00025. Coil data, see "Midget S.W. R.F. Four."

D.W.M. (Gunnedah)—A Reinhartz Two. Circuit appeared in queries recently; in fact, has appeared several times. Gunnedah is a notoriously bad spot for reception. Colls—primary, 15 turns; secondary, 50 turns; reaction, 25 turns on three-inch former. Space primary and secondary 4-inch.

L.K.P. (Eastwood)—Countryman's One, Reinhartz, Old Reliable. All these circuits have appeared in queries lately.

QUERY COUPON

If you are in difficulties about reception or set-construction, let us know, and we will endeavor to set you right. Make your questions brief to the point, and, where possible, show lay-out and wiring design. Under no circumstances will answers to queries be made by letter or by telephone. All answers will appear in the columns of this department in the order in which they are received.

The Radio Information Service.
Please enclose the accompanying queries in a stamped envelope with the information Service Department at 111, Ryrie, Brisbane, in order to facilitate return by a bona-fide reader.

J.E. (City).—There is no remedy, but you might be able to improve matters by using a counterpoise instead of an earth, or using an underground aerial.

"RAIL" (Wagga).—O.K. for overseas reception.

C.C.K. (Liverpool).—The S.G. Midget R.P. Four.

W.A.B. (Paddington).—How can you expect us to help you with improvements in your eliminator unless you tell us what type is in use by you? You cannot expect to hear the stations mentioned unless you have a multivalve set, and even then conditions must be very favorable. A short-wave receiver will pick up any station on short waves.

C.M. (Ganmain).—It will be necessary to add more turns to the primary if this valve is used. This is a high impedance valve. It is necessary to use a large primary in the plate circuit to the retransformer in order to match the slope of the valve in question.

F.D. (Victoria).—Your details (of which there are none) are not helpful. You only say reception is unsatisfactory. Look up the trouble chart published recently.

"REINER" (Lakemba).—Condenser not absolutely necessary, but in conjunction with centretap steadies A.C. fluctuation and resultant signal. Two UX281's in full wave rectification—output up to 150 m.a. UX210—7½ watts. Re condensers, spacing is different, plates are of varying size and thickness.

H.P. (Enfield).—The set is a one-control Reinartz (as far as the circuit goes). But why is the B plus connected to A plus? The valves would come in (for one minute fraction of a second) against this treatment, then they would expire.

R.M. (Cremorne).—Trickle Charger N.G. for your purpose. It was "some" radio "expert" that told you the B405 valve was a power valve, and that your five valves were all power valves. Next time you see him ask him if the B405 is a special detector. Make no alterations to your set.

A.K. (Newtown).—Yes (twice).

R.E.J. (Concord).—See below.

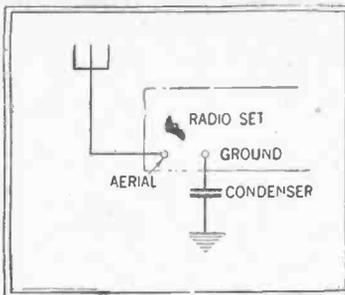
GENERAL.—Can any reader supply Mr. R. E. Jameson, 1 Beaconsfield Avenue, Concord, with a copy of "Wireless Weekly" dated February 8, 1929, containing the Kug Crystal Receiver?

W.B.C. (Campsie).—RPM (Moscow).

G.M. (Waverley).—Still 2000 ohms. Capacitive reaction is better. When variable resistance is altered, complete resistance of set is altered. Yes, be pleased to receive further particulars of your set.

K.P. (Paddington).—You did not mention the type of set or circuit used, so I am unable to help you. On the ordinary three-valve set (detector and two audios), satisfactory reception is only possible on the speaker from local stations.

G.E.W. (Hawkesbury River).—Condenser N.G. for R.P. stage. Too large capacity. O.K. if altered to .00014 or .00015. Reaction condenser O.K. if two rotor and two fixed plates are removed.



