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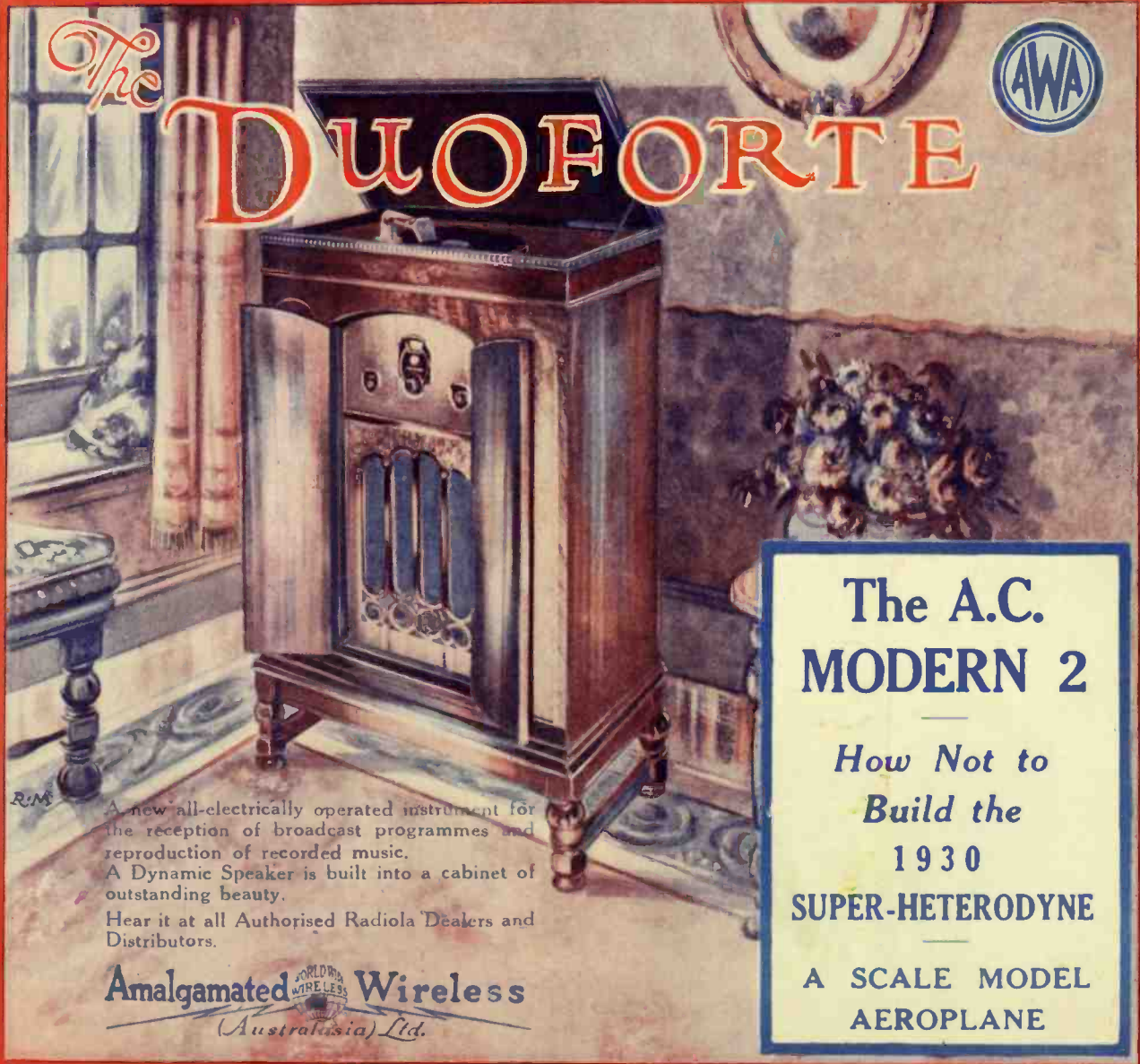
Wireless Weekly 3^d

INCORPORATING "RADIO IN AUSTRALIA & NEW ZEALAND"

VOL. 14, NO. 22

FRIDAY, NOVEMBER 22, 1929

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



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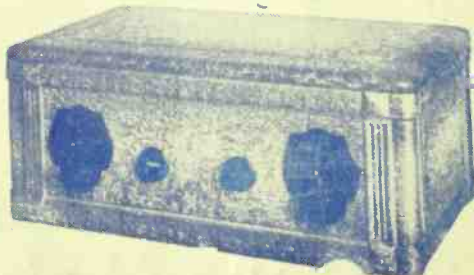


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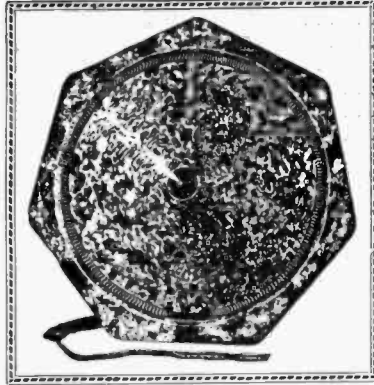


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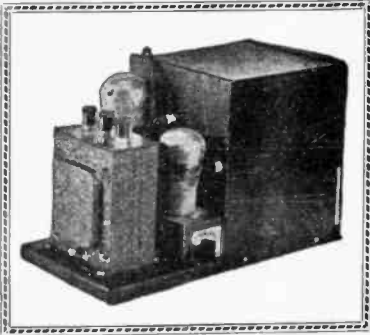
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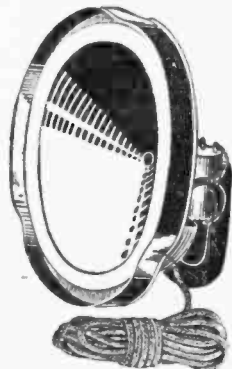
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Vol. 14, No. 22
Friday,
November
22,
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Wireless Weekly

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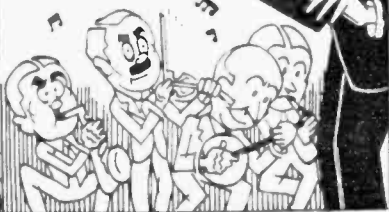
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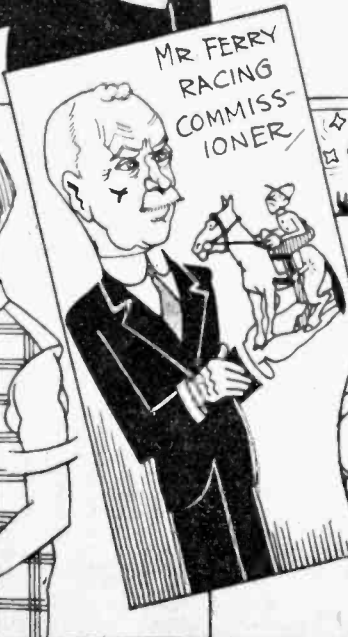
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HORACE
KEATS



BILL
RINGROSE
CONTROLS



MISS
RUTH
FURST
(COOKING
SESSIONS)
AS SHE
POSSIBLY
LOOKS



Between You and Me and the Microphone

Down Here

AS you may have expected we did not remain up there for long. We published a pamphlet, "Abuses of the Broadcasting System Up Here," signing it "Gabriel." This created quite a stir, and as it was written in an authoritative manner was causing vague speculation and even thought among the more intelligent. It might even have brought about substantial reforms if our vanity (ah, Vanitas, Vanitatem! Look at Napoleon, our greengrocer with a new delivery van, to-morrow's leading ladies who started in the chorus, yesterday's statesmen, and your own reflection in that familiar mirror . . .) if our pride in this flattering reception given our work had not led us along the primrose path which ends at the weary footlights and cries of "Author!" Immediately it became known that "Gabriel" was only a pen name for Us, interest in our composition vanished. The arguments which had before been so logical were proved to rest on faulty premises. The thoughts which had been so daringly original, the new ideas which had seemed so worth-while, had all been thought out and tried out many years before. It was agreed that anyone could criticise, and insinuated that we had probably been suborned by Lucifer to do the dirty work. The consensus of opinion was that we were quite a harmless kind of idiot, and Peter received instructions to kick us out for some other reason as soon as some other reason should present herself.

Which (she) he did.

From morn
Till noon we fell, from noon till dewy eve,
when we landed on a mountain of the softest down feathers, placed there, as we were afterwards informed, by the pioneers to ease the descent of future immigrants.

Old Knick (he prefers to be called just plain "Knick") was very kind, and after providing us with asbestos shoes and a piece of asbestos to sit down on (standard equipment Down Here), he took us round and introduced us to all the boys, from Adam to Zola. They were all very charming; said how pleased they were to see us; said they'd watched our work, and knew we'd come down to see them eventually, which surprised us somewhat. We mean about them reading "Wireless Weekly"—we didn't think it had the circulation. They explained that they received it regularly by quick delivery under the competitive method of specially chartered submarine distribution. You'd be surprised at the number of really crackjack journalists there are down here; real bang-up blokes. Homer, Virgil, Catullus, Ovid, Shakespeare, Dryden, Goethe, Milton (YES, MILTON), about a thousand of them. We took the opportunity of talking to the Greek and Latin contingents, asked them what they'd written about, and did they think it mattered very much, because we couldn't take the trouble to understand their languages when we were up above. We got some interesting information.

We wish we had space and time to tell you what it's like Down Here—how they keep cool during the summer months; how Frank Rabelais drinks beer; why Byron hates soubrettes; what we did when Helen of Troy . . . tut, tut! Tut, Tut! TUT, TUT!

But, of course, we are simply a RADIO



journalist—if it's not wireless, it's valueless. That's Us. So we took the first opportunity to ask Knick how about broadcasting Down Here. "Well, I dunno," says Knick. "You know all about broadcasting, don't you?"

"Of course, Knick; but we just thought it might be a little different down here."

"I dunno what we can teach you, James. I've been reading 'Wireless Weekly,' and there doesn't seem to be much you don't know in that paper."

"That's all you know. Tell us something, for Heaven's sa—for the love of Mike—we've got to fill a page this week, somehow!"

"Well, stop me if you've heard any of this before. We decided to begin broadcasting Down Here, so we ordered a station, and had it properly installed, so that anyone could hear it on a decent set. Then we read all the books written about broadcasting technique, including the British Broadcasting Company's Handbook. Then we burnt everything we had read—it may seem rather sacrilegious; but we did it—it was how we felt. We felt, somehow, that their ways of doing things wouldn't quite suit us. You see we're not constituted that way Down Here!" He broke off to wipe away a tear.

"Cheer up, Knick, old man," we said. "We don't doubt you did as well as you could under the circumstances. Of course, you couldn't be expected to enjoy the British or even the American or even the Australian kinds of programmes Down Here, and you can't expect to know all that 'Wireless Weekly' knows about wireless straight off the reel. It will come. It will come. Gradually you will evolve!"

"I'm very pleased to have your assurance," said Knick, bravely restraining the tears. "Anyhow, we called two committees; one of Musicians—Bach was chairman of it, and Mozart, Haydn, Berlioz, Grieg, Beethoven, Brahms, Schubert, Palestrina, Chopin, Handel, Purcell, Verdi, Wagner were among the 1097 who at-

tended; the other was of Dramatists—Shakespeare took the chair among Euripides, Moliere, Goethe, Aristophanes, Ibsen, Racine, Sophocles, Sheridan, Congreve, Voltaire, and 3671 others. They were given a demonstration of the new medium, and then requested to go away and write music and plays suitable for broadcasting. The musicians there and then decided on the best orchestral combinations, and the dramatists gave a rough and elastic form to the future drama. Then we gave demonstrations to conventions of Poets, Orators, and Talkers, and were at special pains to teach the best debaters we have—Demosthenes, Aeschines, Spinoza, Rabelais, Burke, Chatham, Ulysses, and so on; and talkers like Montaigne, Swift, Pope, Johnson, Lamb, Socrates, Epicurus, and so on, how to use the microphone. We got together a set of players—the Bernhardt, Betterton, Foote, Quin, Garrick, Duse, Mrs. Bracegirdle, Nell Gwyn, Mrs. Siddons, Mrs. Baddeley, Mrs. Yates, Kean, Irving, Kemble, Tree, and 5987 others. Then we selected 49 announcers to take their turns at the microphone. Rabelais and Demosthenes did very well on the first day, and they've improved since then. On the first night we opened with a symphony by Beethoven, specially written, and followed on with works by Mozart, Schubert, Debussy, and Scarlatti, ending up with a special radio opera by Wagner. We thought that was a wonderful night; but we've improved a good deal since then. It may interest your friends Up Above to know that Schubert heard his Unfinished Symphony over the air for the first time the other night, and was so pleased with it that he put on the two final movements, which will be broadcast as soon as possible—that will be in about two months.

"One of our big features just now is Cleopatra's morning talk, 'My Love Affairs.' It's been going for 11 months, and looks as though it will last out the year. On Monday evenings we have what we call a 'Philosopher's Circle,' when all the philosophers Down Here can drop in and discuss all kinds of questions, and—"

"Do they have to submit typewritten notes of what they are going to ask, and reply before they begin?"

"My dear Junnie! Why ever should they do that?"

"Nothing. We just wondered. . . ."

"Do you think you've got your page yet? I hate talking about anything we do Down Here, you see. People rather look down on us, I suppose, because, of course, we're out of touch with the latest developments, and our programmes aren't anything at all like the B.B.C.'s. But they're good enough for us. We get along all right, and the people Down Here have all been stripped both of hope and desire by adversity. They do not grumble."

"Oh—er—no! No. They do not grumble."

"One of these days," said Knick, "we expect to be able to tune in to the programmes Up Above. That will be a real treat. That will help us considerably."

"If we were you, Knick, we wouldn't worry too much about that. You might be—"

"We might be disheartened!"

"Um—ar. Well, Knick, you are indeed, a fool—a damned fool!"

James



Little Tommy Tuck-er
Jokes for his sup-per.

The ANATOMY OF RADIO HUMOUR

By Dr. Charles Lawrence



While he sings he's in despair—
Soon he'll find his cupboard bare!

A MAN asked me: "Where do you get all your jokes?" I told him I write them all myself. He said, "Then you're older than you look."

Of course, it wasn't true. All my life I've been a kind of search party for jokes. Novels are the best field.

Novelists are only human beings, and I have yet to meet the man who hasn't at least one pet joke. So you can always be sure of finding a good joke in a novel, because the novelist takes his first opportunity and puts his own pet joke into the mouth of one of his characters. Literary people may be interested to hear that I view the ever-increasing output of new and racy fiction with equanimity.

I have also been helped in my search for new ideas and fancies by appreciative listeners, who send me countless good stories, many of which are from my own repertoire. My grateful thanks

Some, and let me say candidly, not many, of my stories are from my own brain; but if you object to even such a humble statement, I will not press the point.

They have pointed out ("They" being all the other excellent comedians who have written about radio humor) that humor on the air is different from stage humor, because it denies the comedian God's greatest gift to comedians—a funny face. This is quite true. People who have seen me on the concert platform often tell me they miss my face on the wireless, and when I tell them that is just as well, as I never did like superannuated tomatoes, they begin to talk about the degenerating influences of modern civilisation. However, it is quite as true of the radio audience as of any other kind of audience that you must adapt your stories specially for the occasion.

Here is a story of a typical English style:—The doctor was called out at midnight to a three months' old child—very ill. He examined the child, and the mother said, "Well, doctor?"

"I can do Absolutely Nothing."
"Oh, doctor! Can't SOMETHING be done?"

The child opened his eyes at this point and said Absolutely Nothing! That is a story which is no good for broadcasting; it is too subtle. It requires a good deal of thought, and if everyone has a set like mine they will be too busy trying to catch what's coming next, and won't have any time to ponder over what's gone before.

The best subject for humor on the air is the commonplace. The greatest radio joker

is unquestionably John Henry, of 2LO, London. He talks about his wireless set, his wife, the washing on the line (because England's climate is cold—there would scarcely be sufficient material for one song on Australian clothes lines). My own experience is that a joke told about my wife is always certain to get a laugh—in a hall, that is—one reason being that at smokers and lodge functions nearly all the audience are married men who have made the gathering an excuse to GET OUT. This kind of thing:—

When I was a young and happy man I used to take the wife—we weren't married then—out to the theatre. Used to go round to her place, and wait by the front gate from half-past seven until she came down. Used to see her shadow crossing and recrossing the window blind; wished I had the courage to go in. It's just the same now, only much later, of course.

That is quite a common-place feeling—something everyone understands, although perhaps it isn't quite suitable for broadcasting. But it illustrates the kind of humor. A prolific laugh-getter, specially suitable for broadcasting, is the joke about some ailment, excluding wives and mothers-in-law, such as the story of

THE POOR MAN WITH APPENDICITIS.
He was operated on—very successful operation—sewn up, doing splendidly, and the doctor called. "How're you getting on?"

"Good oh!"
"Sorry to tell you we'll have to operate again. We left a pair of scissors inside."

XMAS HOLIDAYS

When you go away on your Xmas vacation this year take a portable set with you. It keeps you in touch with things, stock exchange quotations, sporting results, and, when you like it, music. It is also an excellent thing to have about for impromptu dances.

Ross Hull will describe how to make a four-valve portable receiver in the next issue of "Wireless Weekly." Look over its specifications, anyhow.

They operated again—very successful operation—got scissors—sewed him up, doing splendidly. The doctor called. "How're you getting on?"

"Good oh, doc. Reckon I'll be up next week, doc."

"I wouldn't be too sanguine. Afraid we'll have to operate again—left a sponge inside."

They operated again—very successful operation—got the sponge. Just started to sew him up when he came out of the chloroform. "Eh, doc, I wouldn't worry about sewing it up—put on a button and button it up."

That is one of my most successful stories. People don't have to think about it, and the humor piles itself up with each gruesome repetition. Generally, though, the best kind of story for broadcasting is a short, pithy affair—two sentences, if possible, like the one I begin this article with (which, of course, has been well aired); or the two married friends who meet. "You should know my mother-in-law—she's an angel!" Lucky devil! However, you heard that some time ago.

I think it is much easier to get humor over the air with two or more people. The second person can laugh at the joke and thus indicate the point—I am quite serious; you don't know what a hard job it is to put humor over the air. A great help in the future will be the sound effects that can be used as backgrounds for one-man sketches.

I find that people most appreciate my extempore stuff at outside shows and hospital concerts and soldiers' concerts, where you can get great fun while announcing song titles, or from the people around you, or from some topical subject. I've cracked some damnable jokes; but people shrieked with laughter at the time, because they suited the situation.

It is a peculiar thing, too, that people who listen in their sitting-rooms to broadcasts from halls and hospitals seem to appreciate these horrible apologies for humor as much as the people sitting before me. I think this is because they are drawn, by the laughter of the crowd, into the crowd itself, and thus participate in its moods, and this is a good thing, for wit, in its highest sense, is often cruel, and always exacting on the mind; but pure, animal laughter conduces to good health.

So much for that; or so much for so little. The backbone, mainstay, and so on of the radio comedian, entertainer, and so on is the

song at the piano, patter, song, or so on. I don't know when the song at the piano began, or who began it; before broadcasting came in, it was said and sung at concerts, where music-hall humor wouldn't go down, and where something more "refined" was in demand. It has always been produced in great quantity by English writers; some is done in America, but I find that the English stuff is by far the more suitable type of humor for broadcasting in Australia. Ninety per cent. of my material is English. Of course, you can't just repeat the words as they are written in England. Many have to be entirely re-written; and some are of no value because they deal with types we don't know out here, such as the English "Johnny" and "Coster" types; however, when an expert like Mr. Frank Ryan handles the "Coster" it is an entirely different story.

That brings me to another point; a story told by one man may sound very funny; but told by another is distressingly humorless. The moral is, to tell stories that suit your style; and, therefore, you have often to interpolate your own jokes into written mono-

logues, or change the idea to suit your methods.

I have done at least three hundred songs and monologues since I have been broadcasting, and I have a library of, I suppose, about five hundred. Of these, about a hundred and fifty are useless—out of date—the humor is typically dead. Fifteen years ago aeroplanes and submarines were good novelties to joke about—now they are accepted things, and whiskers—and what jokes there were about whiskers!—are only used nowadays by men too mean to buy neckties (so they say). I am in touch with all the London publishers, and get a copy of everything as it comes out.

The thing to guard against is the *Van Repetition*. For my private engagements I run a card system so that I never repeat myself before any assembly; but on the air it is different—the whole audience hears you in one night, so, while I am still telling stories I have been telling for three years, I never repeat a story I have told over the air, except by request.

I get hundreds of letters during the year; half of these are requests for copies of num-

bers I've done over the air. The writers forget two things—firstly, it's my stock-in-trade and their amusement; secondly, I'd need a secretary and a musical notationer to answer them. My letters are mostly critical; sometimes they bring praise; and I don't mind critical letters so long as they aren't *VERY* rude. I sometimes get letters from men telling me how much their mothers enjoy my humor, and I feel rather proud of those. To entertain, I am sure, there is no the slightest necessity to descend to the vulgar, and I take a size 7½ in haio. I put over a good one about letters some time ago, which, perhaps, you won't mind. . . . No? I said: "If anyone likes anything Mr. Lawrence does, a letter would please him very much; he will be more pleased if that letter is addressed to the management. If anyone doesn't like his humor, well, they also had better write to the—ar—they'd better write to Mr. Lawrence personally."

Perhaps the most important question to be decided is whether a man may marry his widow's niece. Frank Ryan asked me the other day, and any information on this matter will be most welcome.

A.B.C. WOMEN'S ASSOCIATION SESSION

Conducted by Miss Gwen Varley

Programme for week commencing Friday, November 22, and ending Thursday, November 28.

SPEAKERS AND THEIR SUBJECTS.

FRIDAY, NOVEMBER 22.

10:40: "Can You Swim?" by Miss Gwen Varley. Miss Varley will illustrate the value of swimming from the point of view of exercise and safety, both for adults and children. Stories of world-famous swimmers' lives will be told as an impetus to encourage listeners to join the A.B.C. Women's Association swimming classes, held on week-day mornings at Coogee, Balmoral, and Lavender Bay. Professional coaches are employed at each class. Also a business girls' club will commence on Monday, December 2, at the new women's baths at 6.30 p.m. Over 100 women learnt to swim last season through the swimming classes organised by Miss Varley.

10:50: "Home Confectionery," by Priscilla (Mrs. L. C. Norton). Priscilla is one of the most popular speakers for the A.B.C. women's session, and has many ardent disciples in town and country following her expert advice in sweet making.

MONDAY, NOVEMBER 25.

10:40: "Camping at Christmas Time," by Miss Gwen Varley. Following the advice of Miss Varley last Christmas time, many listeners camped in the various camping spots she advised over the air, and letters of appreciation and delight flowed in. This year Miss Varley is making a study of the essentials for camp life only in order to help those who are novices in camping.

10:50: "Some Outstanding Women in Europe," by Mrs. E. J. Proud. Mrs. Proud, who has recently returned from a world tour, will introduce to her listeners some of the noticeable women of the British Isles and the Continent she met. As a leader in the Feminist Club she had many introductions to women of note.

TUESDAY, NOVEMBER 26.

10:40: "A Talk from our Health Bureau," by Miss Gwen Varley. These health talks by Miss Varley are among the most popular of her daily sessions. Hundreds of women write in seeking advice for physical exercise to reduce their weight, strengthen weaknesses, etc. These talks are serving a very direct need for many women.

10:50: "Thrift Talk, Some Economical School Lunches," continued by Miss Janet Mitchell. This talk was so much appreciated, given by Miss Mitchell two weeks ago, that

MR. C. F. MARDEN, Victorian manager for the Australian Broadcasting Company, has been appointed to the new position of Superintendent of Broadcasting Stations for Australia.