"*Subvertently a one-valve amplifier circuit was published in last week's queries, with the following caption: "Several readers write that when using a home-made 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 mfd. condenser, tested 500 volts, in series with the earth lead." The correct diagram is shown above.*

N.D. (Kogarah).—The moving plates are those near the tail of the arrow. 45-volt "B" battery.

G.R.E.C. (Parker).—If two transformers of different makes are used, try reversing primary of one transformer. If results nil, place a .001 fixed condenser across primary of first transformer.

D.C. (Coonamble).—Try reversing condenser connections (one condenser at a time), and try a .001 fixed condenser across phones, and a .002 across first transformer secondary. Loose connection whilst set is in oscillation would cause trouble. Set does not require neutralising. Sheet iron is too heavy, and is too hard to work. Would like to see photographs. VK2MO is Marcus J. Oliver, Gunnedah, who was granted a special license so that he could relay programmes from 3LO, as Gunnedah is a bad spot for reception unless one has a costly receiver. License only lately granted, and is only on probation at present.

A.F.J. (N.S.W.).—Probably potentiometer will be required to clear up carrier. Suggestion re queries N.C. It would take too much space. Aerial too long, or coils too large, or condensers too great capacity.

J.A.I. (Glenfield).—(1) 20 turns 24-gauge wire, spaced ¼-inch from (2), which should be 47 turns of the same gauge wire, spaced ¼-inch from (3)—3 turns of the same wire—all on a three-inch diameter former. Condenser 4 should be .0005 mfd., and condenser 6 .00025 mfd.

E.G. (Stockinblinral).—8 hours per day is 56 hours per week. Three times this is 168 hours' service from your battery, which is quite normal. 8 hours per day is a lot, you know. Suggest using wet batteries.

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

R. L. ARGUS (Vic.).—We have all these copies in stock. Shall we forward them? Please send cost of copies, if required.

M.E.S. (Kangaroo Valley).—Amplion Aerial, Ltd.

C.H.V. (Eastwood).—Shorten your aerial, and try changing over connections on coils, i.e., condenser to large coil, instead of small coil, and aerial and earth to small coil, instead of to large coil.

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

E.M.L. (Stannmore).—Is your supply A.C. or D.C.? If you care to advise will tell you what to do. Fixed plates to grid, moving plates to filament end of circuit. "C" coils must be increased in proportion with the plate voltage.

A.W. (Hornsby).—Yes, use potentiometer. Variable grid leak O.K. Keep leads short. Do not mount on panel. Place near grid condenser. Adjustable aerial coil O.K.

T.G. (Waverley).—Two-valve Reimartz or Countryman's Two.

T.B. (St. Peters).—We have discontinued the practice of forwarding copies on trust. Please send stamps for copy.

R.C.D. (Paddington).—Yes, you must have a B-cense before you can transmit. Crystal can be made to operate on low wave-lengths, but it is very inefficient. It is only of practical use between 200 and 600 metres. Thanks for your offer. See below.

GENERAL.—Mr. R. C. Dellono, 27 Windsor Street, Paddington, advises he has back numbers which may be had by readers requiring them if postage is forwarded.

GENERAL.—Mr. J. E. Bowman, 45 Charlotte St. Ashfield (Ring UP343), wishes to obtain back numbers of "Radio," Vol. 1, No. 8, and Vol. 2, No. 2. Can any reader oblige, please?

D.D. (Cremorne).—Your idea simply halves inductance of transformers. N.G. One det. and two audio would be better. The meter would have to be reconstructed.

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Batteries

and also the Symbol of Superiority Among



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10 MFD 9/6 8 MFD 9/- 6 MFD 8/6

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BATTERY WORRIES

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ACCUMULATORS-4 VOLT, 20 AMP.