Mr. Marden's duties will be to provide for a close co-ordination between the Company's stations, and generally to establish and supervise a standard of broadcasting transmissions throughout Australia. The appointment is the first move in the greater broadcasting plan, which extends throughout the Commonwealth when the A.B.C. take over 4QG and 5CL in January.

many mothers have requested another similar talk. Miss Mitchell gives advice on how to cater for school children's lunches with variety and nutrition.

WEDNESDAY, NOVEMBER 27.

10:40: "Tennis Coaching," by Miss Gwen Varley. At least 500 members of the A.B.C. Women's Association Tennis Clubs tune in without fail on Wednesday morning to hear Miss Varley's regular talks on tennis coaching. Tuesdays and Thursdays are the A.B.C. Women's Tennis Club days in most of the suburbs, and the theory they have received over the air is endeavored to be put into practice by her ardent tennis followers.

10:50: "Fashion Talk." Colors we love beige. By Mrs. L. Brittain. Some women have proved their complete faith in Mrs. Leslie Brittain's advice on the air for dress when they have appeared at A.B.C. functions wearing a dress made exactly as instructed on the air—colors, pattern, shoes, hat, even down to the handbag. Many women write into Mrs. Brittain for advice in dress, which she gladly gives.

THURSDAY, NOVEMBER 28.

10:40: "Entertaining at Holiday Time," by Miss Gwen Varley. Many novel and helpful suggestions will be given by Miss Varley for the woman who will entertain during summer vacation in the city or country.

10:50: Furniture and Antiques. "Modernist and Antique Furniture Contrasted," by Miss R. Wilson. Miss Wilson, who has had years

of considerable experience in the study of interior decoration and art, will continue her series of very interesting talks, which are of special interest to the woman who studies her home from the artistic viewpoint.

CONTINUING her series of talks on our famous actresses, Miss Agnes St. Claire will give an entertaining sketch of the life of Sarah Siddons, who in the early part of the eighteenth century was acknowledged to be the greatest actress of her time. In these days of high salaries for star artists it is interesting to learn that Sarah Siddons was engaged by David Garrick to appear at Drury Lane Theatre at a salary of £5 per week, a princely sum in those days.

ALBAN WHITEHEAD, the young Australian baritone, who has recently returned from England, will be on the air from 3LO on November 25. It will be remembered that this young vocalist was specially recommended by Dame Nellie Melba to go to Europe, where he made a very favorable impression. He terminated a successful engagement at Drury Lane to return to Australia, but hopes to further his continental studies during the coming year.

"UNDER the Linden Tree," a musical fragment relating to the life of Schubert, will be given from 3LO on November 25, and will include some familiar melodies. Possibly there is no more romantic story than the life of this master musician, who died at the age of 33, and had composed over a hundred melodies before he was 19; and who, being too poor to buy manuscript paper, wrote his famous "Serenade" on a sugar bar. "Under the Linden Tree" has been specially written for the radio by Gordon Ireland, who is arranging the series, "Incidents in the Lives of Great Musicians," for broadcasting.

BEATRICE OAKLEY will make a return visit to 3LO on November 25. Miss Oakley was one of the quartette who originated the "Old Time Nights," and has made several successful concert tours of Victoria. She gained the Melba Scholarship last year.

NORMAN BLAND and his partner will make their first bow before the microphone on November 25 at 3LO. Though they are well-known performers on the concert platform, their bright and particular brand of humor will be quite new to listeners. They appear as "Almost Gentlemen."

How Not to Build the 1930 Super-Het

By
ROSS A.
HULL

WE have been criticised quite frequently for consistently failing to make sufficiently elaborate claims for the apparatus we describe and discuss. Because we do not say that the latest two-valve set will bring in Japan, some folks get the idea that it must be quite a bit of a washout.

Apparently they have been in the habit of taking all published claims about radio sets with a pinch of salt. Consequently they find our claims, when salted, most unimpressive. From the very start we have endeavored to be sincere and reasonable in all statements, and for that reason we have been unable to make any definite promises whatever.

Looking back through the "Wireless Weekly" file we find that with one exception our statements of receiver performance could by no means be considered extraordinary or even unusual. The exception, of course, is the 1930 Super-Het. Whether all our claims are discounted by about 50 per cent. or not we do not know, but it appears quite clear that many enthusiasts thought we were talking through the back of our neck when we said the things we did say about the Super. A great many of them built the set just the same, but long before they had it correctly adjusted they apparently decided that their expectations had been fulfilled.

In several cases which we have investigated personally the owners of the receivers were quite delighted with them until we pointed out some missing bias resistors or by-pass condensers which had held the amplification down to about half that possible! For the possible benefit of enthusiasts who are in doubt about the matter we will say again that, in our opinion, the original model of the 1930 Super has greater overall gain, more desirable selectivity, and better musical reproduction possibilities than any receiver we have yet handled. And we say that after having operated the set under a variety of conditions for about two months.

Our experiences with the receiver and our interest in the heavy correspondence concerning it have been a splendid object-lesson. From it we think we have learned quite a

lot about the psychology of the home-builder of radio sets. From it we have gained many ideas on "How Not to Write Articles for Set-Builders."

The fundamental difficulty is that enthusiasts will not read the article describing the set they are attempting to build. They look around for some statement of what the set will do, and if it suits them they make a wild mental grab at the circuit. Nothing else seems to matter. We have run into many instances where the super was built and put into operation with the sole guidance of the circuit diagram and the list of parts. And when the sets failed to operate their builders did not worry to look through the articles—they merely wrote, telegraphed, or telephoned in to the office to ask why.

The unsuccessful builders with whom we have come in contact include chiefly fellows who have built many sets before and who consequently thought that their experience made it unnecessary to look at anything but the circuit. As far as we can judge, the successful sets have been built almost exclusively by enthusiasts with definitely limited experience, who proceeded cautiously and digested every word of the instructions before making a start.

Our first suggestion for the owners of Supers which do not perform in the way we described is to turn up the two issues of "Wireless Weekly" (September 27 and October 4), and read the article, through thoroughly. Particular attention should be given to the second of these, in which the adjustment and operation are detailed. It may be possible for the Super to be put into operation without following the exact procedure outlined, but we are inclined to doubt it.

The Important Items

At least a few letters or telephone calls have arrived every day since the articles were published, asking whether a Ferranti Resistor could be used in place of the one specified for R25, or if the last valve socket could be of a different make. Some have been held up for weeks because they were unable to get some of the components specified when other types would have been just as effective.

The 1930 Super Heterodyne, we consider, is capable of a better performance than any other receiver available in Australia to-day. At the same time, it can be a miserable failure if it is not built and adjusted with care. We can predict nothing but trouble under any of the following conditions:—

- 1 If the set-builder, irrespective of how many other sets he has built, will insist on building the receiver from the circuit without reading the two articles and understanding them fully.
- 2 If the builder fails to grasp the purpose of the various components and yet attempts to use his own judgment in the selection of parts.
- 3 If the would-be super-het. owner does not make quite certain that the coils for the set are wound exactly in accordance with the directions given.
- 4 If he fails to select a battery eliminator which is capable of supplying at least 200 volts at 45 milliamperes and a filament supply transformer which will serve all valve filaments at their rated voltage.
- 5 If the builder, without a very detailed knowledge of just what he is doing, changes the lay-out of the apparatus, or uses a wooden base-board with the wiring above it.
- 6 If the enthusiast will not adhere to the instructions given concerning the placement of by-pass condensers and resistors, and will permit unfiltered supply leads to chafe hither and thither across the outfit.
- 7 If the intended distance conqueror declines to adopt the adjustment procedure specified, and adopts instead the old-time cut and try hash method.

It is quite impossible to mention all the makes of components which would serve in a particular role, but it must be understood that it is only in rare instances that components of one make cannot be replaced by another providing the electrical characteristics are similar. A study of the article usually will provide some idea of just what the components are to do, and what rating is necessary, and nothing much more than common sense is then necessary to make a selection from apparatus available on the market. Let us refer to the original circuit, and see just what are the essentials.

Such items as valve sockets, dials, the panel and baseboard are inconsequential. Just so long as they are mechanically sound they will serve. By-pass condensers such as the "C4's" are more important. Some types are wound from long strips, with connections at one end. They are unsatisfactory for by-pass work at radio frequency. Aside from this, the condensers may have



That awe-ful Super-het. feeling—when you haven't followed the instructions and tried a few "improvements" of your own.

Some Frank Advice For Super-het Builders

any capacity above that specified and any voltage rating above about 400. The resistors R5, in series with the screen grid leads, do not carry appreciable current, and for this reason they may be even of the grid-leak type (not wire wound). Their resistance rating may be anything between 1000 ohms and 25,000. The plate feed resistors R6, R7, and R8 are required to carry the plate current of the various valves, and should preferably be wire wound. Providing their resistance rating is approximately in accordance with that specified, they will be satisfactory. The bias resistors R1 and R3 are a different story. They also carry the plate current, and should be wire wound, but their resistance rating is quite critical. Their correct connections cannot be obtained from the circuit diagram—a fact which has caused much worry for us.

Importance of Coils

Of the greatest importance are the coils used in the receiver. In this connection we would explain that we are not responsible for nor have we any material interest in any coils presently available on the market. Many readers apparently think we have. We fully appreciate the importance of the coil constants in this receiver, and we do not see why the receiver should operate if the coils are not wound in accordance with the directions given in the receiver description. Liberties may be taken with some of the coils, but only if a clear understanding is had of their whys and wherefores.

If the receiver appears to be quite normal in every other respect we would suggest that attention be paid to the coils. L2 and L4 should merely be of the size necessary to permit tuning over the broadcast band. If they are of incorrect size the only result will be that the set will not tune to the top or the bottom of the band, as the case may be. L1, likewise, is not of very great importance. About 15 turns wound in a hank and placed at the grounded end of L2 usually will be satisfactory. More turns will mean greater signal strength but broader tuning, while less turns will mean higher selectivity and lower signal strength.

The same applies to L3. The 40 turns specified, if wound in a hank and placed at the grounded end of L4, will usually be in order. As many as 60 turns may be used, however, to the tune of considerably greater gain but broader tuning.

The Oscillator Coil

The oscillator coil unit is of the greatest importance. In the first place, the plate and grid coils must be connected in the correct direction, otherwise there will be no oscillation, and complete silence in the receiver. Providing the coils are wound in the same direction, the correct connection can be determined simply by examination. Assuming that the winding is started at the grid end of L6, the winding of L5 will go to the positive H.V., and the finish to the plate. The coupling coil L7 may be connected in either direction. In the original receiver, L6 is wound on a 2in. tube with 55 turns of 24-gauge d.s.c. wire. L5 is 30 turns, wound in a hank and glued in the filament end of L6, while L7 is also a hank of 30 turns glued inside the grid end of L6.

Both L5 and L7 could be increased to about 45 turns in some cases, with a possible improvement in overall gain. Insufficient turns on either or both of these coils means insufficient coupling. This in turn results in lowered signal strength. Excessive coupling will be found to result in broad tuning and the creation of several tuning spots for near-by stations.

The number of turns on L6 influences the

tuning range of the oscillator, but the tuning of the intermediate frequency amplifier has the very same effect. The 55 turns, in our receiver, only serves if the intermediate frequency amplifier is tuned with almost the maximum capacity setting of the Formodensers. At lower settings, corresponding to higher intermediate frequencies, the oscillator will not permit the entire band to be covered.

The intermediate frequency transformers are also of very great importance. We still strongly advise the use of 300-turn honeycomb coils for the secondaries and 280-turn hank-wound primaries. The slot-wound secondaries will operate, but it is certain that they will mean a sacrifice in the gain and selectivity of the intermediate amplifier.

Operating Voltages

We cannot see any reason why the receiver should operate with full effectiveness if an eliminator incapable of supplying at least 200 volts at 45 milliamperes is used. Just because an eliminator is of good make or highly priced it is not necessarily suited for the work. Many of the well-designed and highly-finished eliminators are capable of supplying only 150 or 180 volts, and then only at a load of 20 or 30 milliamperes. They are highly satisfactory when operated in the manner intended by the manufacturers, but they are entirely unsuited for a receiver of this particular type.

As we have stated before on several occasions, the bias voltage for the screen-grid r.f. amplifiers is quite critical. It is obtained from the resistors R1 and R3, which are connected up in a special manner. As we stated on page 20 of the issue of October 4, the resistor R1 is of the 900 ohm centre-tapped type, but only half of it is used in circuit. The resistor R3 is of the same type, but, to repeat our previous words, the two halves of the resistor are connected in parallel. This value is half that of the bias resistor for the first valve, since the plate current for the two valves is flowing through it. We have not spoken with any builder of the super who took any notice of these instructions.

The one improvement which we can suggest in the receiver is a rearrangement of the two resistors R11 and R12. The scheme is to connect both the resistors between the

positive high voltage lead and ground. The moving contact of R11 is then connected to the screen-grids of the r.f. valves as before, and constitutes the volume control. The slider of R12, however, is connected to the screen-grids of the two detectors in order to provide a separate adjustment of their voltage. In this way the detectors may be made more effective without influencing the operation of the r.f. valves.

Constructional Troubles

Experience in the construction of two crystal sets and three valve sets apparently has been considered ample justification for changing the layout and the general construction of the set in a dozen different ways. As a result, enthusiasts with inflated ideas on their own abilities (since deflated) have fitted themselves out with a splendid-looking affair, which could not possibly function correctly. The original receiver was provided with quite elaborate and costly filter resistors and by-pass condensers for a very definite reason. Furthermore, the layout was so planned that these by-pass and filter units could function in the correct manner and justify their existence. When these units are not mounted at the very beginning of the wires which they are supposed to isolate, they are splendidly useless, and the money spent on them might just as well have been thrown away. Here again we can only suggest careful study of the original articles, in which this point is discussed at length.

We have seen several supers in which an attempt was made to assemble the apparatus on a wooden baseboard, with all wiring above it. The result in each case was not satisfactory, particularly in view of the great added difficulty in wiring the set. We firmly advise the use of a metal base with all by-pass condensers, resistors, and all filament and high voltage leads below it. All by-pass condensers must be run directly to the metal base by the shortest route possible. They must on no account be connected to "ground" wires, which chase all around the set before making contact with the metal chassis.

The All-important Tuning

The particular arrangement of the screen-grid valves in this receiver simplified the preliminary adjustment of the set very greatly. One valve at a time may be switched out of the circuit, and the location of any possible fault localised in a few moments. We spoke of this in the second of the original articles, and of the manner of tuning the intermediate amplifier, but most of those who have had trouble were unaware of the fact.

In first tuning the receiver the idea is to connect the plate lead of the first detector to the wire, which ordinarily connects to the plate of the second detector, thus converting the set into a three valve affair, with one r.f. stage. The r.f. stage is then adjusted, and the first detector and audio valves put into condition. At this time the plate of the first detector is connected to the lead, which ordinarily goes to the plate of the second intermediate amplifier, and the set is then a super with an intermediate transformer, but no intermediate valves. This permits a check of the oscillator and second detector, and makes it possible to select an intermediate frequency which suits the oscillator and avoids harmonic interference. In the manner detailed in the October issue the remaining intermediate transformers are then tuned to the last one, and the entire set put into correct operation adjustment. When we suggested this procedure we were not just filling space—we were endeavoring to avoid the problems which will certainly crop up if no orderly sequence of adjustments is attempted.

SPECIAL XMAS NUMBER

Watch for the special Xmas number of "Wireless Weekly," to appear in a few weeks.

Enlarged with a wide variety of topical features, illustrations, short stories, and technical articles, it will be the best issue ever produced.

Among the outstanding articles will be constructional details for a special three-valve receiver of unusual design.

Do not miss this special number. Ask your newsagent to keep one by for you.

JIU-JITSU for women

THE misfortune of bodily violence is not confined to men, as recent assaults and vitriolings show.

Social conditions, conventionalities, lack of opportunity, and natural physical disadvantages combine to place the fairer and weaker sex at the mercy of the violently disposed. The opportunity of defending herself by the various ways that man has contrived is practically denied to woman.

Not altogether, however. Since the introduction of Jiu-Jitsu, which is not beyond the capabilities of woman as are other forms of self-defence, a chance is afforded to reduce, if not to destroy, the physical inferiority to violently disposed man.

Jiu-Jitsu, depending as it does almost entirely upon technical skill, as opposed to sheer brute strength, is peculiarly adapted to women. It is not insisted that any woman who has become thoroughly acquainted with Jiu-Jitsu (here I would like to insert a word of caution for the credulous against advertisements which profess to transform the beginner into an expert after three months tuition by post) will inevitably overcome and disable any masculine assailant irrespective of the disparity in weight and muscular power. Such a statement is, in my opinion, misleading and mischievous.

Muscular Force Required

As I said before, the Japanese art is not perfect, because we are not perfect; and it is an exaggeration to declare that muscular power is of no account in the successful performance of the very many clever tricks which constitute Jiu-Jitsu. A certain amount of muscular force is required, but there are a large number of holds which may be performed by the exercise of quite inconsiderable effort—and, therefore, well within the powers of the average woman—which are also sufficiently powerful to render the victim perfectly helpless.

To get the victim, however, into such a position that these holds can be obtained, or to defend oneself until the opportunity is presented to use them, requires certain strength. Many very keen enthusiasts will declare that, correctly performed and correctly timed, the requisite strength is no greater than that required to move one's own arm, hand, or foot, as the case may be. This is true, to a certain extent, and may well be demonstrated in exhibition matches; but in an actual encounter when an assailant is excited, and any and every means is open to accomplish his object, the desirability of waiting the precise opportunity for any particular trick may be very doubtful. If one of these opportunities do not occur, another will, declares the enthusiast. But we have yet to see it practically demonstrated that when no limit is placed on an assailant's actions the clever-looking, simple moves of Jiu-Jitsu are invariably successful.

Jiu-Jitsu, however, is eminently a science of self-defence suitable for women: it is only when one has acquired a knowledge of Jiu-Jitsu that one can say how suitable. For there are limits. Perhaps it might not be possible for a small lady to seize a too attentive Herculean stranger by sleeve and coat

By
FRED
JOHNS



lapel and throw him clean over her head, and to repeat the operation with variations which leave him a limp, groaning handful for the police, as was once reported in a New York newspaper. It is such exaggeration which leads many to believe that Jiu-Jitsu is greatly over-rated, and cause them to assert that the woman knowing Jiu-Jitsu would fare no better than her ignorant sister in a genuine hand-to-hand scuffle with a male opponent.

But, viewed from other standpoints than its utility as a defensive science, this Japanese art has much to recommend it to ladies. The practice of the art induces grace of carriage, suppleness of the body, and lightness of movement without fear of hardening and coarsening the muscles, and thereby spoiling the slim contours that the fairer sex desire to-day. Jiu-Jitsu teaches one to walk lightly, to overcome any stiffness of bearing, and gives elasticity to the figure and a brightness and quickness to the eye far beyond that which may be acquired by any gymnastic exercises, while it neither requires nor causes any appreciable muscle development.

Practice at Home

Still, every woman does not aspire to become a competent exponent of the art. Many would be content to practise at home some of the more effective Japanese tricks, and in time acquire such dexterity that a long railway journey alone, going home late at night without an escort, or the greatest of all feminine horrors—the staying alone in a house at night, may be undertaken without the slightest fear of disagreeable experiences with night prowlers or house-breakers.

Let me take, for instance, a simple arm hold, of the terrible effectiveness of which I have frequently had unpleasant proof while practising. It is a hold which any woman of ordinary strength could obtain on a would-be assaulter who laid his hand on her chest or shoulder, and which, properly performed with

The official wrestling announcer for the A.B.C. describes these holds in the article below.



the quickness which is essential in Jiu-Jitsu, would bring the brawniest man flat on his back with force and suddenness that would severely surprise, not to mention hurt him, and in such

a position that a further pressure on his limb would leave him crippled and harmless.

Assume that the assailant has placed his right hand on the shoulder of the lady. With lightning quickness this lady will grasp his arm by wrist and elbow, as shown in figure 1. A slight effort only is required to bend the limb backward so that the hand approaches the shoulder. As shown in figure 2, the lady then brings her right hand under the armpit of her opponent, seizes his hand above her own wrist, and places her right leg behind his right leg. Then, with a lightning-like movement, straightens out her right arm, and presses down with her left arm, keeping a firm hold with both hands while doing so. He will go heavily to the ground.

It may be objected that a woman would not have the strength to put the arm over the shoulder and so effect the hold. That is so. A strong man might not be able to do so if his opponent realises what is going to happen, and keeps his arm rigid. But this move is not accomplished by force. Its efficacy lies in its application by surprise at the right moment.

On such an unyielding surface as asphalt or paving stones the force with which the fall is made would be sufficient to disable the victim, for he could not save his head from severe contact with the ground. Even if he was not actually stunned he would generally have conceived so great a respect for his conqueror that he would be afraid to molest further. It will be found that a bully is generally a coward at heart.

If, however, the fall was not severe enough and circumstances demanded that nothing be left to chance, the throw may be followed up by the lady pressing the right knee on the upper part of the captured arm, and forcing the hand back up the forearm, keeping a good hold of the wrist. Or, better still, twist the hand backwards as if to twist it off the arm.

This Week's Programme Personalities

Wally Baynes, Comedian

WALLY BAYNES, who will broadcast from 2FC on Tuesday, November 26, has made his greatest successes in comedy. He was brought up in the atmosphere of the theatres, but left the profession to enter the Navy. Later he came to Australia, and has been playing in comedy and vaudeville ever since. He has toured on the Tivoli circuit and with several costume comedy companies, besides taking the leading humorous parts in comic opera. Since his first broadcast four years ago in a concert at the Sydney Town Hall, Wally Baynes has been constantly "on the air." "The fact that a radio audience cannot see you makes a great difference in comedy work," he said "especially with a face like mine." (Exhibited).



He is a member of the National Broadcasting Company's Orchestra and has done a great deal of broadcasting both in Sydney and New Zealand. Mr. Aspey recently won the violin championship at the Radio Elsteddod, and intends to go to Europe very shortly to complete his studies.

Vincent Aspey, Violinist

COMMENCING his musical career at the age of nine Mr. Vincent Aspey quickly adapted himself to the violin, and at the age of 11 he played before the Governor-General, Lord and Lady Jellicoe, at a reception given to them at Huntly, New Zealand.

Mr. Aspey, who has not yet reached his 21st year astounded New Zealand when he won the 1925 Gold Medal for the open solo violin championship at Auckland. After winning this medal he received some very helpful advice from the famous violinists, Zimballist and Helfetz, who heard him play their own compositions.

Mr. Aspey came to Sydney 18 months ago to study at the Conservatorium under Mr. Gerald



Walenn for violin, and Mr. Alfred Hill for chamber music, gaining a distinction for both subjects at the 1928 examination.

During the visit of the Williamson - Melba Grand Opera Company he played obligati to the songs of the well-known tenor, Angalo Minghetti, at his farewell concerts held at the Town Hall and Her Majesty's.

He is a member of the National Broadcasting Company's Orchestra and has done a great deal of broadcasting both in Sydney and New Zealand. Mr. Aspey recently won the violin championship at the Radio Elsteddod, and intends to go to Europe very shortly to complete his studies.

THE fascinating subject of stamp collecting will be discussed from 3LO by Mr. C. R. Franklin on November 30, when rare specimens and first prints will be described. This hobby is possibly one of the most popular amongst boys of all ages, for, apart from the sheer joy of adding to the collection, it is a great link with the history and geography of other countries. Mr. Franklin is a recognised authority on his subject, and his talk will be of more than passing interest.



AN ROY SEES CONRAD CHARLTON—NIGHT AN NOUNCER FOR 2FC.

A TALK which should appeal to all lovers of beautiful homes will be given from 3AR on November 26 by Miss Lucy Ahon, who will discuss color in draperies and furnishings. Under the title of "Satisfying Color Hunger," Miss Ahon will suggest some original color schemes for the person of moderate means, and listeners bent on transforming a dull, uninteresting room into an apartment of grace and beauty should make a note of the date.

AN ODE ON MR. COOPER

O tell me where the Iris grows!
Or where the Bougainvillea blows,
Or the red Rose
Or Pansy double-dyed!
Or where chaste Rhododendron beds are wide—
There doth the calm Cooperian Muse reside.

He tames the wild, far-away sky
Where shadowy branches, swaying high,
Murmur and sigh;
And soft lawns green
He bounds with joyous borderings clipped clean,
Sad cypress, or the olive's duskier sheen.

Years go round
Seasons flow,
One by one
Come and go,
One and two
Go, and then
Three and four
And round again.

Enter Spring, with the blackbird's note
And a clean white shirt, and a brand new coat;

And the lovers dote, and the poets pole
And the early sweet peas
And deciduous trees
And—(others like these)
Say, Oh, Mr. Cooper, if you please,

We are sprouting here and there
So please take care
That we don't get cold in the cold night air!

The ripe buds blossom; the big bumble bees
Buzz while the blossoms are scattered by the breeze

And the sun looks down
With a hot, red frown
On the burgeoning fruits
And the lengthening shoots
And keeps Mr. Cooper busy watering the roots.

And Summer comes on, and Summer goes by
And the hot winds pass, and the soft winds sigh,

And Autumn creeps with a tearful eye
And rustling feet, 'neath a greying sky;

And the bulbs hop out
Into the ground
And begin to sprout
Without a sound
And flower at last
In the Winter rain
Till Winter's past
And once again
The lovers dote
And the poets pole
And Spring sings in through a blackbird's throat.

It's years since I've seen
The red sun rise;
It's years since I've winked
In a Daisy's eyes;
Can a Rose be blue?
I am not quite sure;
So I'm not quite sure,
If this poem's true,
I've too much to do,
You will realise,
To worry over suns
Or Daisy's eyes;
I just surmise
That a Rose is blue,
And I let Mr. Cooper soo—
per-dise.

"THE WOMAN WHO LAUGHED AT FAERY"

Fritz Hart's opera by trunk line from Melbourne . . . Sydney
 Madrigal Society . . . Nicholas Robins . . . Tramway Band
 . . . N.B. Orchestra Concert.

FANTASTIC short opera will be relayed to 2BL from 3AR on November 28. "The Woman who Laughed at Faery" is the eleventh of a series of 13 operas by the Australian composer, Fritz Hart, who is the director of the Albert Street, Melbourne, Conservatorium. Shamus, Mary, the Fairy, and Mrs. Murphy are played by the original cast, the principal role (Mary) being taken by Miss Violet Colahan.

The motif tunes are not actual Irish folk songs, although they are intended to be accepted as such. Mary's song without words and "I Have a Pig with White Feet," both contain the lilt of the folk song. If the theme is light the opera has a whimsical beauty that is reminiscent of the "Land of Heart's Desire." But the actors must always walk delicately lest they overstep the limit of fantasy and make the opera merely comic.

The libretto is a curious tale of a roguish Irish fairy, who falls in love with the betrothed of the peasant Shamus, Mary. He invokes the old gods of Ireland in the opening scene to lend him the power to win her, but his most cunning spell is later amusingly shown to be flattery, and his compliments on her singing do as much as any charm to turn the girl from her old love to the wicked fairy-man.

It seems almost a pity that the fairy is doomed to defeat, for Shamus, the lover, is a mere clod who cuts a poor figure beside the enchanting silver-voiced thief, "the stranger with the crooked tongue," as poor Shamus calls him.

"There is no spell laughter cannot break," is the basis on which the opera rests, and the foolish heroine is saved by the hero's mother, who laughs the spells to nothing. This part is a difficult piece of acting, and is one of the most effective portions of the opera.

The poor fairy is finally defeated and dragged away to perpetual slavery, while the lovers make up their quarrel in conventional style.

The lovely lyrical scene wherein the Fairy sings the aria, "Acushla gal mo Chroird" (Bright Pulse of my Heart), is considered to rank with the work of any modern composer.

LESLIE RAPHAEL, entertainer, will be on the air from 3LO on November 27 in some "syncopated pianisms," when he will demonstrate that "jazz" has a decidedly scientific side.

THE New South Wales Tramway Band, which will broadcast from 2BL on November 25, plays almost always for charity.

It makes a visit to some country town every year for this purpose, and this year travelled to Mudgee to give recitals. It is conducted by Mr. J. M. Heron who had 12 years' experience in contest work in England before he came to Australia. He was associated there with Owen, Rimmer, and Halliwell, the three greatest band leaders in England.



J. M. Heron.

The Week's Talks

The feature talk of the week will be given by the Rev. A. P. Campbell, President of the Rotary Club, on Sunday evening from 2FC. His subject will be "Assistance for Crippled Children."



DAY SESSIONS.

FRIDAY, NOVEMBER 22.

2BL—1.15. Mrs. Meredith Atkins, "Cambridge."
 2FC—12.0. Capt. L. Roberts, "Rhodesia";
 2.7. Michael Sawtell, "Unusual Native Legends from First-hand Experience."

SATURDAY.

2BL—10.40. G. W. Cooper, "Gardening."

SUNDAY.

2BL—5.10. C. N. Baeyerzt, "Philosophic Thought from Bacon to Bergson."

MONDAY.

2BL—1.15. Miss Proctor, "Color in Relation to Health—Series 3."
 2FC—12.0. V. C. Bell, "The Public Forum"; 2.2. A. S. Cochrane, a Reading; 3.0. Department of Education.

TUESDAY.

2BL—1.15. M. H. Ellis, "Electric Appliances"; 2.30. Fred. Arlington-Burke, "Letters to the Editor: Cranks"; 3.45. Tom Gurr, "Indian Thugs and Devils."
 2FC—12.0. Illustrated music lecturette by Roy Agnew; 2.2. Museum Talk.

WEDNESDAY.

2BL—1.15. Goodie Reeve, "Aids to Personality"; 2.30. Dr. Harold Norrie, "Outstanding Personalities in Australian History—Burke and Willis"; 3.45. G. Price Congrave, "Dirk Hartog and Shark's Bay";
 2FC—12.0. G. W. Mann, "Do You Know Your Child?—Naughty Children."

THURSDAY.

2BL—1.15. Mrs. Mildred Muscolo, "Children from the Far West"; 2.30. Jean Armstrong, "Athens and its Environs"; 3.45. F. H. Raward, "Canada and her Mighty Forests."
 2FC—12.0. A. S. Cochrane, a reading; 2.2. C. N. Baeyerzt, "Spoken English"; 4.0. Francis Jackson, "The New Germany."

EVENING SESSIONS.

FRIDAY.

2BL—7.5. Claude Corbett, "Sporting"; 9.30. Francis Jackson, "Why We Laugh—Series 2."
 2FC—8.0. George Black, "In My Anecdoteage."

SUNDAY.

2FC—6.40. Rev. A. P. Campbell.

MONDAY.

2FC—9.0. Steele Rudd, "Rainbow."

TUESDAY.

2BL—9.30. V. C. Bell, "The Pessimist."

WEDNESDAY.

2BL—7.5. Graham Kent, "Bridge."
 2FC—8.20. C. N. Baeyerzt, "Dialect Stories."

THE president of the Rotary Club, the Rev. A. P. Campbell, will be the feature speaker from 2FC on Sunday, November 24. He will speak on the need for assisting crippled children, and will invite the participation of the public in this work.

There are well over 2000 crippled children in Sydney alone. Of an average of 288 examined at one clinic 150 might have been cured. The Treasury can do nothing.

The Premier and the leader of the Opposition gave their warm support to the Rotary Club's efforts when the movement to help crippled children was discussed at a meeting convened by the Civic Commissioner last month. It is also supported by the Health and Educational Departments. It is hoped that an organisation will be established on a permanent basis with adequate funds to lessen the suffering of unfortunate children.

UNDER the direction of Charles Lawrence a concert party will visit Cronulla on Saturday, November 23, and, if weather permits, a broadcast will be given in the open air. If conditions are unfavorable the entertainment will be broadcast from the ballroom of the Hotel Cecil. The artists assisting with the programme are:—Maggie Foster (violinist), Rae Foster (soubrette), John Stuart (comedian), and Horace Keats (pianist).

"THE world is going to the dogs" says the pessimist. "There's a crisis coming as sure's you're alive, and there will be a big smash in the banks shortly, I know it."

A pessimist believes the world is getting worse instead of better, and is the hardest man of all to engage in conversation. He is often a very hard man to please, and is very critical and severe in judgment. Seldom does he praise, and you are glad to see the last of him.

On the other hand, the pessimist, with his bitter philosophies, his savage criticism of the fools with whom this world is so thickly populated, may well be termed the preserving salt of the earth. The Rev. V. C. Bell will talk about the pessimist on Tuesday, November 26, from 2BL.

MORAN HILFORD, whose bass voice is familiar to listeners, will be heard from 3AR on November 26 in solos and also in connection with the Master Singers' Quartette, a vocal combination which includes Norman Bradshaw, Russell Callow, and Robert Nicholson.

NICHOLAS ROBINS will give a recital from the Arcadia Theatre, Chatswood, through 2BL on November 24. Mr. Robins has played the Arcadia Theatre's Wurlitzer for three years. He has been an organist since he was 14, and after playing the organ in several churches he decided that the Wurlitzer was the instrument which would finally displace it. Sic itur ad astra.



Nicholas Robins.

THE series, "Let's Talk about our Animals," is greatly appreciated, especially by country listeners, who fully understand the value of a well-trained intelligent animal. The talk on "Sheep Dogs" by Mr. J. R. Moore, to be given from 3LO on November 29, should be greatly enjoyed.



Dr. Harold Norrie, who will talk on "Burke and Wills" on Wednesday, November 27.

LISTENERS are keenly appreciating Dr. Harold Norrie's talks on "The Outstanding Personalities in Australian History," which he delivers every Wednesday from 2BL. His talk on Wednesday, November 27, is the tenth of the series, and deals with the tragic fate of Burke and Wills.

The expedition of Burke and Wills is the saddest and most romantic of all the Australian expeditions. Melbourne probably more vividly than any other city in the Commonwealth brings this epic story before her people.

On one of the most prominent sites of the city stands the memorial to the leaders of this ill-fated expedition, and one of the finest pictures in the Melbourne Art Gallery depicts the tree on which they carved the tragic words, "Dig three feet south." The scene depicts one of the last acts in the drama when, having exhausted their strength and resigned themselves to their fate, the papers, giving the details of the work they had done, were buried near this tree at Cooper's Creek.

YOUNGER SET TENNIS CHAMPIONSHIPS will be held on Saturday, November 23, at 9 a.m. at the Royal Prince Alfred Park courts, near Central Railway. Events:—Senior girls' double championships, 14 and over; senior boys' doubles championships, 14 and over; junior girls' doubles championships, 13 and under; junior boys' doubles championships, 13 and under.

IN future the weekly programmes specially arranged by Professor Bernard Heinze will be broadcast by 3LO on Sunday nights. Professor Heinze, in a recent talk broadcast by 3LO, said he hoped to stimulate musical interest, and to extend the movement for better musical appreciation by introducing the best "classical" music into programmes made up largely of modern music and popular numbers. Professor Heinze hopes to arrange the programme so that the latter class of music will lead up to and whet the appetite for the "classical" numbers.



Professor Heinze.

THE concert by the Sydney Madrigal Society at the Conservatorium on Wednesday, November 27, at 8 p.m., will be broadcast by 2BL.

The artists will include members of the Sydney Madrigal Society's Choir, Mr. T. H. Kelly's Trio, consisting of Miss Margaret Chalmers (pianist), Mr. Crosby Browne (clarinet), and Mr. T. H. Kelly (violin), and Sonia Chostiakoff (Russian tenor), who will be heard in three Russian numbers.

Madrigals to be sung include "Come Now, Ye Maidens" (Clemens), "Alas, What Hope of Speeding" (Wilbye); these two for four voices, "Ho, Who Comes Here?" (Morley), "Dream Pedlar" (Collin Taylor) to be sung by four female voices and chorus for three female voices.

A BRIGHT and entertaining talk will be given from 3LO when "The Story Teller" will recall a few moments with Mark Twain. There is a story of how Mark Twain, who in private life was Samuel Clemens, chose his nom de plume. On one occasion, when in New York harbor, he became interested in some men who were loading a boat with casks of sugar. As each case was lowered into the hold the clerk kept tally, calling out the numbers in turn, "Mark One," "Mark Twain," and thus, as the second case was lowered into the hold, the pen name of one of our greatest humorists was created.

JREDA TREWEEK, mezzo-soprano, will be heard from 3LO on November 29 in a selection of bright numbers.

A FINE Scottish programme has been arranged at 3LO in honor of St. Andrew's Day, and many popular radio artists will contribute to the mirth and melody. Violet McGregor, who made many successful appearances at the Queen's Hall, London, in connection with the Royal Scottish Society, will contribute violin solos; and the Balmorals, under the direction of George Walker, will be heard in Scottish song and story. Mr. Walker is a Scots comedian of much experience; he has broadcast in England, South Africa, and New Zealand, and on more than one occasion has been called upon to deputise for his famous countryman, Sir Harry Lauder. Jessie Bunting, a winsome singer of Scottish airs, will sing some of the familiar melodies.

MR. CHARLES NICIS, tenor, who will appear from 2FC on Wednesday, November



Charles Nicis.

27, is not a newcomer to the microphone. He has been broadcasting for a number of years, and also appeared from the principal stations in Riga, North Russia. Mr. Nicis is a student of the Conservatorium of Riga, where he graduated with honors.

QUAINT and very amusing are some of the letters received by Goodie Reeve, otherwise known as "Auntie Goodie." Last week a letter from a lady who travelled from the country especially to consult her on the subject of face creams, rubbed against one from a parrot—yes a parrot—who wished Auntie Goodie to broadcast his views on cages during the children's session.

Sheaves of them from the participants in Auntie Goodie's "Good Deeds" competition are always received. There are numerous epistles which greatly affect the versatile little lady to whom they are addressed, running usually like this:—

"Dear Auntie Goodie,—I have one dog and a hen called Matey, I am eight. We love you, Auntie Goodie."—Billy.

THE directors of the A.B.C., in conjunction with the Victorian Choral Association, are organising a grand radio choral contest. It is expected that about eight of the leading choirs in Victoria will compete, including the winners in championship contests at Ballarat in recent years. The competition will commence during the next few weeks, and full conditions will be announced shortly.

GEORGE COWLEY will be on the air again on November 29 from 3LO in a well-arranged classical programme. Mr. Cowley who completed his musical education in England, has given song recitals throughout Australia, and has arranged his broadcasting items with a view to assisting musical students who are preparing for their examinations. Each song is preceded by a short explanatory talk on the life of the composer and his chief works, which, increasing the knowledge of listeners, greatly adds to their appreciation of the item.

THE series of "A.I.F. Recollections" is creating considerable interest from 3AR, and many listeners are once more living the life in the trenches. Continuing these talks from 3AR on November 29, Mr. C. Ellis will tell listeners what it felt like to be "In the Poilu's Shoes," and will illustrate his talk with many graphic little word pictures. These talks are enjoyed by the many soldiers in our military hospitals.

HERBERT DUNSTAN, the champion vocalist at the recent competitions at Ballarat, is programmed to broadcast from 3LO on Saturday night, November 23.

MR. HORACE KEATS, conductor of the National Broadcasting Orchestra, has the arrangement of a studio concert for



Frank Botham.

Sunday night, November 24, from 2FC, and he is devoting the latter half of his programme to Ketelby numbers. Mr. Keats will have the assistance of an octet of instrumentalists, including Clive Amadio (clarinet), Laurence Toole (horn), H. Samols (bassoon), Dulcie Blair (violin), Muriel Lang (cellist), Louis Blits (bass), and of Miss

Le Brun Brown (soprano) and Mr. Frank Botham (tenor).

The Ketelby numbers to be introduced in the evening programme include:—"A State Procession," "A Cockney Lover," "At the Palais de Dance," "Elegy," "A Bank Holiday," "Aberfoyle," "Chal Romano," "Will You Forgive?" "By the Blue Hawaiian Waters," concluding with "In a Persian Market."

AS a result of Miss Gwen Varley speaking every Thursday evening from 2BL Studio at 6.45 o'clock for 20 minutes seven Younger Set tennis clubs have been formed. They play on Saturday mornings at Coogee, Rockdale, Strathfield, Wollstonecraft, Vaucluse, Lakemba, and Penhurst. About 150 children are receiving tuition from expert tennis coaches; the approximate fee is 1/ per week.

THE Bartleman Male Choir (conducted by Mr. A. C. Bartleman) on Friday night, November 22, will broadcast a programme, including:—"Who is Sylvia?" (Schubert), "Night" (Schubert), "The Soldier's Chorus" from "Faust" (Gounod), "The Rosary" (Nevin), "Viking Song" (Coleridge-Taylor).

BUSINESS GIRLS' NIGHT TENNIS CLUB opens Thursday, November 21, at Court 2, Moore Park. Fee, 8/6 per month, payable in advance. A coach will be in attendance.

Lindbergh's "SPIRIT OF ST. LOUIS" Built to Scale

Complete details of the famous
trans-Atlantic monoplane for model
builders

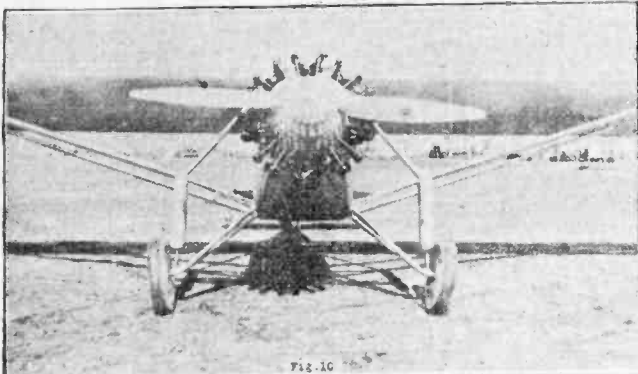


Fig. 10

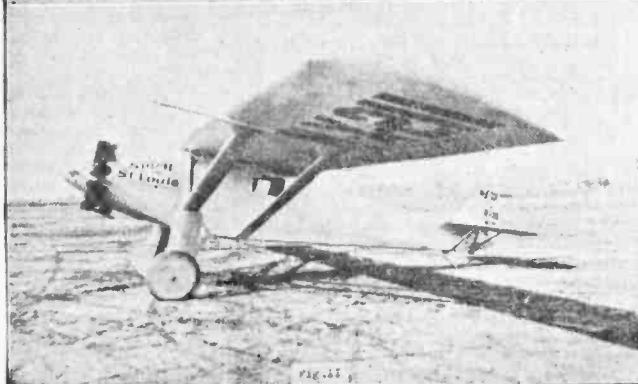


Fig. 11

Here is the "Spirit of St. Louis" from the front and side. Notice the landing gear and markings.

If you are enthusiastic about aeroplanes, no matter whether you have ever flown in an aeroplane or tried to build an aeroplane model, your imagination took you across the Atlantic when Charles A. Lindbergh flew the "Spirit of St. Louis" from New York to Paris. You took off with him; you battled fog and sleet with him; you landed at Paris 33 hours later in a corner of Le Bourget, and leaped from your cramped seat to warn the souvenir-seeking mob away.

But not so many of you, even in imagination, lived through those months when Lindbergh, a mail flyer on leave, studied navigation and watched his 'plane grow from steel tubing and fabric into the silver bird that was to be the mechanical half of "We." Even if you read of that less thrilling but deeply interesting time, even if you actually tried to build a model of the famous ship, you could not quite manage it. Detailed information about the "Spirit of St. Louis" was not available.

Now, through the courtesy of the Ryan Airlines and Donald Hall, its chief engineer,

The drawings, as you will see, have been scaled down for a 24-inch wing-span model. All dimensions are given in inches to make the task simpler for the builder. Using these drawings and with the help of the photographs the builder can construct an exact duplicate of the first New York-to-Paris 'plane.

Maybe you did not know that when Lindbergh started out to find a 'plane that would carry him across the ocean he outlined certain requirements that it must meet. He knew definitely to what kind of a ship he would be willing to trust his life. He told the manufacturers that he wanted a monoplane powered with a single Wright J-5-C engine (the improved Whirlwind); that the ship should be able to take off with plenty of power reserve when loaded with 400 gallons of gasoline; and that the pilot's seat should be located behind all of the fuel tanks for safety in case of a forced landing.

In order to meet the specifications the Ryan Airlines, when approached by Lindbergh, decided to design a new 'plane rather than try to adapt the standard Ryan M-2. That is why it may be said that there is only one

of St. Louis" than in the standard monoplane. Moreover, the ribs are set nearer together—they are 11 inches apart from centre to centre. The ailerons are farther in from the wing tips, and smaller. For the wing section the designer chose the Clark Y, and the wing tips are shaped like the upper curve of the section. (The tip in the top drawing makes this easier to understand).

Because of the increased wing span, and to ensure greater safety, the landing gear was strengthened and the two wheels were set farther apart.

All these changes were enough to make the special 'plane very different from the standard, but the most unusual change was made in the location of the pilot's seat. In the special 'plane the seat was placed in the rear part of the fuselage, rather than in the front, and behind the special gasoline tanks. In order to enable the pilot to see ahead of his ship a small periscope was installed. This periscope was placed in the left side of the fuselage, and it was so made that it could be drawn in when not needed.

If you follow the drawings you can reproduce with absolute accuracy every detail of the 'plane Lindbergh helped to design. He kept in close touch with the building of his 'plane, as you should know, from the time it was nothing but a mass of lines on a drawing board until he stepped inside to take it aloft on its first test flight.

The front view shows you the motor, the Wright Whirlwind J-5-C, and the Standard Steel propeller. Just behind the engine is a 25-gallon oil tank, which also serves as a fire



N-X-211 means "American Experimental Plane, No. 211." N.Y.P. means "New York to Paris!"

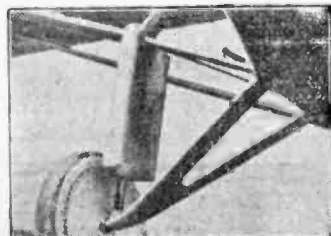


Make the nose of your model to look like this!

"Spirit of St. Louis." No other ship is quite like it.

Lindbergh's ship, for one thing, has a fuselage two feet longer than the standard Ryan. The fuselage is built of steel tubing, and is covered with fabric.