A Further Saving—Philips' Valves
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READY FOR USE. 45 AMP. HOUR,

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CONE TYPE SPEAKER
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Contains:—

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- 2 Resistor Couplers
- 2 006 Condensers
- 1 002 Condenser
- 2 100,000 Resistors
- 2 Grid Leaks

COMPLETE,
7/6

3 Stage

Contains:—

- 1 Condenser Mount
- 3 Resistor Couplers
- 3 006 Condensers
- 1 002 Condenser
- 3 100,000 Resistors
- 3 Grid Leaks

COMPLETE,
10/-

4 Stage

Contains:—

- 1 Condenser Mount
- 4 Resistor Couplers
- 4 006 Condensers
- 1 002 Condenser
- 5 100,000 ohm. Resistors
- 3 Grid Leaks

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Fourth Floor,
38 Martin Place,
SYDNEY

Phone: B1773

Agent for:
Te-Ka-De Valves and Sets.

A.C. (Ashfield).—Cannot give you definite date yet very shortly.

J.A.P. (Marrickville).—Do not advise you to follow out this idea. Circuit would be difficult to stabilise. Use one of the condensers for reaction.

W.A.B. (Brisbane).—No alterations would be necessary for the UX210. Speaker arrangements exactly the same. Re eliminator, no alterations. Characteristics of UX222 and UX222 A.C. practically the same. Ballast lamps could be used to keep constant voltage supply.

L.M.D. (Sydney).—Sorry, no copies; see below.

GENERAL.—Can any reader please oblige Mr. L. M. Drummond, Home Sanitation, Ltd., 10 Bligh St. Sydney, with copy of WIRELESS WEEKLY dated March 1, 1929, also copy of issue containing the Marnikay.

G.J.E. (Cremorne) writes: "Some time ago I built the Go-getter as a S.W. adaptor. I immediately got the results claimed, but was very much annoyed not being able to obtain smooth reaction. Bringing the .00025 condenser into action, oscillation would be obtained with a bang and a strong whistle or groan unless I brought the plates well into mesh, say, another ten degrees. I tried everything I could think of but without result. A few days ago I tried 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 apparently wrong. The adaptor is now 'stronger than honey, and stronger than a lion.' Perhaps some other S.W. enthusiast has suffered the same annoyance, and may be glad of the information. On the broadcast waves, either hook-up appears the same."

E.R. (St. Peters).—O.K. for charger to heat up "C" battery must be used. You should have purchased a "B" and "C" eliminator. Two speakers may be connected as suggested, but series method is better. Speaker connections probably reversed.

H. B. DOIG, Lady Davidson Home, Turramurra. ASK IF ANY reader can supply him with WIRELESS WEEKLIES dated February 1 and 8, 1929.

W.B. (Sydney).—Received a message advising that you wanted a 250 turn honeycomb coil for a Reinartz receiver or something to that effect. As I think the message has been received incorrectly will you please advise your requirements.

H.G.D. (Carban) and GENERAL.—Cannot tell you the gauge of the wire, how many turns required, etc., as the sample mentioned in your letter was not attached. Please repeat query and place sample in envelope, attached to letter. Other readers please note this method of sending samples for comment.



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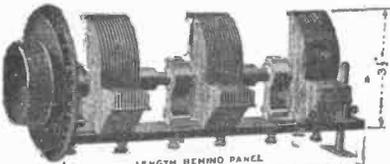


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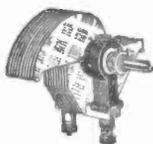
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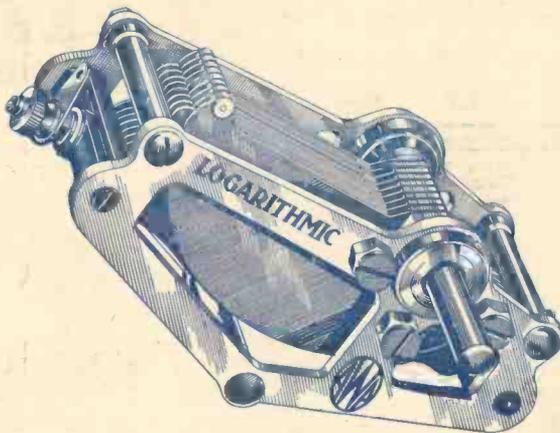
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