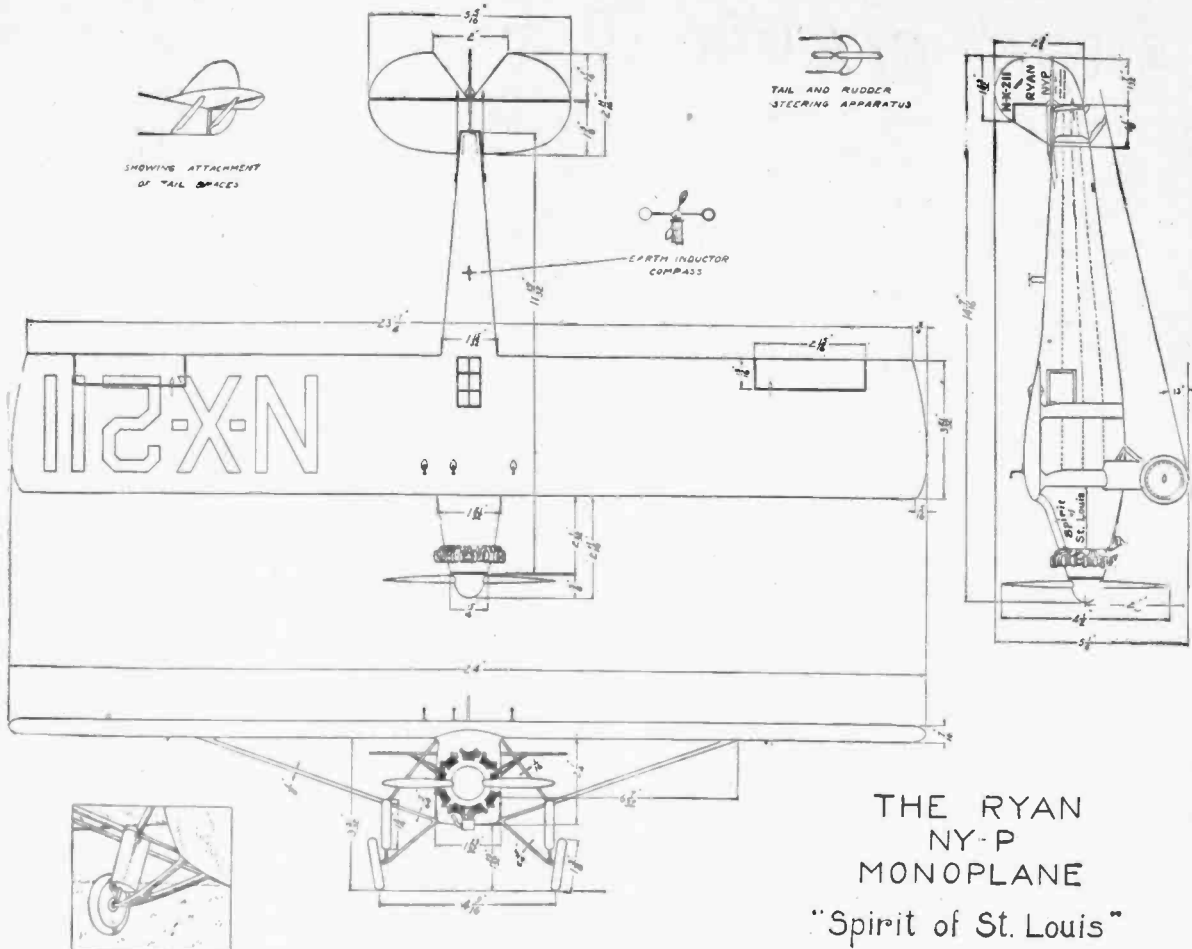
Another difference appears in the wing-span, which is 10 feet greater in the "Spirit



Streamline your struts to split the wind.

you can build an accurate scale model of the specially designed Ryan monoplane that Lindbergh flew. The model described in this article duplicates exactly in detail and proportion the original "Spirit of St. Louis."

To build your model you must follow carefully the drawings accompanying this article. Use any material you wish—it is not necessary for your model to fly to be eligible for the national contest. Carve it out of solid wood or shape cardboard into a fuselage and wings—that part of it is up to you. If you are especially skillful you may be able to make a balsa and Japanese tissue ship that will fly, but you will have to use your own ingenuity to do that. In any event, follow the drawings.



THE RYAN
NY-P
MONOPLANE
"Spirit of St. Louis"

This drawing gives you the exact proportions in inches for a 24-inch wing span model of Lindbergh's plane. Use any materials you choose—the plane doesn't have to fly.

wall between the motor and the pilot. It also shows the landing gear, struts, and wing.

Above the wing are the three caps of the gasoline tanks with the air vents sticking up from the caps. The tanks, you remember, are in the forward part of the cabin. The forward one, just behind the fire wall, holds 88 gallons, and the other 210. Three tanks built into the wings bring the total capacity to 450 gallons.

The top drawing shows the window which lets light into the cabin; the location of the tank caps on the wing; the two ailerons; the distinctive shape of the tail; the rudder; the shape of the fuselage; and the earth inductor compass windmill, which drives the generator for the compass. The windmill is directly behind the window. The sketch at the right shows the windmill in detail. At the right of the tail surfaces is another sketch showing the streamlined horns to which the control cables are attached. The sketch at the left shows the braces under the stabiliser.

Keep referring to the drawings and the photographs in order to get your landing gear and wing braces right. Be sure especially that all parts are streamlined as they are on the original ship—streamline cuts down the wind resistance.

A door on the right side admits the pilot to the cabin. A window on the left gives side visibility and some front visibility.

The markings on the ship are shown in the photographs and drawings. On the rudder is this inscription:—"N-X-211, Ryan NYP. Mfg. by Ryan Airlines, San Diego, Calif."

The "N" stands for "U.S., Registered," the "X" for "Experimental," and the "211" is the registration number issued by the U.S. Department of Commerce.

This symbol appears on the top of the right wing and the underside of the left wing, as well as on the tail. The name is painted on the nose of the ship just behind the motor.

Aluminum is the color of the entire ship, except for the markings, which are black. The photographs show clearly the distinctive polished metal effect of the nose of the plane.

If you are careful you may be able to make your scale model of the "Spirit of St. Louis" fly, although it is virtually impossible to make flying scale models of some large planes. Lindbergh's plane carries its wing far back to support the extra fuel tanks, so a very lightly-built and strongly powered ship, slightly weighted in the nose, probably can be made to take off.

However, as far as the contest is concerned, it makes no difference whether your model flies or not. Appearance is the criterion, so you may use any material you like.

JOIN THE M.A.C.A.

Aeroplane model building and flying is the best way to become air-minded. WIRELESS WEEKLY has arranged with the Model Aeroplane Club of Australia to enrol boys without charge. Simply fill in the coupon below and send it to the M.A.C.A., c/o WIRELESS WEEKLY, Phillip Street, Sydney. Send the coupon now. If desired the M.A.C.A. Badge will be forwarded for 1/-, post free.

MODEL AEROPLANE CLUB OF AUSTRALIA,
c/o National Broadcasting Company,
Market Street, Sydney.

I wish to enrol in the M.A.C.A., sponsored by WIRELESS WEEKLY.

(Your name printed clearly.)

Age Address

Town State

Please forward Club Badge, for which I enclose Postal Note for 1/-.
(Cross out if not required.)

SHORT-WAVE NOTES

By
R. N. SHAW

SINCE my last notes were written, the short-wave fan has suffered some comparative "barren" periods. Notwithstanding this, it can be said that not a single day or night now passes that reception of some overseas station cannot be obtained. Changes are, however, taking place in what are known as "favorable" reception periods. Until recently stations in certain parts of the world could be logged at excellent strength at almost any hour during the afternoon, but at the present some of the finest reception is being obtained during the very early morning hours. But what keen short-wave fan begrudges an hour or two during the wee sma' hours when a newcomer can be logged on the speaker?

KGO GOING.

The time has apparently come when, for a season, we must say farewell to our old friend, KGO, whose weekly programmes, first on Wednesday afternoon, and latterly on Sunday afternoon, had become a feature of overseas reception. KGO has become very weak, and is now not worth listening to. Last Sunday (November 10) it was a work of art to log his carrier, and not until between 6 and 7 p.m. was it possible to even read his signals. On the previous Friday there was no trace of this station.

The same remarks apply to the G.E. W2XAF and W2XAD, daylight reception of which is now practically nil. The searcher of the air is, however, likely at any hour in the early morning to pick up one of the company's several stations. One of these was on the air for several hours to-day (November 11). I first heard him shortly after 5 a.m., good strength being maintained until about 6.30. Reception of his musical programme was good, but speech was hazy. There was very considerable "surging," making it difficult to say which of the stations was operating. There was, however, no doubting the "Noo Yark" accent.

RADIO MANILA.

The most reliable overseas station for the fan who does not wish to lose any sleep is Radio Manila, whose programmes are usually very entertaining and of good quality. Radio Manila is still operating on his lower wave-length, although occasionally going up to 42.8 before midnight. Some special broadcasts were heard recently, due to the visit of some of the U.S.A. cruisers from Tahiti base. The National University Band was heard in appropriate numbers. The studio orchestra's programme included the "Star-spangled Banner" and "Sands of Normandy." On November 8 the Hawaiian Instrumentalists gave a delightful rendering of "Annie Laurie." At 9 p.m. full speaker strength was reached, the chimes of 7 o'clock at Manila being quite loud and clear. To the new listener endeavoring to log this station I would say: Tune in a few degrees above 5SW between 6.30 and 7.30 p.m., and 8 and 10 p.m., when strength is good. Remember the station frequently closes down for varying periods between 7.30 and 8.

PICTURE TRANSMISSIONS.

The London tests can still be heard around about 6 p.m. I wonder how many fans heard the transmission of pictures and wondered what all the fuss was about? The actual sound is hard to describe, unless it could be compared with the time signals sometimes given from certain observatories. During the tests one afternoon GBX asked what was causing a whistle he had just heard. 2ME casually replied that it was the 5 o'clock knock-off whistle at Hyde. 2ME is not received strongly here, but tests from Ballan (apparently the beam centre) have been heard at full speaker strength.

In the early mornings I have again heard the foreign station previously reported on about 30 metres, but no English announcements were made. He was at speaker strength, with good musical programme.

KDKA AND RA97.

The special anniversary transmission from KDKA was received at excellent strength. It was rather a novelty to hear 2ME transmitting a message of congratulation, which was put on the air by KDKA and heard equally well back in Australia.

A two-way conversation has been heard several times on about 33 metres. The con-

versation being in English from both ends. One of the parties was calling London, but there was nothing to indicate the origin of the call.

Reception of RA97 is suffering from static. A strong harmonic of 2KY also causes considerable interference at times with the reception of RA97.

Interference is also caused in the reception of Radio Manila by a powerful code station, not unlike VIS. At times it is well-nigh impossible to separate the two stations.

5SW can still be heard rather weakly between 6 and 7.30 a.m., and in the evening. The best time at night is around 11 o'clock.

LEARNING THE MORSE CODE

Dear Sir,—Re "Learning the Morse Code" ("Wireless Weekly," 18/10/29). I regret to inform "H.R.C.," that his method is not original. The first time I came across this method was about twelve years ago. It was in a massive handbook on telegraphy, but I cannot recall the author's name. I communicated the list of words to "Radio" about two years ago, and it brought forth some criticism from friend VK4MM, to which I did not reply at the time. He referred to it as "my" method—I would like to impress the fact that it is not my method—I merely passed it on for the benefit of any to whom it may prove useful.

The remarks of "A.M.S." are similar in character to those of VK4MM. They both seem to be scared that the key words will cause hesitation. They certainly will for a time—but I think that plenty of practice, which is a highly important part of any "method," will soon relegate them to the sub-conscious mind. It appears to me that they are a great help to a budding "op." who gets stuck and loses heart. I do know that it has proved of assistance to a number of learners, and if there any who found it an obstruction I would be pleased to see them air their views in your columns. To save you searching your back numbers I append the original list of words. E, I, S, H, T, M, and O are omitted for obvious reasons. "Xcellent Beer" seems to have more appeal than "Xanthialike," but I admit I like "Daintily" better than "Domine," so it is up to the learners to choose the words which suit them best.

This method is purely a physiological "association of ideas," and there seems to be no reason why it should be less applicable to the learning of Morse than to the thousand and one other subjects to which it is successfully applied. For instance any ingenious learner can make up a similar series of "catch-words" to memorise the "Q" signals, as, e.g., QRP—"Reduce Power."—Yours, etc.,

"T.W." (VK2TW)

- ALARM.
- BEAUTIFUL.
- CIRCUMSTANTIAL
- DOMINIE.
- E.
- FILIBUSTER.
- GLASS-GRINDER
- H.
- I.
- JAPAN VARNISH.
- KISS ME QUICK.
- LEGITIMATE.
- M.
- NAVY.
- O.
- PRONOUNCE PLAINLY.
- QUICK QUENCH THE FIRE
- RECEIVER.

- S.
- T.
- UNATTACHED.
- VANITY FAIR.
- WE LIKE PLAY.
- XCELLENT BEER.
- YOU ALARM ALL
- ZINC BATTERY

Another Table

Dear Sir,—Here is the Phillip's code for learning the Morse alphabet. You will note that it is all geographical, as, of course, it should be.

Say each of the geographical names here given very slowly, dividing into correct syllables. When a syllable consists of one or two letters memorise it as representing the Morse sign dit; when of three or more letters, as representing the Morse sign dah. Visualise the abbreviations, P.I. (Philippine Islands), A/sia (Australasia), and S.A. (South Africa), and apply the Morse sign to the abbreviation according to its length.

As the letter X when commencing a word in English is given the sound of Z, it would be confusing to so use it in a code of this kind. The difficulty has been partially overcome by spelling the letter, taking a slight liberty with the name Exeter, and then using it in connection with the river of that name, viz., the Exe et er Exe.

CODE—

- A den
- Bech u an a
- Cal I forn ia
- Don go la
- (A town in France) Eu
- Fu ji yam a
- Ger man y
- Hi ro sa ki
- In ca
- (English and J pan nip pon
- native name).
- Kill a loo
- Lu Zon P. I.
- Mos cow
- Nan cy
- Oak hamp ton
- Pe kin Chi na
- Queens land A/sia
- Ro mill y
- Sa ha ra
- Thames
- Ul va Isle
- Ve su v ius
- Wa ter loo
- X. Exe et er Exe
- Yos em ite Falls
- (South Africa). Zwart Berg S.A.

The code should be printed in syllables as set out.—Yours, etc.,

SYDNEY PHILLIPS.

Mayfield.

Wireless Weekly

Incorporating "Radio in Australia and New Zealand."

FRIDAY, NOVEMBER 22, 1929.

WHAT WILL CO-ORDINATION MEAN?

THE news that the Australian Broadcasting Company has appointed a Commonwealth superintendent as a preliminary to the complete co-ordination of its services when 4QG and 5CL are absorbed in a month or two, is welcome news to listeners.

It would seem to indicate that an effort is to be made to widen the scope of the individual stations to include the best features of the others. This was the original plan of the original Government which declared in favor of the A.B.C.

One of the difficulties under the plan of reduced payments to the Broadcasting Company has been the provision of longer hours on less money. The longer time on the air the more expense, or the less concentrated the good items. Without questioning the necessity for being longer on the air than previously, this had to result in either a general all-round reduction in the quality of the programmes, or a reduction in the company's probable profits. The company claims that it has been in the profits.

However, the exchange of complete programmes between the various stations by means of relays should remedy to some effect either the company's profits or the programmes (have it as you will). The money spent by, say, 2FC, on an afternoon programme could also serve Brisbane, and the expense saved on the 4QG items would be spent on better evening programmes. That is, of course, if the G.P.O. authorities make the cost of the relays a reasonable one.

Another aspect of the possibilities of relays is the wider variety of items and artists which may be provided. Only too well the majority of listeners in New South Wales, anyway, know the qualities—excellent or otherwise—of the artists who broadcast through 2FC and 2BL. How refreshing, perhaps, to have new voices from Adelaide or Brisbane.

But the chief danger of this co-ordinated service lies in its chief advantages. The stations in New South Wales and Victoria have lost much of their attractive individuality. Co-ordination is likely to destroy this altogether.

If it means that stations are to re-broadcast each other's programmes at regular intervals, then each must as-

sume the personality of the other at certain periods, and to an inter-State listener tuning in 3LO will be much the same as tuning in any other station; little that is fresh will be offered.

The remedy, of course, lies in the appointment of separate programme managers—preferably men untrained under present station managements—who will infuse some clear-cut personality into what remains of the station programmes for them to arrange. To do it successfully, they would have to be minor dictators given a free hand in all matters of presentation and procedure.

How far this would be possible would depend on the ability and purpose of a Commonwealth superintendent.

SCOTT ALEXANDER says he is cosmopolitan, for he has been everywhere, lived in practically every country of the world, and has met nearly everyone worth meeting. He is a character actor of note, and has played opposite such artists as Mrs. Brown Potter and Kyrle Bellew; whilst he has also been associated with the late Sir Henry Irving. Mr. Alexander is very interested in radio plays, and is producing one, entitled "Clinking Glasses," by Codrington Ball, through 2BL on November 22.

BALANCED PROGRAMMES New Scheme of A.B.C.

IN their efforts to please the million radio listeners in Australia, the Australian Broadcasting Company is developing with considerable success the scheme for balanced programmes and co-ordinated services. No longer are the programmes broadcast from 3LO and 3AP as high-class concerts but as high-class radio productions, including:—

- (a) Special radio musical comedies.
- (b) Theme programmes with effects.
- (c) Radio revues, in which the items are "hooked-up," so to speak, with specially written announcements and patter.
- (d) "Melange" programmes or radio "shows" of comedy, dance music, classical items, and whatnot, carefully selected and balanced, and presented with appropriate effects.

The old order of things has passed, and the Australian Broadcasting Company was quick to realise it and to adopt new methods of production.

The daily mail received at 3LO is the best possible barometer for ascertaining the likes and dislikes of listeners, and for detecting "storm" centres. During the last few weeks the general tone of the letters indicates that the new programmes are giving almost universal satisfaction.

The company is extending this balanced programme scheme, and it is expected that there will soon be an interstate exchange of programme themes between the various stations, especially when the company takes over 4QG and 5CL, in January next.

SECRETS OF THE RADIO INDUSTRY—5



Measuring wavelengths according to international agreement at Geneva.

*These Columns Proper
Place for Open
Discussion*

Open Forum

Dear Sir.—Would Mr. Frank Downes ("W.W.," September 13) be more explicit. He informs us that it is of no use complaining in "Wireless Weekly" or to announcers re unsatisfactory programmes. If, as he says, Mr. Doyle desires reasonable criticism, where do we lodge same? I think "Wireless Weekly" is the proper place, as one's views are then open to public discussion.

2FC transmission: Mr. J. L. Long, Moss Vale ("W.W.," September 20), complaining, and Mr. A. J. Baker, Brisbane ("W.W.," October 11) commending. There have been previous letters re same matter. It seems to be a question of locality. Various listeners here inform me that they receive 2BL better than 2FC. I can hardly raise 2BL until 7 p.m. 2FC comes clear and strong from 7 a.m. to 7 p.m. At 7 p.m. 2BL is good, while 2FC becomes distorted. 3LO and 3AR are the best stations, they are loud and clear. My set is a five valve Stewart Warner with an A.B.C. eliminator.

Seeing that various localities favor the respective stations 2FC and 2BL, would it be possible for these stations to change over each week, their times of starting and finishing. 2BL to start at 7 a.m. and 2FC and 8.15, also a change-over on Sundays. This would enable a large number of listeners to hear the gramophone recital each morning, and on Sundays for one week, and those localities that hear 2BL best would have a change to the programme usually given by 2FC. If one station has a continuous feature, it should be finished by that station on account of difference of reception.

I wish to congratulate the A.B.C. on the engagement of Prof. G. H. Cowling, M.A., Dr. Loftus Hills, and others of this type. Apart from the interesting subjects they offer, their treatment on the King's English is a lesson to other public speakers, and of great educative value to us all, serving to counteract the corruption and the nasal use of words adopted by various public entertainers. We are like parrots, we imitate the pronunciation of words given by those people who, by virtue of their positions, we regard as authorities. In this regard, announcers have become national teachers on the correct way of speaking and pronunciation.

Instead of relays on Sunday nights, I am sure a request night of gramophone records would be more appreciated, provided there is a good variety.

How is it that correspondents praise the B class stations, whose main entertainment comprise records? It must be because of the choice in selection by those stations.

The article by Capt. A. C. C. Stevens ("W.W.," October 18) puts the case for records in an able manner. I make a point of asking the opinion of everyone I meet what they think of records, and I have not found anyone to condemn them; but they do declare that some of the items by very indifferent local artists forces them off the air until something decent is due.

Yours, etc.,

"RADIO."

Cessnock.

The Safety Valve

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 of expression—your safety valve. The editor assumes no responsibility for statements made by readers and published on this page. Anonymous letters are not considered.

One Listener's Opinion

Dear Sir.—For some time past I have been making exhaustive tests with the object of finding out which broadcasting station operating in New South Wales is received the best in the metropolitan areas, from the point of view of modulation.

My receiver is a five valve Browning-Drake with a push-pull power amplifier, and is capable of an undistorted output of approximately two watts. I say this because I want my readers to know that it gives volume in quantity without a trace of distortion.

Of the six stations operating on the broadcast band, 2GB is received the best. This station has a modulation which is 100 per cent. perfect. Apparently the engineers understand how to handle the crystal control transmitter, so a minimum of a.c. hum is present. The station also gives a perfect aerial output from about 50 to 5000 cycles per second. The programmes, which are mostly gramophone recordings, are very fine indeed, and the pick-up used at the station seems to have a wide frequency response.

Station 2UW comes next, as far as modulation is concerned, but in this district, their wavelength has a tendency to "creep," or is it that the cooling system on the valves at the station is inefficient? The 50-cycle notes are exceptionally good, and the station seems to have a cut off of about 3000 cycles.

2FC and 2BL are next on the list. I haven't been able to compare their modulation very minutely, but the frequency characteristics seemingly do not vary. I am inclined to think that 2FC's bass notes are rather over emphasised, both stations having a cut-off somewhere round about 7000 cycles. If anything, 2BL has a broader note than 2FC, but 2FC is received the best.

Radio 2UE has a downward cut-off at 8000 cycles, and reaches the maximum of 8000 cycles. This station is altogether too "tinny," the modulation being anything but deep and round, although the gramophone music comes through fairly well.

The last on the list is 2KY. Everybody knows 2KY, their modulation can be described in the one word "awful," and this statement I have heard before from a technician who knows broadcasting, and who thoroughly understands the principles of modulation. It is most unfortunate that this state of affairs exists with this station, but there you are, what can you do? I think the whole trouble lies in the speech amplifier of 2KY; at any rate, the transmitter itself is tuned far too broadly.

And now you will ask, how am I able to compare each station's modulation in cycles? The answer lies in the fact that I have a perfectly good radio receiver and a dynamic speaker, capable of reproducing proportionately every note within the frequency of 30 to 6000 cycles per second. That means that the speaker will only reproduce exactly what is put into it, and with the high output which is available, no note is missed. A push-pull amplifier gives a tone far su-

perior to any other method of audio amplification, and since super transformers are used throughout, my amplifier can be classed as first grade.

Yours, etc.,

MICROWATT.

Alexandria.

Best Value for Money

Dear Sir.—These people who are continually howling that they will not renew their licenses if they don't get better programmes make one sick. The A.B.C. would be unnatural if they could please everybody, as it is not possible.

Re the remarks about 2FC, surely if they do not like that station why don't they turn the dial to some other station, as there are quite a number of others; some of these growlers want to live in the Cessnock district, where night reception of Sydney stations is a nightmare (daytime reception being excellent, by the way).

Considering that the annual fee is only 24/- I think it is the cheapest 12 months' entertainment one can get anywhere, and if one night's programme does not please you, forget about it, and look forward to the next; someone else has enjoyed the items you did not.

Yours, etc.,

"CARBEA."

Cessnock.

Under 9 and Over 90

Dear Sir.—I am writing these few lines through your most valuable paper to see if there is a broadcasting station in the Commonwealth that can better the reply to a letter which I wrote to 2LO asking them to broadcast birthday greetings to my father in London. Herewith is said reply:—

September 24, 1929.

Dear Sir,—

Thanks for your interesting letter of August 13, and the suggestion, which has been noted.

We are very sorry, indeed, that we cannot comply with your request to broadcast greetings to your father, as we only include the names of children who are members of our radio circle, or adults of 90 years or over.—Yours faithfully,

THE BRITISH BROADCASTING CORPORATION.

This was posted on September 24, and my father's birthday was October 29; and I received the letter on Friday night, November 1, after having written home by the last mail to my father hoping that he had heard the surprise on his birthday that I had given him. In your opinion, do you think it was just, especially as it came from his son, who has not seen him for seven years, and is over 12,000 miles from his home?

I think I am safe in saying there is not a station in Sydney, either A or B class, that would do such an objectionable thing, especially should it come from relatives overseas.—Yours, etc.,

Glebe.

W. H. SHELTON.

THE WIRELESS QUESTION AND ITS ANSWER

Which Set Should I Buy or Build?

You Don't Know Because There are so Many From Which to Choose

WELL! LET US ANALYSE THE QUESTION

- | | | |
|----------|--|------------|
| 1 | Do you want a set which makes a noise like a broken-down gramophone? | NO |
| 2 | Do you want a set that will cost a small fortune to operate? | NO |
| 3 | Do you want a set which will be always breaking down and cost pounds for repairs? (Most cheap sets do this.) | NO |
| 4 | Do you want a set which brings in two or more stations at the same time to spoil your entertainment? | NO |
| 5 | Do you want a set which confines you to local stations, when for the same or less money you can buy or build a set that will bring in Interstate stations? | NO |
| 6 | Do you want a set which will make a big hole in your banking account? | NO |
| 7 | Do you wish to be sure, under guarantee, of avoiding all the above disadvantages? | YES |

Then the Set You Require is Our Guaranteed
RENOWN THREE

(with 5-Valve Performance)

This Truly Wonderful Set was Specially Designed by us to Guarantee all the Most Critical Could Desire.

BATTERY OPERATED

KIT OF PARTS,

£6/13/2

ACCESSORIES FROM £5/9/5.

ALL ELECTRIC MODEL

KIT OF PARTS COMPLETE,

£20/5/-

INCLUDING PHILIPS POWER PACK.

"Yours for Lower Prices and Service that Satisfies" —

THE ECONOMIC RADIO STORES

FREE ENQUIRY COUPON— 25 ROYAL ARCADE, SYDNEY

Please mail more details re item No in your Advt. 22/11/29.

NAME

ADDRESS

126A PITT STREET,
SYDNEY
(near King St.).
PHONE. M6139.

13 UNION STREET
NEWCASTLE
(off Hunter St. West.
Phone. NEW. 1622.

MAIL ORDER DEPT.,
492 GEORGE ST.,
SYDNEY.

CORNER CHURCH &
MACQUARIE STS.,
PARRAMATTA
PHONE. UW 9601.

25 ROYAL ARCADE,
SYDNEY
(near Palace Theatre)
PHONE. M6138.

The MODERN 2 for A.C. OPERATION

By KEN WARNER

As a general rule, the characteristics of the indirectly heated or "a.c." type valves are more desirable than those of the battery types. This means that an indirectly heated type often would give better results in even a battery set if the heater were run from the accumulator. Of course, the filament consumption would be high, but this could be tolerated in some cases. When we change over the "Modern 2" for a.c. operation we are able to take advantage of the better characteristics of the indirectly heated screen-grid valve and we are also able to use a power valve which is big enough to provide real reproduction—a power valve which would take far too much plate current to be operated from batteries.

In converting my own receiver for a.c. operation I did considerable work comparing

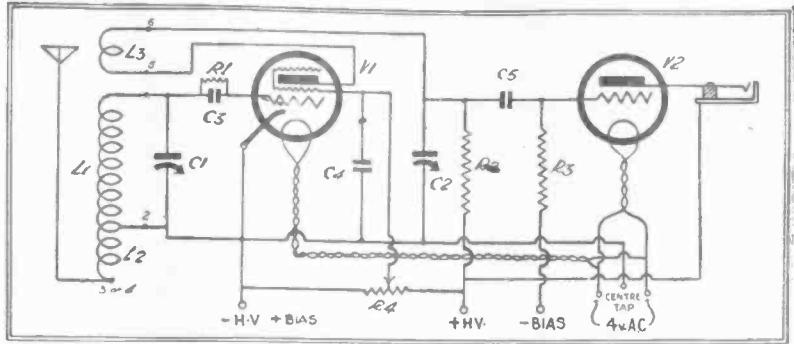


Fig. 1.

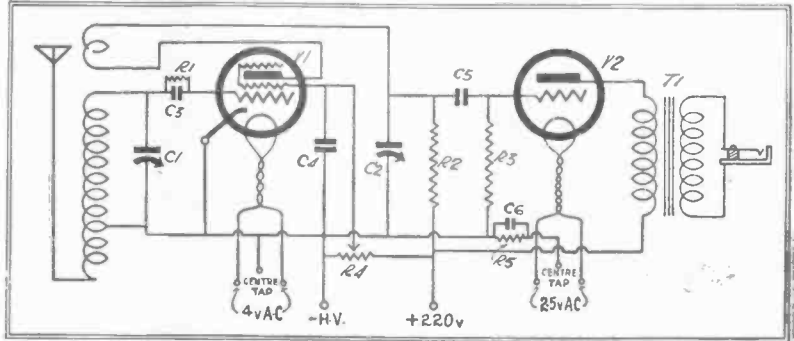


Fig. 2.

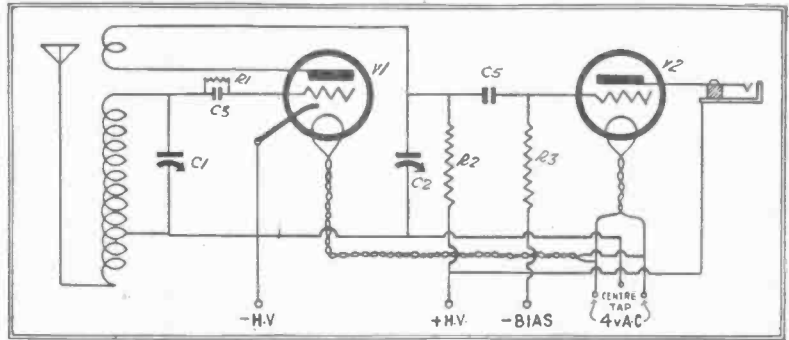


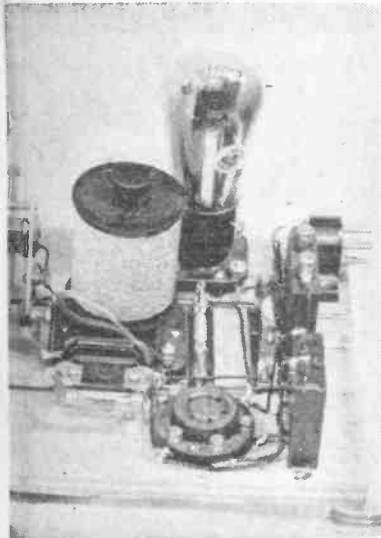
Fig. 3.

AM5 and base remain the same. Other similar items are the tuning condenser, regeneration condenser, the resistances R2 and R3 and the the condenser C5. The differences in the circuit can be seen by comparing it with that printed last week.

The filament connections between the two valves and the battery plug are carried out with twisted flex. These leads must be kept well away from all the other wiring of the set and it is not a bad plan to run them under the baseboard, all other wires being above. The wiring to R4 is quite simple. This resistor permits a variation of the screen-grid voltage from zero to maximum and with it the desirable voltage for greatest sensitivity may be found readily. The adjustment usually will be about one quarter turn from the negative end of the resistor.

The power supply to my own receiver was a "Wallace Type 280" eliminator. The four-volt filament winding fed to the two valves, the maximum high voltage lead was connected at the point indicated and bias was provided through R3 as shown in the circuit. The valves used were an E442 for the detector and an Osram P425 for the power valve. A B403 could be used as the power valve if desired. The bias required in both cases is at least 30 volts.

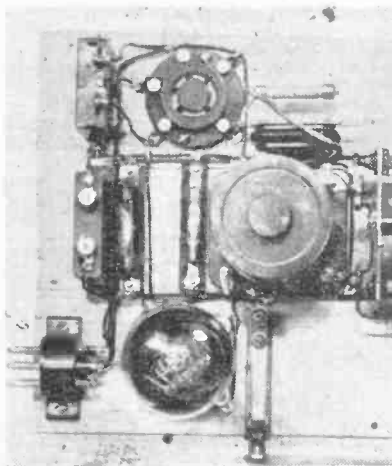
The circuit of figure 2 shows how provision may be made for the use of a UX-245 power valve in cases where the eliminator has a 2.5 volt filament winding and in which the total high voltage obtainable is of the order of 220 volts. In this arrangement the power valve



different types of valves and different combinations of them and in the circuits I show three possible arrangements. I will discuss them in turn.

The circuit given in figure 1 shows one satisfactory way of converting the set. An indirectly heated screen-grid valve is used as the detector and a 4-volt power valve in the second socket. Both are supplied from the same filament winding, the cathode of the first valve being connected to the filament winding centre-tap.

The construction of the set is very similar to the d.c. model, and for this reason intending builders of the receiver should make a study of last week's article. The chief differences are in the use of a UY type valve socket for the detector and in the provision of a 50,000 ohm potentiometer in place of the two plate midget at the left side of the panel. The midget is no use any more since short-wave reception will not be satisfactory with a.c. supply. The Lewcos broadcast coil unit



The Parts Required

Panel of aluminium or bakelite, 9in. x 6 1/2in.
Baseboard, 9in. x 8in.
V1—One Philips E432 screen-grid valve, or E433 (see circuits).
V2—One Osram P425, Philips B108 or UX 245 Power valve (see circuits).
L1, L2, L3—One AMG Lewens coil and base.
One FX and one UY type socket, Pilot.
C1—One Advance Centralign variable condenser, .0005.
C2—One Advance Midzet, 11 plates.
C3—One Sangamo .0016 mfd. fixed condenser.
C4—One T.C.C. .04 mfd. fixed condenser.
C5—One T.C.C. .5 mfd. fixed condenser.
C6—One T.C.C. 1 mfd. fixed condenser (see circuits).
R2—One carborundum .25 megohm fixed resistance.
R1, R3—Two 2 megohm gridleaks.
R4—One Pilot or Royalty 50,000 ohm potentiometer.
*Phone Jack, terminals, or battery plug and Vernier dial.
Wallace type 250 ohm eliminator or other suitable type (see circuits).

gets its bias from the resistor R5 by-passed by the one mfd. condenser, C6. A resistance of 1000 ohms should be used for R5 and it should be wire wound. Aside from this bias arrangement and the connection of the two filament windings, the circuit is the same as figure 1. An output transformer is shown in this case just to indicate the way in which it would be connected if it were not already provided in the speaker unit. In our own receiver we used a Magnavox which has the output transformer built into it.

The arrangement shown in figure 3 has an ordinary type of detector valve in place of the screen-grid. Some enthusiasts may have such a valve at their disposal and may wish to use it. With this valve the set will not be as sensitive as with the screen-grid valve; but in the suburban areas, with a good aerial, it should enable satisfactory loud speaker reception of the local stations to be had. In this case the receiver becomes a very simple affair indeed. It is similar to that of figure 1 with the difference that C4 and R4 are eliminated. All other components remain the same and the set is operated in an exactly similar manner.

It must be remembered that this set is intended solely as a receiver for near-by stations. It is very improbable that this set would give satisfactory loud speaker reception at locations beyond the suburban radius, and in any case a fairly large aerial of the type described last week is essential.

Mona Deutcher, Contralto

MISS MONA DEUTCHER, who played in "Hugh, the Drover," recently produced by the Conservatorium, has been appearing constantly on the concert platform during the past 12 months, touring the New England



Mona Deutcher.

district and several other towns with the annual Conservatorium concert party. She has won many scholarships, securing the much coveted M'Ghir Brothers' Scholarship early this year, and is a pupil of Madame Goossens Viceroy. She was chosen to take the leading part in the firm's orchestral and vocal choir concert at the Conservatorium on Wednesday, November 20.

Bedtime Stories—Tuesday Night

SOMETHING novel in the way of entertaining the children is being introduced each Tuesday night during Aunt Willa's session. Various trips have been taken, to Fairyland, Doll Town, to the Bush, etc. Attractions include "A Visit to the Old Woman in the Shoe, to see the Nursery Rhyme Folk"; one to "The Foot of the Rainbow"; and many happy nights are assured, as Aunt Willa has accumulated suitable bedtime songs for over

New Apparatus Tested & Approved



The Gigantaforte

WITH the perfection of amplifiers working direct from the electric mains and the introduction of dynamic speakers, wireless engineers are now able to design amplifying apparatus, reproducing music and speech with all its original fidelity at almost unlimited volume. Amalgamated Wireless now introduces the "Gigantaforte." The "Gigantaforte" incorporates the results of modern research in sound amplifying apparatus, and many years' experience in the manufacture of A.C. apparatus has made it possible to design the whole equipment so that it will operate perfectly from an electric power point. Acoustic requirements have also been carefully considered in the amplifier to ensure that the equipment will handle the largest output of energy without distortion.

The Gigantaforte is assembled in a handsome rolled top desk of polish walnut, with record compartments ranged down either side. The two turntables, together with the fader volume control and needle receptacles, are assembled on the top of the desk.

Valves of the most modern type, providing long service as well as efficient operation, are



standard equipment. The transformers, condensers, and other components have been designed to give trouble-free service, possessing throughout a wide safety margin ensuring against breakdown.

Designed for all-electric operation the "Gigantaforte" equipment works direct from the electric light point without the use of any batteries. The turntables are revolved by small electric induction motors, which will operate for many years without the slightest attention.

The loudspeakers are of the improved dynamic type, mounted in artistic cabinets of walnut veneer, with shaded duco finish. They are designed in strict accordance with acoustic principles, and reproduce the entire musical scale with perfect clarity and distinctness.

A.W.A. recommend the "Gigantaforte" for dance halls, hotels, accommodation houses, passenger ships, open-air parties, and private homes.

four years, and is still collecting music of this kind. With great success, the musical cantata, "Sing a Song of Sixpence" was rendered recently, and Hector, the wireless bird, has whispered that Aunt Willa and her helpers are working on several other juvenile cantatas.

A new idea is being tried out during this session, and that is the dramatisation of many of the stories to be told. These Aunt Willa arranges herself, in an endeavor to make the stories, which are a necessity, more interesting. Cousin Gwen and Aunt Willa are also working with the "Hello Man" on Saturday evening.

Double-Screen-Grid Astor Set

MESSRS. AMPLION announce the introduction of a new double-screen-grid Astor receiver.

The principal features of the new model are:—

Four tuned stages, producing sensitivity and knife-edge sharpness in cutting out unwanted stations. Individually shielded components, eliminating interference and ensuring simple and positive control. One control, enabling interstate stations to be tuned in by a child. Two stages of screen grid are employed in second and third high frequency stages. They are followed by a special power detector, imparting clarity and vividness to the reproduction. Reserve power is afforded by this specially designed Astor audio unit of two stages power amplification. A special switch is provided to enable the listener to reproduce ordinary phonograph records electrically. Built with mathematical accuracy from only matched components, and designed to operate on extremely low battery consumption valves, the total consumption of the Astor double-screen-grid-radio is only 4 of an amp.

Amplion (A'sia) Ltd. claims that with this receiver only a 20ft. loud speaker cord is necessary for interstate right reception, and that consequently static is reduced to a minimum.

Location and Wave-length of Australian and New Zealand Broadcasting Stations

	Metres.	Waves
New South Wales.		
2FC.—Aust. Broadcasting Co. Ltd., Market St., Sydney, 0700-2230	451	5000
2BL.—Aust. Broadcasting Co. Ltd., Market St., Sydney, 0800-2330	353	8000
2GB.—Theosophical Broadcasting Station, 29 Elgin St., Sydney, 1000-2200	318	5000
2KY.—Trades and Labor Council, Goulburn St., Sydney, 990-2200	280	1500
2UW.—Radio Broadcasting Ltd., Pallings Building, Ash St., Sydney, 1230-2230	267	400
2UR.—2UE Broadcasting, 619 George St., Sydney, 0730-2330	293	250
Victoria.		
3LO.—Aust. Broadcasting Co. [20A] Russell St., Melbourne, 0715-2340	371	5000
3AR.—Aust. Broadcasting Co. [20A] Russell St., Melbourne, 1000-2200	454	5000
3HZ.—O. J. Nilson and Co., 45 Bourke St., Melbourne	319	500
3DB.—Broadcasting Station, Capitol House, Swanston St., Melbourne	255	500
Queensland.		
1QG.—Queensland Government Radio Service, Brisbane, 0800-2200	385	5000
1GR.—Gold Radio Service, Ruthven St., Toowoomba	294	100
South Australia.		
1CL.—Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide, 1100-2310	409	6000
1DN.—SDN Propriety, Ltd., 2-4 Montpelier St., Parkside	313	500
1KA.—National Musical Federation, Ltd., 81 Flinders St., Adelaide	280	9500
West Australia.		
1WF.—Aust. Broadcasting Co., Perth, 1230-2230	1250	5000
Tasmania.		
1ZL.—Tasmanian Broadcasters Pty., 95 Elizabeth St., Hobart, 1130-2204	516	9000
NEW ZEALAND.		
1VA.—Radio Broadcasting Co. of New Zealand, 419 Queen St., Auckland, 1500-2203 (silent day Monday)	333	300
2VA.—Radio Broadcasting Co. of New Zealand, Wellington, 1800-2200 (silent day, Wednesday)	420	5000
3VA.—Radio Broadcasting Co. of New Zealand, Christchurch, 1800-2103 (silent day, Tuesday)	306	500
4VA.—Radio Broadcasting Co. of New Zealand, Dunedin, 1700-2200 (silent days, Monday and Thursday)	463	750

COMPARING DX NOTES

Compare Notes

Dear Sir,—I note several correspondents' remarks re RA97; in my opinion the call-sign is pronounced "Er, Ah, vivinostishin," and this sign is frequently followed by "Radio Khabarousk," or something very similar. That confuses me a bit, as I thought the Khabarousk station was RFN I have heard RA97 on 35 metres, but, as far as I can tell, this is a harmonic of the 70 metre fundamental.

I note with interest the schedule for UOR2, Vienna. I have frequently heard a station on about 49.4 (a little above KZRM), but it continues often until after midnight, so I suppose it is not UOR2. The language sounds like Dutch, and Socrabaja is frequently mentioned. I would be glad to compare notes with any other reader who could help me to identify this station.

On Saturday, June 15, on about 48 or 49 metres, I heard a station, 3XC, broadcasting a programme. The announcer mentioned that it was a British Dominion station, but did not say which Dominion. Closed down at 4.30 p.m. I would like to know something about him, and also about the broadcaster (not a local harmonic), which appeared on about 42-43 metres, a couple of weeks ago, right among the amateurs. This station was heard well during the evening.

I noticed "Short-wave Crank's" log. Here is mine:—

N.S.W.: 2LD, 2AR, 2LJ, 2JC, 2KU, 2OG, 2YB, 2TW, 2HM, 2AJ, 2GQ, 2HC, 2ME, 2IJ, 2KT, 2ZL, 2KL, 2SK, 2EK, 2RB, 2JV, 2HL, 2GR, 2WJ, 2DY, 2WC, 2JZ, 2UW, 2ZN, 2FA.

Victoria: 3WS, 3LO, 3BM, 3BQ, 3UX, 3RG, 3LX, 3PH, 3EM, 3JR, 3WX, 3CX, 3JK, 3OR, 3AM, 3CM, 3UZ.

Queensland: 4NW, 4KO, 4JR, 4BH.

South Australia: 5EM, 5PM, 5AW.

Tasmania: 7DX, 7LJ.

West Australia: 6AG, 6BN.

U.S.A.: W2XAD, 2XAF, 26XN, 8XK, KES.

Holland: PHI, PCJ, and one unidentified

"Phillips" station, on about 29 metres.

England: G5SW, GBX.

Germany: DHC.

Java: PLG, PLH, PLE.

Fiji: VDP.

Philippines: KZRM, K1XR.

Canada: CJA.

USSR: RA97.

The above stations have all been heard on telephony since February, and I will be glad to send reports to any of the above stations who require them. Many hundreds of Morse stations have been heard, including FL (Paris), and the "Southern Cross," which was heard the day before it landed in England. The receiver is a detector-in-adaptor, and two audio. The above list includes short-wave stations only.

Yours etc.,

L. T. LLOYD.

Glebe Point.

KGO and WLW

Dear Sir,—I cannot help expressing the performance of my "Three Valve Receiver." In my previous letters I mentioned the reception of the American stations in the broadcasting band. I have received two more since then—KGO and WLW, Cincinnati. The first time I received WLW was on 14.10.29 at 10 p.m.; he must have been about RA. This is what the announcer said:—WLW, Cincinnati, the time is one minute to 7," and then he advertised the new Crosley 21 Battery-less Radio Receiver in walnut cabinet; he played

Correspondence from readers interested in long distance reception is still arriving. Below we publish another selection of letters.

a couple of items, and I got the name of one of these; and since I have had this station several times now, sometimes I have heard him giving market reports some time after 10 p.m. here. Wavelength of this station is about 425 metres, just above 2YA.

I have received KGO a few times now, when they were closing down. KHJ on several occasions has been splendid, and I heard the gong more than once at midnight there; this station closes down mostly at 7 p.m. here. I have also heard an American station between 2BL and 1YA, but have not had call sign yet. I have heard another just below 5CL on 14.10.29, when I received them they were advertising something about heavy duty "B" batteries. This was about 10 p.m. (Did not get call sign of this station last night, 23.10.29). I heard a foreign station on about 428 metres; when received he was talking away in some foreign language for a few minutes. He stopped here on this wavelength, and then he shifted up about five metres, and the same thing went on back and forward for some time, and eventually closed down. Time received 10 p.m. to about 10.15 p.m. He was not a Jap. My log is now KNX, KHJ, KGO, and WLW.—Yours, etc.,

Wollongong.

K. FARQUHAR

"Two Valve" D.X.

Dear Sir,—I notice that in "Wireless Weekly" (Nov. 1) a reader signing himself "Deejay" (South Australia), asks for the address of 3PR. The QRA of this ham is:—Mr. W. R. Jardine, 264 Buckley Street, Essendon, W.5, Victoria.

Now, as regards your controversy over DX. On my "Two Valve" set I have received the following stations:—VK2WK, 2HG, 2KY, 2FC, 2GB, 4QG, 2HM, 7ZL, 6WF, 5CL, 6AG, 5DN, 5AX, 3LO, 3AR, 3LK, 3JR, 3UZ, 3DB, 3PL, 3AM, 3DK, 3QH, 3DC, 3BC, 3SW, 3RI, 3TM, 3MR, 3HD, 3GT, 3EF, 3MJ, 3RN, 3FS, 3EM, 3UJ, 3KP, 3CR, 3CB, 3CM, 3XP, 3HC, 3GL, 3EH, 3AP, 3XK, 3VG, 3LG, 3JR, 3ML, 3RB, 3JM, 5DX, 5WS, 6WF, 3BY, 3OT, 5BG, 3EX, 2MI, 3HB, 3DL, 2BL, 3BU, 3ME.

AMERICA: KFON, KHJ

INDIA: 7CA.

JAPAN: JOAK.

The only stations from the above list that were on short waves when I tuned them in are 2HM, 2HC, 5OX, 6AG. I have cards from all the above stations. I have only given you my DX reception on the higher wave band, not on the short waves. Do you think this good reception? --Yours, etc.,

Coburg, Vic.

WILL MURPHY

All Round the Globe

Dear Sir,—The writer is very keen on the logging of the international stations, and has in his possession DX cards from PCJ, KGO, and at the present waiting word from Manila, Pittsburgh, Schenectady, Siberia, Africa, and Siam, also have a number of "scalps" of Australian amateurs.

The following information might be of use to you in connection with KGO and Manila. KGO call sign, W6XN, WL, 23.34m.

power 5000 watts, time of transmission 12.30 to 4.0 p.m. Eastern standard time on Tuesdays, Wednesdays, and Fridays, which corresponds with 6.30 to 10 a.m. Sydney time on Wednesday, Thursday, and Saturday.

There is a German station situated at Nauen, north of Berlin, which is received here at good strength at 3 p.m. on Monday afternoons, the wavelength is 26.22m., power 15kw.

The latest information from PCJ is that the Australian programme, which is received here at 2 to 4 p.m. on Saturdays, is sent at their end at 4 to 6 a.m. Greenwich time; they also sent me the following schedule:—

Thursday, from 18.20 to 23.0 G.M.T.

Friday, from 0.3 and 18.29 G.M.T.

Saturday, from 0.6 and 18.20 G.M.T.

Last week I have been receiving Manila and Slam at a very good strength; it seems that Manila on Monday and Tuesday nights broadcast on 49m., and Thursdays and Fridays on a wavelength of 24m.; this is something quite new.

I logged a station in Morocco last week, call sign AIN, W.L., A5M., testing with gramophone records—strength R5 to 6 on 'phon's.

Trusting that this information will be of use to you, and wishing you every success for the future.

Yours etc.,

DONALD PATERSON.

Manly.

On James' Wavelength

Dear Sir,—I wish to join the very select band of super enthusiasts of DX. I am really a terrible liar; so I think you might allow me to relate my performances. How is this for reception:—All the stations ever mentioned by your DX hams have since wireless was invented by Mark Swain, plus a terrible number not yet received by anyone else than myself—all on a single valver. My set has a secret circuit (quite different absolutely, Mr. Hull), so I cannot give it here. But I may say the valve is an ordinary 50 c.p. house lamp, which burnt out one night in the bathroom. I soldered six or seven pins to the brass collar, and broke the glass in doing it; but sticking plaster is a wonderful repair for this type of valve trouble (owners of paltry six valves and upward who get 2FC and 2BL faintly on ear phones please note). Be sure to place the strip of plaster across the crack in the glass so as to save inter-action, which would, of course, prevent Alaskan stations coming in. Save some of the plaster to seal across the opening in the loudspeaker. To ordinary DX fans this may seem foolish, but my one-lunger is so tremendously powerful that this must be done, or life would be impossible for the neighbors at midday. My father is almost quite deaf since listening in to my set owing to the tremendous volume, so much so that he has to use my set now to hear anything owing to his deafness. I back my one-valver against anything in existence. On Tuesday, midday, I got deafening signals from a new station. The call number was H something LL. I could not get the complete call-sign owing to the deafening volume, but someone called Nick was speaking, and I noticed a horrible smell of burning. Can any ham tell me what station this might be? I often set it at home when I put in more time on the wireless than my wife thinks I should. I have discarded all leads, condensers, aerial and earth wires, batteries, and rheostats on my set in order to prevent too many distant stations coming in, and have changed all the wiring, which was blue, to green. I hope this will tone down the signal strength considerably. Can any ham (and eggs) beat this?—Yours, etc.,

Haberfeld.

ANANIAS.

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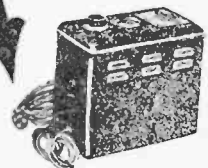
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Taking Curves of Radio Receiver Performance

AS far as we are aware, there does not exist in Australia a set-up suitable for taking a complete set of curves of the performance of a receiver. As a result, all of us—even the radio manufacturers themselves—must judge the performance of a set chiefly by listening to it. The taking of receiver performance curves in America has now become quite general, and a standard method of presenting the curves has been evolved. The curves and the method of taking them has recently been discussed in simple language by P. S. Lucas in "Radio," and because of the interest and value of his explanation, we reprint some portions of it. "The practical value of performance curves for the dealer, salesman, or service man," states Mr. Lucas, "is that they enable him to tell the inquirer just exactly what may be expected of that set in the way of selectivity, sensitivity, and fidelity. Every experienced merchandiser knows that a reputation

Curves Ahead

The Experimenters' Department of Technical Progress. Conducted by Ross A. Hull, M.I.R.E.

50 mw, a reading of the input was taken and plotted on a line 1 kc to the left of the zero line.

"Other points were taken at 2, 3, 5, 10, 15, 20, 25, and 30 kc above resonance, then similar readings were taken below resonance. When points had been plotted up to 30 kc each side of the zero or resonance line with the receiver unchanged a line was drawn through the dots and the 600 kc curve in figure 1 took form.

"The next step is to tune both the receiver and oscillator to 1000 kc, set the sensitivity control of the receiver, so that an input of 1 millivolt (mv) will produce an output of 50 milliwatts from the receiver and repeat the process of plotting. The curve for 1400 kc is obtained in the same manner.

"The 600 kc selectivity curve shows how much greater must be the field strength of an interfering station at some frequency off resonance to cause interference with the selected signal; or how much interference it will cause at any frequency off resonance. Suppose the interfering station is in the adjacent channel, 610 kc. Here the curve crosses the 10 kc positive line, i.e., 610 kc, on the horizontal line marked 36 mv, which means that the interfering station on 610 kc must have a field strength of 36 millivolts to cause 100 per cent. interference, or to be heard with the same volume as the 600 kc station. Following the curve out still farther it will be noted that a station on 620 kc will require 270 millivolts field strength, or 270 times as much as is required by the chosen station.

After discussing the significance of these selectivity curves and telling of their relationship to the ability of the receiver to respond to the higher audio frequencies, Mr Lucas proceeds to discuss sensitivity.

SENSITIVITY CURVES.

"The standard of sensitivity, as defined by the Institute of Radio Engineers and chosen by the Radio Manufacturers' Association, is the number of microvolts per meter (mv/m)

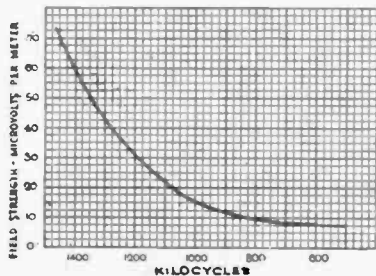


Fig. 2. Sensitivity curve of the same receiver.

required at the input of a receiver to produce an output of 50 milliwatts. The number of microvolts per meter means the field strength of the broadcast station at any particular location divided by the number of meters in the height of the receiving antenna. To test for sensitivity the receiver is set up with the same equipment and in the same manner as it was for the selectivity measurements, except for the fact that the sensitivity control was set at maximum.

To read the sensitivity curve is merely a matter of following the path of the curve to the desired vertical frequency line, then of following the intersected horizontal line to the left, and reading the figure opposite it. The sensitivity curve of the ideal receiver will be almost horizontal, indicating that the sensitivity varies but slightly from the end of the dial to the other.

FIDELITY CURVES

"Fidelity curves are measured in audio frequency (cycles per second of the musical tone), and decibels (the unit of gain or loss). Because decibels are tainted with an odor of higher education is no reason why an ordinary human should be alarmed, for the use to which they will be put in this work is very simple and concrete.

"A decibel (db) represents the minimum

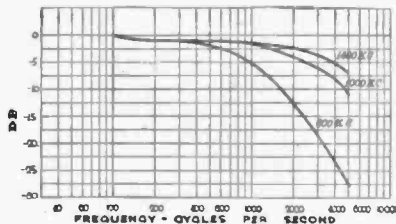


Fig. 3. Fidelity curves on 600, 1000, and 1400 kc.

difference that the human ear can detect between two sounds. As an illustration, average conversation has 10,000 times the energy of the faintest audible sound, yet to the ear it is only 40 sound units louder. This conversation then indicates a gain or increase over the faint sound of 40 db. If an airplane motor, the purr of which is just perceptible to a distant listener, the sound energy is 1,000,000,000 times greater; yet to the person in the 'plane it sounds merely 100 sound units louder than to the distant listener. The gain is 100 db.

"To be able to understand the fidelity curve it is not necessary to be able to work problems in logarithms. Suffice it to say that a decrease of 10 db between middle C and any other note does not make a great difference in the quality of tone reproduction. A loss of 20 db is more serious, while a 30 db loss indicates that the frequencies so reduced are pretty much out of the picture. The 1000 kc curve in Fig. 3 is a sample of a fair fidelity curve. In this case the bass was slightly emphasised with respect to the middle frequencies, and the high notes begin to drop off at about 1000 cycles. At 2000 cycles a loss of almost 4 db is noted; at 4000 cycles the loss is 8 db, and at 5000 cycles the volume drops a total of 11 db, just past the point where it begins to be noticeable. In this receiver, then, the critical ear should be able to detect a very slight attenuation to the high notes, while the best the ordinary ear could do would be to perceive the fact that the tones, especially in the human voice, were not as 'full' as in a more faithful receiver. This is due to the fact that the fullness of a musical tone is dependent upon the harmonics of which it is comprised. These, being on the higher frequencies, of course, have been reduced in strength."

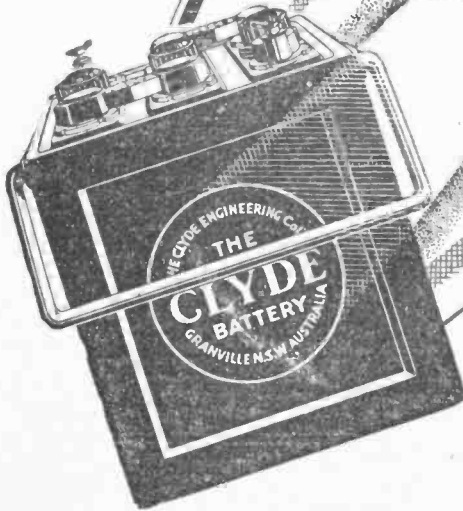
for accurate opinions will bring him more business than a dozen billboards and a silver balloon.

SELECTIVITY CURVES.

"The selectivity curves in figure 1 were taken from a standard receiver which was set up in the laboratory and trimmed for satisfactory reception, just as if it were being installed in the home. Instead of connecting an aerial and ground, the output of a testing device was connected to its input. A vacuum tube voltmeter was connected to the output of the receiver and calibrated at one point to indicate 50 milliwatts (mw), and the receiver was tuned to 600 kc. (500 meters) The oscillator in the test set, which was modulated to simulate the modern high-class broadcast station, was adjusted to 600 kc also, and was set at 1 millivolt. Then the sensitivity control of the receiver was adjusted so that the output meter read the prescribed 50 mw, this being the standard established by the Radio Manufacturers' Association.

"The frequency of the oscillator was then raised to 601 kc; the receiver being left untouched. Due to the fact that the two instruments were now out of tune, the output of the receiver dropped slightly. The input was increased until the output was back to

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Continuing the series of articles for the A.O.P.C. course.

Rectification In Transformers

Radio Proficiency

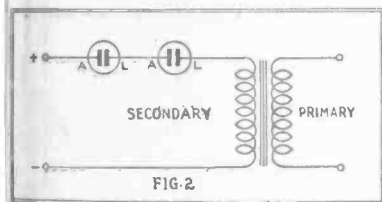
LEAD and iron are not satisfactory for use as auxiliary electrodes in an aluminium rectifier that has an organic solution, but they work well with a borax solution or with the dilute baking soda solution. A carbon electrode will be satisfactory if an organic rectifier solution such as citrate, acetate, or tartrate is used. In the construction of electrolytic rectifiers, it is usual to allow a 10 per cent. margin for safety. In the case of our example, 14 jars were required. We should allow at least another jar, making the total 11 jars.

Now glance at Fig. 1. You will note this method allows us to make use of the centre tap. Each arm of the rectifier has the total secondary voltage across it, i.e., 500 volts, since 500 volts a.c. is supplied either side of the centre tap. Therefore each arm must have 11 jars in it. If the arrangement was such that one arm only carried the total voltage, then only 11 jars would be required.

THEORY OF OPERATION.

It is interesting to pause here for a moment, and see how this centre tap allows us to obtain 500 volts d.c.

The a.c. is, of course, continually reversing its polarity. Those who haven't learnt this much by now should give up as a bad job! Now, at the moment that the top connection of the transformer shown in the diagram is positive, the other end will be negative to the extent of 1000 volts. The centre tap is only negative to the extent of 500 volts. The



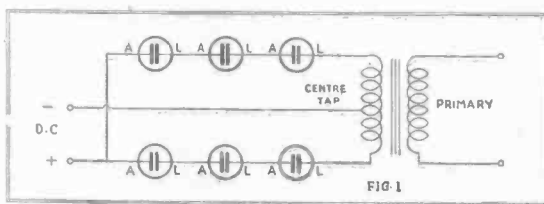
rectifier, we have learnt, allows the current to flow only in one direction, by removing the negative half cycle. That means that the rectifier (top arm) will allow the current to pass along this leg, but no current will flow along the bottom leg, since this portion is negative. When the half-cycle is completed the other end of the transformer becomes positive. The top connection will then be negative to the extent of 1000 volts, and only the positive portion is allowed pass through the rectifier. Therefore 500 volts will flow for an instant between the bottom leg and the centre tap.

If only one arm were used and the centre tap disregarded as in Fig. 2, current would only flow when that end of the transformer secondary connected to the rectifier was positive. Thus there would be a gap or break every half-cycle whilst the end was negative. This is known as half wave rectification. That shown in Fig. 1 is full wave rectification, because a flow of current is obtained on each half-cycle.

Now often it is only possible for us to obtain a transformer with no secondary tap, and we get over the trouble here by using what is known as the bridge rectifier. This is treated in the A.R.R.L. Handbook, and in

it is stated: "In the bridge connected rectifier the secondary delivers, say, 500 volts, two rows of, say, 12 jars each being in parallel across the secondary, 24 jars total number. There are four groups of six jars each." A diagram of this type rectifier is shown in Fig. 3.

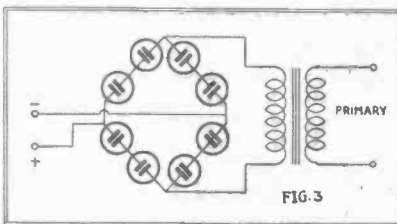
The same number of jars are required for the bridge rectifier as in that previously treated.



FORMING

One must be very careful indeed when forming the rectifier, far more careful than when performing the "Proving Radio" experiment. If you remember what was said then, you will know that there is almost a dead short across the transformer secondary when the circuit is closed, and the current will be quite high until the film is partially formed.

A resistance, or bank, or lamps should be placed in series with the input to the power transformer. If one lamp is placed, as shown in Fig. 4, the lamp will get dimmer and dimmer as the load is taken up by the rectifier, and larger lamps or more lamps can then be placed in parallel with the



other. Placing the lamps in parallel, of course, reduces the resistance. This procedure should be followed until the rectifier will withstand the full voltage.

One can easily find the resistance of any lamps he has if he knows the wattage. W equals VA (E), therefore if the voltage is 240, and the wattage 10, the current will be I equals E over W , equals 10 over 240, or 1-24th amp. From this we can find the resistance by Ohm's Law— R equals V over I equals 240 over 1-24th, or 5760 ohms. If all the same type lamps are used, the resistance can be decreased in even steps until it is only a few ohms, when the lamps may be removed from circuit.

The jars must not be allowed to heat, as the film on the aluminium commences to break down at 120 degrees F. If there is sparking, the rate must be reduced by in-

serting more lamps in series. A well-formed aluminium will have a smooth, thin, dull white surface. After several hours' forming, the rectifier will keep in good condition, with occasional use. Space is up, so a little more of this interesting subject next week, then on to filter circuits.

I omitted to mention for the sake of those inclined to be a little more inquisitive than most that the aluminium film is of oxide. Oxide and gas are responsible for the rectifying action, and the gaseous film forms as soon as the jars are connected to the source.

There should be no sparking. This is a sign of too much voltage per jar, and if you have allowed the safety margin discussed in a previous issue, and still get sparking either your transformer is giving too high output

or you have not enough resistance in the primary lead. Each cell should have a phosphorescent glow.

It is doubtful and, indeed, inadvisable for the beginner to commence right away with rectification of very high power by this means, but, unless artificial cooling is resorted to, one may strike trouble unless the amount of submerged area is increased.

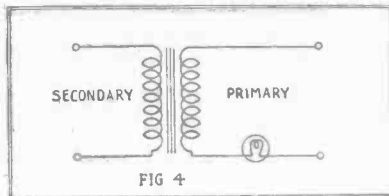
The rectifier must be allowed to form gradually. If the voltage is raised too quickly (i.e., if the resistance in the primary is reduced too quickly) the cells will overheat. Further forming should be suspended until the jars have cooled off.

It was mentioned that pure aluminium must be used. Unless the aluminium is pure it will not form. Impure aluminium shows brown spots. Greasy or dirty aluminium plates should be cleaned with vinegar or lye. Preserve jars or jelly tumblers make good condensers.

FILTERS.

Our D.C. supply still has a ripple in it. Though this is not too bad on Morse it means that our carrier wave will be broken up on telephony, and the result will be almost intermittent speech. We, therefore, use a filter, which compensates for the rise and fall, and gives us a more steady power input. The filter has already been discussed in theory; we shall now look to the practical side.

A good filter discussed in the A.R.R.L. Handbook appeals because of its simplicity. It is termed a "brute force" filter, and consists of a 30 Henry choke and two 2 mfd. fixed condensers. The filter absorbs energy during the overloading periods—i.e., when the pulsating D.C. rises in amplitude.



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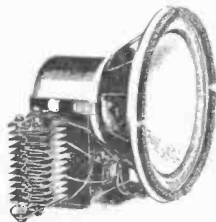
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Mulching the Soil

(By G. W. COOPER, who speaks on gardening from 2BL every Saturday morning at 10.40.)

MANY of my correspondents to 2BL during the last three years have asked me what is the meaning of "mulching the soil." A few remarks on this will help everyone engaged in tilling the soil, especially the cottage and villa gardens of Sydney and suburbs.

Nature is the real guide to all successful growers of fruit, flowers, and vegetables—take the forest, its magnificent timbers, undergrowth, and scrub, where there is not the slightest help from mankind. You ask, Why is it that trees and plants do so well, and, in a great many cases, better there than where they are cultivated by man? The principal reason why trees and plants flourish in the bush is that the surface soil has been mulched (protected, as it were), with a layer of decayed leaves (leaf mould), twigs, etc., for centuries past.

Sometimes a bush fire comes along and burns everything up, leaving only the ash, which contains potash and other valuable fertilisers, so that with the first rain there is a wonderful growth of seedlings of all descriptions, all fed from the surface soil, mulched by decayed leaves, etc. It is this mulch which protects the soil from the drying winds, hot sun, and heavy rains, which would sour the soil of all its goodness if it were not for Nature's protecting coat of decayed vegetation.

In a cottage or villa garden everything of the shape of a green leaf is religiously dug out until the soil is comparatively bare of everything. Of course, this must be done to enable you to cultivate your favorite flowers, vegetables, and plants to perfection.

Here is the opportunity for man to be guided by Nature to protect artificially the surface of his garden, as Nature protects her plants of the forest. Decayed leaves are the hardest to procure, especially as time goes on; the expansion of the suburbs means fewer trees and less leaf mould where formerly there were plenty. The easiest material to use is cow manure. If old, it may be used for anything, no matter how tender the plants may be; if new, this manure may be used on most plants, but for ferns and such like green cow manure is a bit strong. It is quite safe to use on all established vegetable and flower plots and fruit trees. As a mulch, a couple of inches thick is about right for general use. Horse manure, if sifted, is a good protection for seed beds, put on just thick enough to dust the surface; while for seedlings, one inch thick makes a nice mulch; for established seedlings and vegetables, a two-inch mulch will do.

After six or eight weeks another inch can be added, as if this disappears, another inch or two can be given in a couple of months' time. Money is always well spent in mulching the surface with manure—it keeps the soil cooler, and it conserves the moisture in the soil, a great thing where water is scarce; in fact, if water is to be studied in summer-time mulching is absolutely necessary.

Not only does mulching conserve the moisture in the soil, prevent heavy rains scouring the soil, and lessen the effect of wind on the surface soil, but it feeds the soil from the surface in the natural way. On all soils that become sticky when wet, mulching the whole year round is best, so that in damp weather the feet do not compact the soil too much; also, it will not stick to your boots, providing the mulch is thick enough. Sandy soils also should be mulched the whole year round.

Sheep manure, two inches thick, is the best of all manures for mulching dahlias and Japanese iris. The finest dahlias I have ever grown were in Alexandra Gardens, Melbourne, and these were mulched with sheep manure. This was dug into the sub-soil in winter, and the following December the dahlias were planted and mulched with sheep manure on the surface.

In conclusion, I was first taught the value of mulching as a boy thirty-five years ago, in Melbourne, by my father. He has practised mulching for the past fifty-nine years in Melbourne, and is still going strong in that city.

(Mr. Cooper's moral being "Go thou and do likewise"; but whether he promises a concomitant longevity to enthusiastic mulchers or not is a matter between the reader and Mr. Cooper. "W.W." makes no such guarantee.—Ed.)

Light Socket Regulation

THE following warning in connection with radio apparatus connected to electric light mains, has been issued by the Electric Supply Department.

Most of the radio receiving apparatus which has been in use until quite recently, has depended for its electric current entirely on batteries. This apparatus, even when constructed by amateurs, is quite safe, and suitable for operation by amateur wireless enthusiasts. With the wireless apparatus which is now coming into use, current is generally obtained from the house lighting mains to operate battery eliminators, trickle chargers, and "all electric" sets. This apparatus is equally safe if it is constructed in accordance with well-defined rules, and is connected in a permanent and workmanlike manner. Unfortunately some of this apparatus is constructed and connected in an improper manner by inexperienced persons. When constructing electrical apparatus intended for connection to the house lighting mains, the following points should receive careful consideration:—

The apparatus must be wired and connected in a permanent manner, or through a proper outlet.

All flexible conductors used for connecting to the supply must be of a grade and type suitable for use on 240-volt installations.

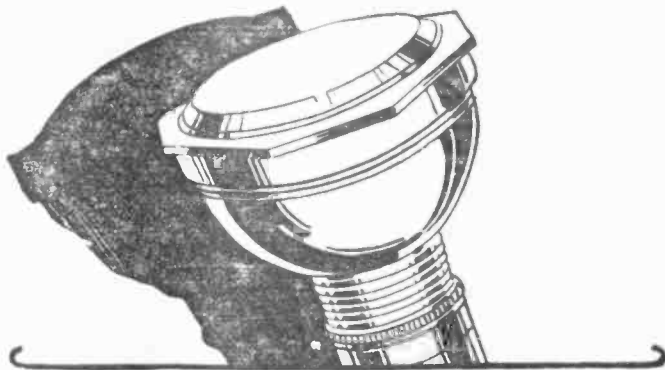
The 240-volt terminals must be completely protected from accidental contact.

Where the cases are of metal, they must be connected to earth with a stout wire having proper terminals at each end. This is most important.

Transformers intended for connection direct to the house lighting mains must be properly designed for their purposes with independent primary circuits and the covers and frames must be effectively connected to earth.

Anyone who purchases an "all electric" set made by a reliable maker can be assured that these points have been properly seen to in the manufacture of the set, and if the connection to the house installation is by standard means, and the frame of the set connected to earth, there is no possible risk involved in the operation of the set.

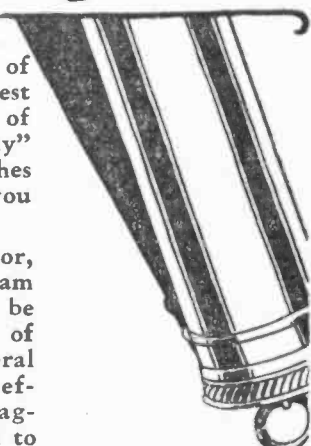
"NEATH Oriental Skies" is the title of a musical programme to be given from 3.0 on November 27. Humor will be provided with "Fun in Harem," while in more serious vein the delightful song cycle, "In a Persian Garden," will be introduced. The Oriental legend that forms such a fitting setting for the cycle will also be given, and many popular artists will contribute to a most enjoyable entertainment.



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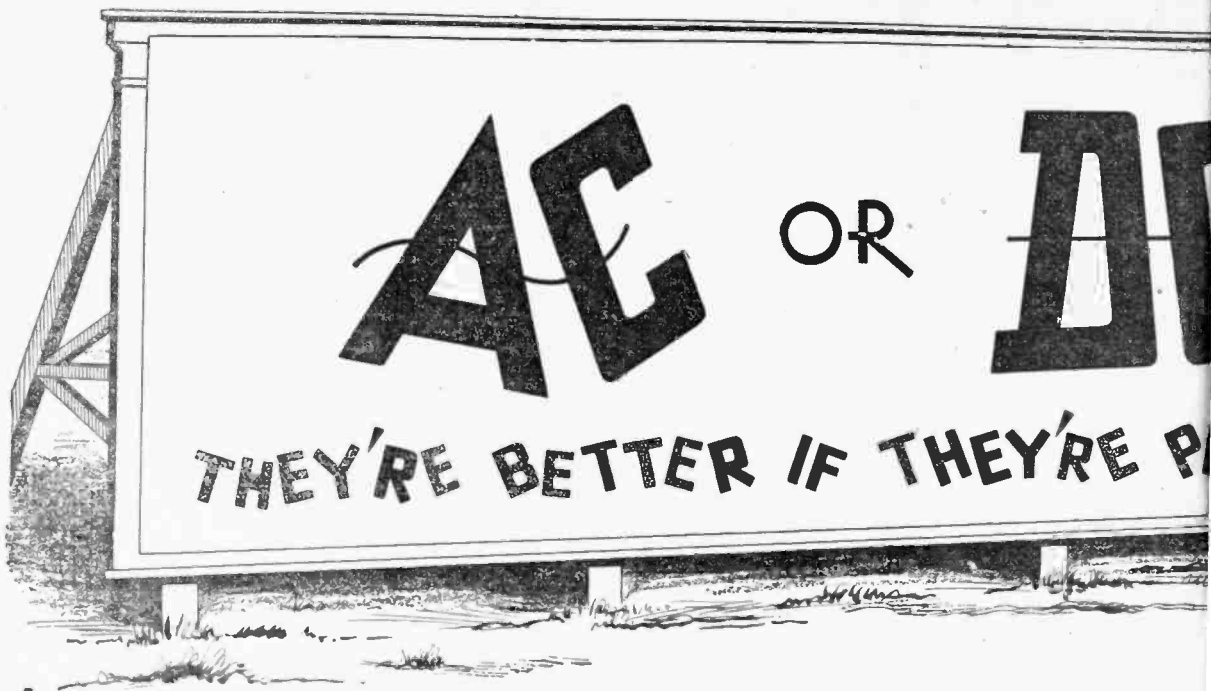
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E442	Screen Grid	—	1.2	32/6
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			80	100
A409	Gen. Pur.	0.06	4.5	6.0
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A425	Res. Cap. R.F.	0.06	1.5	2.0
A435	R.F.	0.06	—	—
A442	R.F. Screen Grid	0.06	—	—
†B403	Power	0.15	—	15.0
†B405	Power	0.15	9.0	12.0
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†B409	High Grade Power	0.15	4.5	6.0
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			80	100
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A630	Res. Cap. R.F.	.06	—	—
A635	R.F.	.06	—	—
†B605	Audio	.12	6.0	9.0
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MILTON

Local Programmes, Friday, November 22

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 151 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
 7.3: This morning's news from the "Daily Telegraph Pictorial."
 7.8: Austradio Musical Reproduction.
 7.45: Mails and shipping.
 7.48: What's on to-day.
 7.50: Children's birthday call.
 8.0: Music from the Studio.
 8.15: Close.

MORNING SESSION—10.30 to 12.30.

- 10.30: Announcements.
 10.32: To-morrow's sporting events by Oscar Lind.
 10.45: HORACE WEBER at the GRAND ORGAN.
 11.0: HOUSEHOLD HELPS: Cooking, by Miss Ruth Furst.
 11.10: CABLES (copyright), "Sun-Herald" and A.P.A. news service.
 11.15: MORNING DEVOTION.
 11.30: From 11.30 to 12.30 a programme will be transmitted from the Radio Show, 1929, from the State Shopping Block.
 Austradio Musical Reproduction.
 11.55: British Official Wireless Press.
 12.0: "Big Ben," Stock Exchange, and metal quotations.
 12.5: Captain L. ROBERTS will speak on "Rhodesia."
 12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board.
 12.30: Close.

THE LUNCH HOUR AND AFTERNOON SESSION.

- 1.0: Lunch hour music.
 1.55: A glance at the afternoon "Sun."
 2.0: Stock Exchange, second call.
 2.2: FROM THE SYDNEY CRICKET GROUND—description of the international cricket match in play, England v. N.S.W.
 4.0: From the Studio—THE 2FC INSTRUMENTAL TRIO.
 4.28: Stock Exchange, third call.
 4.30: Close.
EARLY EVENING SESSION—5.45 to 7.55.
 6.45: Children's "Goodnight" Stories, told by the "Hello Man," assisted by the Farmyard Five.
 6.45: Dinner Hour Music.
 7.20: A.B.C. Sporting Service.
 7.25: Special Country Session; Stock Exchange resume; markets; weather forecast; late news service from the "Sun;" truck bookings.
 7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30.

- The feature of to-night's programme is the talk prepared by Mr. George Black, "In my Anecdote." There is organ music, novelty piano items, and song groups by Alexander Raff, bass-baritone. The programme of band music relayed from 3LO, Melbourne, commences at 9.15, and will attract many listeners. 2BL offers new songs and radio sketches, popular selections by the National Broadcasting Orchestra Claude Corbett will give his sporting talk at approximately 10.10.
 8.0: From PITT STREET CONGREGATIONAL CHURCH—Organ recital, arranged by Lillian Frost—
 (a) "Allegro Appassionata" (Harwood).
 (b) "Andante" from the "Sonata in C Sharp Minor."
 FROM THE STUDIO.
 8.15: ALEXANDER RAFF, Bass-Baritone—
 (a) "Cloze Props" (Charlea).
 (b) "Yeoman's Wedding Day" (Pontiatovskl).
 (c) "King Charles" (White).
 8.22: From PITT STREET CONGREGATIONAL CHURCH—Organ recital, arranged by Lillian Frost—
 (a) "Romance in D Flat" (Lemare).
 (b) "Chanson d'Ete" (Lemare).
 (c) "Concert Rondo" (Hollins).
 8.34: From the STUDIO—ARTHUR WEND-

LING, in Mello Piano Novelties, with vocal interlude—

- (a) "Toymaker's Dream."
 (b) "Pal of my Sweetheart Days" (Cootes).
 (c) "All the Boys Keep Looking Down" (Brown).
 8.41: ALEXANDER RAFF, Bass-Baritone—
 (a) "Four by the Clock" (Mallinson).
 (b) "Three for Jack" (Squire).
 (c) "My Old Shako" (Trottere).
 2.48: ARTHUR WENDLING, in Mello Piano Novelties, with vocal interlude—
 (a) "Mean to Me" (Turk).
 (b) "This is Heaven" (Akst).
 (c) "I Can't Sleep in the Movies Any More" (Fields).
 8.55: THE COUNTRY MAN'S WEATHER SESSION—
 (a) Interstate weather synopsis.
 (b) New South Wales forecasts.
 (c) Yachtsman and Fisherman's forecast.
 8.57: GEORGE BLACK, "In my Anecdote."
 9.15: RELAY from 3LO, MELBOURNE.
 10.0: ROMANO'S CAFE DANCE ORCHESTRA, conducted by Bennie Abrahams.
 10.15: FROM THE STUDIO—Announcements and late official weather forecast.
 10.20: ROMANO'S CAFE DANCE ORCHESTRA, conducted by Bennie Abrahams.
 11.30: CLOSE. NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. Chimes and Announcements.
 8.16: Music for every Mood.
 8.40: Meteorological data for the country.
 8.45: Mails and Shipping Information.
 8.50: Memory Melodies.
 9.0: This Morning's Story.
 9.30: A Musical Interlude.
 9.40: British Official Wireless Press.
 9.45: New Music.
 10.5: News from the "Daily Telegraph Pictorial."
 10.10: Austradio Musical Reproduction.
 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.
 11.0: G.P.O. Chimes: Close Down.
MIDDAY SESSION—11.58 to 2.30 p.m.
 11.58: FROM THE SYDNEY CRICKET GROUND, ENGLAND v. NEW SOUTH WALES—"THE TOSS."
 12.0: Description of the Match in Play.
 1.15: FROM THE STUDIO: MRS. MEREDITH-ATRINSON will give a talk on "CAMBRIDGE."
 1.30: Austradio Musical Reproduction.
 2.0: J. KNIGHT BARNETT at the "Wurlitzer."
 2.12: Studio Music.
AFTERNOON ENTERTAINMENT—2.30 to 6 p.m.
 2.30: Austradio Musical Reproduction.
NOTE: DURING THE AFTERNOON ITEMS FROM THE RADIO SHOW, 1929, WILL BE TRANSMITTED FROM THE STATE SHOPPING BLOCK.
 3.0: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Syncopaters, in Dance Music.
 3.12: FROM THE STUDIO: WINIFRED BATCHELOR, Soprano—
 (a) "Romance" (Ponchielli).
 (b) "The Blacksmith" (Brahms).

- (c) "The New Umbrella" (Besley).
 3.19: A NEW SONG.
 3.22: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Syncopaters, in Dance Music.
 3.32: FROM THE STUDIO: MINETTE CANNY, Monologues—
 (a) "Johnnie" (Thompson).
 (b) "Little Coon's Prayer" (D'Arcy and Hope).
 3.39: MELODY MEMORIES.
 3.42: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Syncopaters, in Dance Music.
 3.52: FROM THE STUDIO: WINIFRED BATCHELOR, Soprano—
 (a) "In Questa Tomba" (Righini).
 (b) "The Cloudy Heights of Tartar" (Dvorak).
 (c) "How the Holly got its Thorns" (Bexley).
 3.59: MINETTE CANNY, Monologues—
 (a) "Agatha Green" (Cooper).
 (b) "A Fat Lil Feller" (Gordon).
 4.6: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Syncopaters, in Dance Music.
 4.15: FROM THE SYDNEY CRICKET GROUND: Description of the Match, ENGLAND v. NEW SOUTH WALES.
 6.0: Close Down.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
 6.45: THE BOY SCOUTS' CLUB, conducted by Mr. Norman Lyons.
 7.5: The Country Man's Market Session—Wool, Wheat, Stock, Farm Produce, Fruit, and Vegetable Markets.
 7.20: DINNER MUSIC.
 7.45: Austradio Musical Reproduction.
 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

- A slight alteration has been effected in the routine of the new service, and this will necessitate Mr. Claude Corbett giving his sporting talk is approximately 10.10 p.m. on a Friday night instead of 7.5. To-night the Orchestra is contributing popular selections; there are new sketches by Scott Alexander, a welcome reappearance of Molly de Gunst (soprano), cello solos by Muriel Lang, and a group of numbers by Clement Q. Williams (baritone). Francis Jackson continues his series, "Why We Laugh," at 9.26.
 8.0: MOLLY DE GUNST, Soprano—
 (a) "Dawn" (Curran).
 (b) "The Mirror" (Ferrari).
 (c) "A Birthday" (Woodman).
 8.7: MURIEL LANG, "Cellist"—
 "Kol Nidrei" (Max Bruch).
 8.15: THE NATIONAL BROADCASTING ORCHESTRA (Conducted by Horace Keats)—
 (a) "Sunset Meditation" (Biggs).
 (b) Four Dances: "The Rebel Maid" (Phillips).
 8.32: CLEMENT Q. WILLIAMS, Baritone—
 (a) "Lord Randal" (Cyril Scott).
 (b) "Doubt" (Coates).
 8.40: SCOTT ALEXANDER presents an entirely new Radio Comedy, by Codrington Ball, entitled "CLINKING GLASSES."
 8.50: THE NATIONAL BROADCASTING ORCHESTRA—
 "A Supper with Suppe" (Movena).
 9.10: MOLLY DE GUNST, Soprano—
 (a) "Chanson Indoue" (Rimsky-Korsakoff).
 (b) "The Winds in the South" (Scott).
 (With Orchestral Accompaniment).
 9.17: MURIEL LANG, "Cellist"—
 "First Movement of Grieg Sonata" (Peters).
 9.24: Weather Information for the Man on the Land.
 9.26: FRANCIS JACKSON continues his series, "Why We Laugh."
 9.41: CLEMENT Q. WILLIAMS, Baritone—
 (a) "Linden Lea" (Williams).
 (b) "And So I Made a Villanelle" (Scott).
 9.48: SCOTT ALEXANDER will produce a new sentimental dramette, specially written for Radio by Codrington Ball, entitled, "SALVATION JIM."
 9.58: THE NATIONAL BROADCASTING ORCHESTRA—

NEXT WEEK

SPECIAL PORTABLE SET NUMBER

of "Wireless Weekly"
HOW TO BUILD A 4-VALVE SET TO TAKE ON VACATION.

"Selections of Songs" (Phillips).
 10.10: CLAUDE CORBETT will talk on
 "General Sporting."
 10.25: Late News from "The Sun."
 Late Weather Forecast.
 10.30: NATIONAL ANTHEM.
 CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St.,
 Sydney (Wavelength, 316 Metres).

10.0: Music. 10.10: Happiness talk by A. E. Bennett. 10.20: Music. 10.30: Women's session by Mrs. W. J. Stelzer. 11.30: Talk by Mrs. Jordan. 11.45: Close down. 2.0: Music. 2.5: Women's Radio Service by Mrs. Dorothy Jordan. 2.50: Movie Know All. 3.0: Talk by Miss Mary Rivett. 3.30: Close down. 5.15: Children's session by Uncle George. 6.50: Radio Movie Club session. 7.0: Music. 7.45: Feature story. 8.0: Miss Vera Winn, mezzo-soprano. 8.7: Symphony Orchestra. 8.15: Mr. Clement Hosking, baritone. 8.22: Instrumental Trio. 8.30: Mr. Jack Win and Mr. Heath Burdock, humor. 8.35: Miss Barbara Russell, soprano. 8.43: Band selections. 8.50: Miss Vera Winn, mezzo-soprano. 9.0: Weather report. 9.3: Madame Betts-Vincent in an illustrated talk on music. 9.17: Symphony Orchestra. 9.27: Mr. Clement Hosking, baritone. 9.37: Mr. Jack Win and Mr. Heath Burdock, humor. 9.40: Band selections. 9.50: Miss Barbara Russell, soprano. 10.0: Instrumental music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St.,
 Sydney (Wavelength, 267 Metres).

MIDDAY SESSION.

12.30: Request numbers. 1.0: Music. 1.15: Talk on Homecraft by Pandora. 1.40: Music and request numbers. 2.30: Close. 4.30: Musical programme.

EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close. 7.0: Request numbers. 8.0: Popular music. 9.0: Comments on foreign affairs by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close.

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2KY

Trades and Labor Council, Goulburn St., Sydney
 (Wavelength, 280 Metres).

MORNING SESSION.

10.0: Time in to the ticking of the clock. 10.3: Popular fox trots. 10.15: Calls and announcements. 10.30: WOMEN'S SESSION—Home Hints and Information. Mrs. GRAY. 11.0: A few laughs. 11.5: Pianoforte selections. 11.15:

Calls and announcements. 11.20: Musical interlude. 11.30: Request numbers. 11.40: Music and vocal items. 11.55: Where to go to-night. 12.0 (noon): Closing announcements.

CHILDREN'S SESSION.

6.0: Birthday calls, request numbers, and kiddies' entertainment: AUNT JEMIMA and UNCLE BERT.

EVENING SESSION.

7.0: Musical interlude. 7.5: Birthday calls. 7.15: SPORTING FEATURE—Turf topics, review of candidates and their prospects for to-morrow, Mr. GEO. A. DAVIS. 7.40: Request numbers. 8.0: Hawaiian steel guitar selections. 8.10: Women's Information Service, Mrs. GRAY. 8.30: Music and vocal items from the Studio. 9.10: SPORTING FEATURE, from the ringside of M'Hugh's Leichhardt Stadium, full description of main 15 rounds event. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra,
 Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION.

7.15: Breakfast-time hour orchestral music. 8.0: Clock and chimes. 8.1: Musical selections. 8.30: Close down.

MIDDAY SESSION.

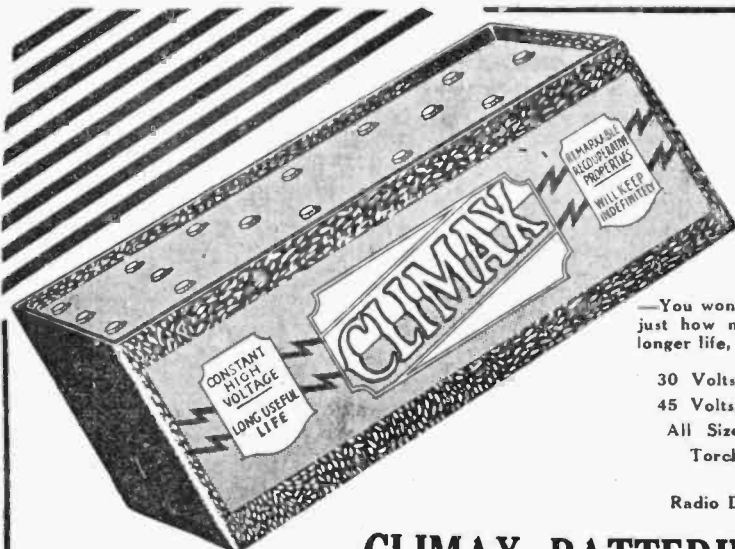
10.0: Women's Session, conducted by Miss D. Vautier, with musical items. 11.30: Old musical selections. 12.0 noon: Close down.

AFTERNOON SESSION.

1.0: Vocal and instrumental items. 1.45: Organ recital. 2.0: Close down.

EVENING SESSION.

6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Health Talk by Mr. Marsden, of Marsden Rheumatic Rooms. 7.25: Orchestral dinner music. 8.0: Clock and chimes. 8.1: Programme announcements, and news from the "Sun." 8.3: Overture, "Plaque Dame" Fantasia. 8.12: Orchestral and vocal concert. 10.15: National Anthem.



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Interstate Programmes, Friday, November 22

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0: Melbourne Observatory Time Signal. 7.1: Shipping news. 7.2: Physical exercises to music. 7.20: Reduced music. 7.40: Mail notices. 7.42: What's on to-day? 7.45: Market reports. 7.53: Weather forecasts. 7.55: News service. 8.0: Melbourne Observatory time signal. 8.1: Arrival times of express trains. 8.3: Musical interlude. 8.15: Close down.

MORNING SESSION.

10.30: Current Happenings in Sport, by Mel. Morris. 10.45: Musical reproduction. 11.0: Fifth market reports. 11.5: Musical reproduction. 11.30: Morning sales, Melbourne Stock Exchange; metal prices. 12: Melbourne Observatory time signal. 12.1: Musical reproduction. 12.15: News, cables, Corn Exchange, midday report; Newmarket stock sales; Associated Stock and Station Agents' official report. 12.40: Close down.

MIDDAY SESSION.

1: Melbourne Observatory time signal; Stock Exchange information; meteorological data; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecasts; river reports; rainfall data. 1.15: Comments on the day's news. 1.30: Musical interlude. 1.30: Around-Pacific cruise of San Francisco Board of Commerce. Speeches from luncheon on Chabre S.S. Malolo.

EDUCATIONAL SESSION.

2: The Races and Peoples of the World, Mr. H. J. O. Esmond. 2.15: Musical interlude. 2.30: Gems of English Literature. "The Arabian Nights." Prof. G. H. Cowling, M.A. 2.35: Musical interlude. 2.40: Some Wonders of Nature, Mr. J. D. Jennings. B.A.Sc. 2.55: Musical interlude.

THE RADIO MATINEE.

During the afternoon progress scores in the cricket match, England versus New South Wales, at Sydney Cricket Ground, will be broadcast as they come to hand. The Studio Light Orchestra, suite, "Intermezzo" (Rosse). 3.10: Courtney Ford and Ivy Davis, in a musical comedy sketch. "Side Door Eian". 3.15: Harry Bennett and His Xylophone, "Waltz Medley." 3.22: Leslie Jephcott, tenor. "Where My Caravan Has Rested" (Lohn). "Lolita" (Pecora). 3.29: The Studio Light Orchestra, humorous interlude—"A Police Patrol" (Ewing). "A Perfect Day" (Jacoba-Bondi). 3.36: Jean Kinross, contralto—"Turn Once Again" (Giordani). "Salaam" (Lang). 3.43: J. Barrille Rute—request item. 3.47: Courtney Ford and Ivy Davis, a musical comedy sketch—"Astronomy Antics." 3.55: The Studio Light Orchestra—"The Music Box" (Primi). "Intermezzo Pittoresque" (Roclan). 4.3: Leslie Jephcott, tenor—"The Empty Nest" (Carlton Mason), selected. 4.10: Harry Bennett, Xylophone—"The Waters of Minnesota." 4.15: Jean Kinross, contralto—"Here in the Quiet Hills" (Carno). "Ships that Pass in the Night" (Stephenson). 4.22: The Studio Light Orchestra—Selection from "Mary" (Herschi). 4.30: Close down.

THE CHILDREN'S CORNER.

6.45: "Plain Peter" and "Holloking Hits."

EVENING SESSION.

6.35: Melody broadcast. 6.45: Cricketing Hints—Mr. H. L. Hendry. 6.55: Musical interlude. 7: Melbourne Observatory time signal. 7.1: Countryman's Session. 7.25: Gardening Hints—Sprays and Spraying. Mr. H. Westcott. B.A.Sc. 7.40: News. 7.45: Romance of Rhims, Dr. E. Sweetman, M.A. Litt.D. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: Collingwood Citizens' Band (Conductor, F. C. Johnson)—March. "The Veterans' Return." Overture. "Morning, Noon, and Night." 8.10: Dawn Harding, mezzo-soprano—"I Love You" (Cirel). "Jessamin" (Schumann). 8.17: Pietro Barcoli, violin. "Chanson Louis XIII and Pavane" (Couperin-Kreisler). "Melodie Arabe" (Giazounov-Dushkin). "Slavonic Dance No. 1" (Dvorak-Kreisler). "Spanish Dance" (Oranados-Kreisler). 8.31: Bartleman Male Choir (under direction A. C. Bartleman)—"Who's the Best" (Schubert). "Night" (Schubert). "The Soldiers' Chorus" from "Faust" (Gounod). 8.41: Harry Bennett, Xylophone—"You Werr Night for Me." 8.48: "The Tattlers"—Light Comedy Company present "The Trials of a Theatrical Agent." 9.15: Collingwood Citizens' Band—selection of old-time songs. 9.26: Dawn Harding, mezzo-soprano—"The Haven" (Holliday). "Columbine's Garden" (Besley).

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9.34: Collingwood Citizens' Band—Trombone solo, "Angels Guard Thee"; fox-trot, "Walking With Sirie." 9.42: Bartleman Male Choir—"The Rosary" (Nevins). "Viking Song" (Coleridge-Taylor). 9.50: Harry Bennett, xylophone—"Roses of Picardy." 9.56: "The Two Wags"—ten minutes' fun. 9.57: Collingwood Citizens' Band—Waltz, "Angela Mio." 10.15: Eric Welch will speak on—"To-morrow's Epsom Turf Club Races." 10.25: British official wireless news, meteorological information; items of interest. 10.35: Paul Jacale and His Band—latest dance music. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION.

8.15: Musical reproduction. 8.45: Weather. 9.0: Chimes. 9.1: News and cables. 9.30: British official production. 10.0: 10.1: British official wireless news. 10.10: Announcements. 10.30: Arnold Coleman at the Wurliizer. 10.50: The Daily Broadcast Service. 11.0: Close down.

MIDDAY SESSION.

12.0: Chimes. 12.1: Famous Women—Madame Ristori—Miss Annes St. Clair. 12.15: Fifteen minutes' synopsis. 12.30: Luncheon music, supplied by the Studio Light Orchestra. 2.0: G.P.O. Chimes.

AFTERNOON SESSION.

2.1: Orchestral—Grand Symphony Orchestra—Overture. 2.8: Tenor—Carl Martin Oehmann. 2.12: Celso—Armin Liebermann. 2.16: Comedians—North and South. 2.19: Orchestral—Berlin State Opera House. 2.22: Baritone—Wm. Fassbender. 2.26: Harpsichord—Anna Linde. 2.29: Soprano—Emmy Bettendorf. 2.32: Band music—Massed Military Bands. 2.35: Comedienne—Sophie Tucker. 2.37: Celso—Armin Liebermann. 2.42: Baritone—Wm. Fassbender. 2.46: Harpsichord—Anna Linde. 2.49: Soprano—Emmy Bettendorf. 2.52: Band music—Massed Military Bands. 2.55: Comedians—North and South. 2.58: Orchestral—Harry Reed's Orchestra. Mainly for Women. 3.0: Special Health Week address—Mrs. A. N. Gilles. 3.15: Musical interlude. 3.20: A chat by a prominent woman. 3.35: Musical interlude. 3.40: Social chatter—The Flapper and Aunt. 3.55: Musical interlude. 4.0: A Woman's Wanderings Through the Empire—Mrs. Chas. King. Traders' Demonstration Session. 4.15: Musical reproduction. 5.0: Chimes. 5.1: Musical reproduction. 5.30: Weather. 5.45: Close down.

EVENING SESSION.

6.15: Dinner music, supplied by the Studio Light Orchestra. 7.30: What's on the Air To-night? 7.32: Sporting results. 7.35: Road Notes. 7.40: Latest musical releases. 8.0: G.P.O. Chimes.

NIGHT SESSION.

8.1: A.I.F. Recollections—Dulcicourt—Mr. C. Ellis Community singing. 8.15: Community singing, transmitted from the Western Town Hall, Conductor—Frank Hatherley. 8.20: Weather information and "Herald" news. Gable news service (copyright Australian Press Association and "Sun"). 11.40: News Service, Ltd. 10.30: God Save the King.

4QQ

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

EARLY MORNING SESSION.

7.30: News. 7.58: Time. 9.0: R.P.O.s. 8.15: News. 8.30: Close.

MORNING SESSION.

11.0: Music. 11.5: Social news. 11.15: Cookery talk by "The Etiquette Girl." 11.30: Music. 12.0 (noon): Close down.

MID-DAY SESSION.

1.0: Market reports; weather. 1.30: An entertainment. 2.0: Close.

AFTERNOON SESSION.

3.0: Records. 3.30: Mail train running times. 3.31: Music. 4.15: Close.

EARLY EVENING SESSION.

6.0: Mail train running times; mail information; shipping news. 6.5: Dinner music. 6.25: Commercial announcements. 6.30: Redtime stories, conducted by the "Sandwich." 7.0: News. 7.5: Stock Exchange. 7.8: Metal quotations. 7.7: Market reports. 7.25: Fenwick's stock report. 7.30: Weather. 7.40: Announcements. 7.43: Time signals. 7.45: To-morrow's sporting intelligence reviewed.

NIGHT SESSION.

8.0: The Silkstone Apollo Club—"Viking Song." 8.4: The Rhythm Rascals—Popular numbers. 8.14: J. Haggarty (baritone)—"Vale" (Russell). 8.18: The Silkstone Apollo Club—Chorus. "The Water Lily" (Pastor (Robert)). 9.27: T. Westwood (tenor)—"Songs of Araby" (Clay). 9.36: Clare Matthews (violinist)—"Cardas" (Monti). 9.30: The Silkstone Apollo Club—Chorus. "Hape the Hornblower" (Hantock). 9.35: D. Owens (elocutionist)—"If." 9.40: The Rhythm Rascals—Syncope. 9.46: The Silkstone Apollo Club—Chorus. "Belinda's Dog" (Hunt). 9.50: Clare Matthews (violinist)—"Midnight Bells" (Kreisler). 9.54: The Silkstone Apollo Club—"Who Rides to the King" (Sommerville). 9.0: Metropolitan weather forecast; week-end road information for motorists officially supplied by the R.A.C.O. (Robertson). 9.16: The Rhythm Rascals—Entertainers. 9.25: Thelma Marsh (soprano)—"Robin Adair" (Old Scotch).

9.30: The Silkstone Apollo Club—Chorus. "Thine is the Glory" (Vincent). 9.34: Messrs. Westwood and Thompson—Vocal duet (selected). 9.35: The Silkstone Apollo Club—"Musical Muddle" (Lewis). 9.44: The Royal Quartette—"In this Hour of Softened Splendor" (Pinsini). 9.50: The Silkstone Apollo Club—Hymn tune. "Huddersfield"; chorus. "Annie Laurie." 10.15: News supplied by the metropolitan dailies; weather information. 10.30: The Rhythm Rascals—Entertainers. Close.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

MORNING SESSION.

During the day descriptions of the interstate cricket, South Australia v. New South Wales, will be given. 11.15: Recordings. 11.45: Kitchen Craft and Menu Talk. 12.1: Recordings. 12.15: News. 12.40: Recordings. 12.52: Railway, Stock Exchange, and meteorological information. 1.1: Player piano session. 1.15: Recordings. 2.0: Close.

AFTERNOON SESSION.

3.0: Programme review and announcements. 3.4: Recordings. 4.1: Player piano session. 4.15: An educational talk. 4.25: Stock Exchange. 4.30: Close.

EVENING SESSION.

6.0: Chimes. 6.1: Children's birthday greetings, correspondence, songs and stories. 6.15: Children's request numbers. 6.30: Dinner session. 7.1: Senioj Birthday League greetings. 7.2: Sporting service. Selections for to-morrow's races at Port Adelaide and Epsom; Stock Exchange and market reports. 7.30: Mr. R. G. Brinkman will give a talk under the auspices of the Royal Automobile Association. 7.35: "Mo" Manning will review cricket. 7.45: Dr. Jethro Brown.

NIGHT SESSION.

8.0: Chimes. Programme review. 8.10: The Steiner Trio—"Aldo" (Verdi), "Melodie" (Moszkowski). 8.20: Mary Edson (soprano)—"If I Were a Bird" (Liaa Lehmann), "The Sista" (Squire). 8.27: Nigger Minstrel Entertainment (arranged by Frank Perrin). 8.30: Meteorological information, including Semaphore tides, overseas grain report, announcements. 9.5: The Steiner Trio—"Miniature Suite" (Frank Bridge), "The Wailing Hour" (Zamecnik). 9.15: The Lyric Male Quartette—"Lucky Jim" (Parks), "Pleasantly Lullaby" (Macy). 9.22: Nigger Minstrel Entertainment (continued). 9.52: Mary Edson (soprano)—"A Birthday" (Woodman), "Do You Know My Garden" (Haydn Wood). 10.0: The Steiner Trio—"Prelude and Staccato" (Lachner). 10.08: The Lyric Male Quartette—"How Do You Do" (Fleming), "Tattlebury Market" (Lewis). 10.10: "The Advertiser" general news service, British official wireless news, meteorological information. Sporting news; Selections for to-morrow's races at Port Adelaide and Epsom. 10.30: Dance music; recordings. 11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 335 Metres).

EARLY MORNING SESSION.—7.30: Chimes. 7.31: Meteorological report. 7.32: The day's maxim. 7.35: Music. 7.55: Mails and shipping intelligence. 8.5: Wide-wide cables. 8.10: Musical reproduction. 8.27: Features of to-day's programme. 8.30: Close. MORNING SESSION.—10.0: Chimes. 10.1: Musical reproduction. 10.10: Women's Interest. Talk by Dorothy Graham. 10.30: Musical recital from the Ambassador's Theatre. 11.0: Close. MID-DAY SESSION.—12.30: Chimes. 12.31: Musical reproduction. 12.35: Market reports. 12.45: News. 1.27: Item of interest. 1.0: Weather. 1.2: Luncheon music. 2.30: Close. THE RADIO MATINEE.—3.30: Chimes. 3.31: Musical reproduction. 3.45: Women's Interest Talk. "Labor Women's Central Executive." 4.0: Concert broadcast from Nicholson's Studio. 4.55: Features of this evening presentation. 5.0: Close. EARLY EVENING SESSION.—6.45: Chimes. 5.46: Children's Goodnight stories by Uncle Bas and Aunt Maxine. Younger Set Session. 6.30: Dinner music. 7.30: Weather. 7.31: News. 7.35: Market reports. 7.40: Stock Exchange information. 7.42: Review of to-morrow's sporting fixtures. 7.57: Entertainment programme.

EVENING SESSION.—8.0: Chimes. 8.1: Weather. 8.2: Waikiki Duo, instrumentalists. 8.12: Racing Anticipation by Russell Sandeman. 8.27: Reuben Betts, crooning baritone. 8.34: James Conary. 8.41: Reuben Betts. 9.0: Weather. 9.1: Waikiki Duo, instrumentalists. 9.11: Ringside description of wrestling contest broadcast from Olympia Gardens by Russell Sandeman. 10.0: What's on the air to-morrow? 10.18: Temple Court Dance Band. 10.30: Weather. 11.0: Chimes.

7ZL

Tasmanian Broadcasters Pty., Burnaby Bldg., Elizabeth Street, Hobart (Wavelength, 316 Metres).

11.30: Recital. 11.34: Midlands weather forecast. 11.35: Sonora recital. 11.55: Weather. 12.1: Shipping information; mail notices; Housewives' Guide. 12.8: Recital. 12.30: News; announcements. 12.46: Recital. 1.5: Railway auction sales. 1.10: Recital. 1.30: Close. 2.0: Chimes. 2.1: Recital. 3.4: Weather. 3.5: Recital. 4.15: Readings. 4.30: Close. 6.15: Children's Corner, with "Uncle David." 7.10: Recorded music. 7.30: News. 7.40: An hour with Maljoun McEachern (baritone). Edna Thornton (contralto), interspersed with instrumental numbers. 8.45: J. M. Counsel. "The History and Development of Music." 9.45: News. 10.0: Chimes. 10.1: Close.

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RCA Radiotron

Local Programmes, Saturday, November 23

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and Meteorological information for the man on the land.
- 7.3: This morning's news from the "Daily Telegraph Pictorial."
- 7.8: Austradio musical reproduction.
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.10: CONDITION OF THE ROADS supplied by the Main Roads Board.
- 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m. and the AFTERNOON SESSION.

- 10.30: Announcements.
- 10.32: A.B.C. racing observer.
- 10.45: Studio music.
- 11.0: HOUSEHOLD HELPS: week-end suggestions by Miss Ruth Furst.
- 11.15: Austradio musical reproduction.
- 11.53: British Official Wireless Press.
- 12.0: "Big Ben"; Stock Exchange, and metal quotations.
- 12.5: Studio music.
- 12.20: Midday weather forecast and weather synopsis.
- 12.50: FROM WARWICK FARM: Description of the A.J.C. Meeting in the running. NOTE—During intervals between races a musical programme will be given from the Studio.
- 4.35: Late sporting results.
- 4.45: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Good Night" Stories, told by the "Hello Man," assisted by Aunt Willa and Cousin Gwen.
- 6.45: Dinner Hour Music.
- 7.15: A.B.C. Sporting Service.
- 7.25: Special country session. Stock Exchange

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resume. Weather forecast. Late news from the "Sun."

7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

An entirely new atmosphere is introduced in our Programme to-night. We propose to give a concert from Cronulla—it is hoped the weather will permit of an open-air performance, but if conditions are unfavorable the entertainment will be broadcast from the Ballroom of the Hotel Cecil.

8.0: FROM CRONULLA: 2FC Concert Party, under the direction of Charles Lawrence, assisted by Maggie Foster, Rae Foster, John Stuart.

Accompanist, Horace Keats.

9.0: FROM THE STUDIO: THE COUNTRY MAN'S WEATHER SESSION.

(a) New South Wales forecasts.
(b) Interstate weather synopsis.
Yachtsman's and fisherman's forecast.

9.10: FROM CRONULLA: Second half of concert under the direction of Charles Lawrence.

10.0: FROM THE HOTEL CECIL: THE HOTEL CECIL DANCE ORCHESTRA.

10.15: FROM THE STUDIO:

Announcements.

Late Official Weather Forecast.

10.20: FROM THE HOTEL CECIL: THE HOTEL CECIL DANCE ORCHESTRA.

11.30: CLOSE.

NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
- 8.16: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Mails and shipping information
- 8.50: Memory melodies.
- 9.0: This morning's story.
- 9.30: A musical interlude.
- 9.40: British official wireless press.
- 9.45: New music.
- 10.5: News from the "Daily Telegraph Pictorial."

10.10: Austradio musical reproduction.
10.40: Mr. G. COOPER, Park Superintendent of City Parks, will give a talk on "Gardening."

11.0: G.P.O. chimes. Close down. MIDDAY SESSION AND AFTERNOON SESSION—12 to 6 p.m.

12.0: FROM THE SYDNEY CRICKET GROUND—

Description of the match, ENGLAND v. NEW SOUTH WALES.

1.15: FROM THE STUDIO—

Austradio Musical Reproduction.

2.0: FROM THE SYDNEY CRICKET GROUND—

Description of the match in play.

4.0: FROM THE STUDIO—

Announcements.

Sporting results.

Studio music.

4.15: FROM THE SYDNEY CRICKET GROUND—

Description of the match in play.

6.0: G.P.O. chimes. Close down.

THE DINNER HOUR—6.15 to 7.55 p.m.

6.15: DINNER QUARTET.

6.45: "THE CAPTAIN" to his Comrados.

7.5: The A.B.C. Sporting Service.

7.20: DINNER MUSIC.

7.30: FROM THE ARCADIA THEATRE—Nicholas Robins will give a request organ recital.

TO-NIGHT'S PRESENTATION—8 to 12. Saturday's popular programme, through 2BL is contributed by well-known radio artists, and favors a good evening's entertainment. Comedy numbers by Frank Ryan, piano novelties by Carlton Fay, Dorothy Steven in popular songs of the day, and rollicking ballad numbers by Basil Rye.

8.0: CARLTON FAY, novelty pianist—

(a) "Runaway Fingers" (Lopez).

(b) "Dolly Dimples" (Alter).

8.7: DOROTHY STEVEN, popular vocalist.

8.14: FRANK RYAN, comedian—

"Tons of Humor" (Ryan).

8.21: BASIL RYE, baritone—

(a) "On the Road to Mandalay" (Hedgecock).

(b) "Floral Dance" (Moss).

8.28: TO-NIGHT'S BIG SPORTING FEATURE.

9.31: Weather information for the man on the land.

9.33: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA, conducted by Cec Morrison.

9.43: FRANK RYAN, comedian—

"The Workshop" (Burnaby).

9.53: DOROTHY STEVEN, popular vocalist.

10.0: CARLTON FAY, novelty pianist—

(a) "Scrumbles" (Reinherz)

(b) "Marlly" (Lopez).

10.7: BASIL RYE, baritone—

(a) "Song of the Waggoner" (Breville-Smith).

(b) "Keep on Hopin'" (Maxwell).

10.14: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.

10.25: Late news from "The Sun."

Late weather forecast.

10.30: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.

12.0: NATIONAL ANTHEM.

2GB

Theosophical Broadcasting Station, 29 Bigh St., Sydney (Wavelength, 316 Metres).

3.0: Musical session. 7.0: Request hour. 8.0: Musical session. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

5.30 p.m.: Children's Hour, conducted by Uncle Jack. 6.30: Close. 7.0: Musical programme and request numbers. 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 290 Metres).

CHILDREN'S SESSION.
6.0: Birthday calls, request numbers, and kiddies' entertainment; AUNT JEMIMA and UNCLE BERT.

EVENING SESSION.
7.0: Musical interlude. 7.5: Birthday calls. 7.15: SPORTING FEATURE—Turf topics, how they ran to-day. 7.50: Request numbers. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION, as usual.
EVENING SESSION.

6.30: Wendy's Hour with the Children, and Birthday Greetings.

7.15: Turf talk, by Mr. Hopkins, Turf Expert. 7.30: Orchestral dinner music.

7.58: Programme announcements and news from the "Sun."

8.1: Overture, "La Tosca" Overture. 8.10: Vocal and instrumental selections. 10.15: National Anthem.

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Interstate Programmes, Saturday, November 23

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: See Friday.

MORNING SESSION.

10.30 to 12.30: As usual.

MIDDAY SESSION.

1.0 to 2.0: As usual.

AFTERNOON SESSION.

During the afternoon progress scores in the cricket match, England versus New South Wales, at Sydney Cricket Ground, will be broadcast as they come to hand. 2.0: Melody broadcast. 2.5: Description of Two-year-old Handicap, five furlongs, Epsom Turf Club races, by Eric Welch. 2.15: Description of cricket match. 2.25: Musical reproduction. 2.35: Description of Epsom Plate, six furlongs, Epsom Turf Club races, by Eric Welch. 2.45: Description of cricket match. 2.55: Musical reproduction. 3.0: Time signal. Sporting results to hand. 3.5: Description of cricket match. 3.10: Description of Brush Steeplechase, two miles 15 chains, Epsom Turf Club races, by Eric Welch. 3.20: Description of cricket match. 3.30: Musical reproduction. 3.40: Description of Epsom Purse, one mile, Epsom Turf Club races, by Eric Welch. 3.50: Description of cricket match. 4.0: Melbourne Observatory time signal. Sporting results to hand. 4.5: Description of cricket match. 4.10: Description of Epsom Handicap, one mile and a quarter, Epsom Turf Club races, by Eric Welch. 4.20: Description of cricket match. 4.30: Musical reproduction. 4.40: Description of Trial Welter, one mile, Epsom Turf Club races, by Eric Welch. 4.55: Description of cricket match. 5.0: Melbourne Observatory time signal. Sporting results to hand. 5.5: Close down.

THE CHILDREN'S CORNER.

5.30: Latest sporting results. 5.45: "Miss Kookaburra" has a lovely story for the little ones, "The Enchanted Lullie House." Special request music, and then the Birthday Greetings. 6.20: How to Make Things. Mr. Alex. Smith.

EVENING SESSION.

6.40: Sporting results. 6.55: Musical interlude. 7.0: Melbourne Observatory time signal. 7.1: Countryman's Session. 7.25: Stories of the Mining Fields. The Gippsland Goldfields—Mr. Chas. Daley. 7.40: The Herald news service. Cable news service (Copyright Australian Press Association and Sun-Herald News Service, Ltd.). 7.45: Wandering Round the

World, The Colored Republic—Mr. H. J. G. Esmond. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: The National Broadcasting Orchestra—Overture, "Carmen" (Bizet). 8.10: A.B.C. Gleesingers—Chorus, "Anvil Chorus," from "Il Trovatore" (Verdi), Aria, "Bols Epals" (Lully), Aria, "My Heart is Weary" (Thomas), Quartette, "Rigoletto" (Verdi), Orchestral Interlude, Aria, "Prize Song," from "The Meistersingers" (Wagner), Aria, "Waltz Song," from "Romeo and Juliet" (Gounod), Duet, "The Moon Hath Raised," from "The Lily of Killarney" (Benedict), Sextette from "Lucia di Lammermoor" (Donizetti). 8.55: Description of motor cycling events, at the Motordrome. 9.10: Herbert Dunstan, baritone, champion vocalist at recent South Street competitions—"Out Where the Big Ships Go" (Hewitt), "Old Clothes and Fine Clothes" (Cramer). 9.17: National Broadcasting Orchestra—"In a Persian Garden" (Ketelbey). 9.25: Freda Treweck, winner of the mezzo-soprano solo at the recent South Street competitions—"A Night in May" (Brahms), "Woodland Thoughts" (Franz). 9.32: National Broadcasting Orchestra—Operas of Offenbach. 9.42: Description of events at the Motordrome. 10.0: Frederick Whitlock, entertainer—Character studies, "Sairey Gamp," "Urial Heep." 10.7: Herbert Dunstan, baritone—"King Charles" (White), "When Song is Sweet" (Sans Souci). 10.14: Description of events at the Motordrome. 10.30: British official wireless news. Meteorological information. Late sporting results. Items of interest. 10.35: Paul Jeacle and His Band—Popular dance music. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 481 Metres).

MORNING SESSION.

8.15 to 11.0: As usual.

MIDDAY SESSION.

12.0 to 3.0: As usual.

THE RADIO MATINEE.

3.1: Paul Jeacle and his band—"I'm Just in the Mood To-night" (Leslie), "The Hollow of a Hill." 3.6: Lella Blight, soprano—"Wake Up" (Phillips), "A Fella with Mamma's Eyes" (Gordon). 3.13: Horrie Sheehan, trumpet—Selected. 3.17: Herbert Dunstan, baritone, champion vocalist at the recent South Street competitions—"Pass Every Man" (Sanderson), "Cloze Props" (Charles). 3.24: Paul Jeacle and His Band—"It's Unanimous Now" (Green), "An Elephant Can't Say Can't" (Abbott). 3.30: Etta Bernard, contralto—Two songs of the Hebrides (Fraser), "Kishmul's Galley," "An Eriskay Love Lilt." 3.37: William Bell, mouth organ—"The Anvil Chorus," "Moonlight and Roses." 3.42: One-act Play—"Little White Lies" (produced by Catherine Nell). Characters: She, Catherine Nell; He, Gerald Lascelles. 3.57: Guy Stavordale, banjo—Selected. 4.1: Lella Blight, soprano—"The Shepherd's Dance" (Sanderson), "I Love You Truly" (Bond). 4.2: Paul Jeacle and His Band—"Blue Idol" (Fraser), "That's My Idea of Heaven" (Whitting). 4.14: Herbert Dunstan, baritone—"Captain Mac" (Sanderson), "The Adjutant" (Fisher). 4.21: Piano number by an absent artist. 4.25: William Bell, mouth organ—"Passed By Your Window," "In an Old Fashioned Town." 4.32: Paul Jeacle and His Band—"Here We Are" (Kahn), "Round Evening" (Coote). 4.38: Etta Bernard, contralto—"Melange in the Wood" (Goetz), "Little Beauty" (Idel Regol). 4.45: Bob Libbis, trombone—Selected. 4.50: Paul Jeacle and His Band—"My Sugar and Me" (Palmer), "The Gold Diggers of Broadway" (Burke), "Love Thrills" (Meyer). 5.0: Chimes. 5.1: Musical reproduction. 5.30: Weather. 5.45: Close down.

EVENING SESSION.

6.15: Dinner music, supplied by the Studio Light Orchestra. 7.30: What's on the Air To-night? 7.32: Sporting results. 7.40: Latest musical releases. 8.0: P.O. chimes.

NIGHT SESSION.

8.0: The Versatile Four Male Quartette—"Big City Blues," "The Song of Songs." 8.6: Elsie Westcott, violin—"Serenata" (Moskowsky), "Swing Song" (Ethel Barnes). 8.13: "Anson," the Fiddling Jester—In Mirth, Melody, and Music. 8.23: Marion Lightfoot, English Concertina—"Intermezzo" (Mascagni), "Somewhere a Voice is Calling" (Marshall). 8.29: Dorothy Brown, contralto—"A Summer Night" (Thomas), "The Valley of Laughter" (Sanderson). 8.36: Coburg City Band—Overture, "Cosifantuzzi" (Mozart). 8.44: The Versatile Four Male Quartette—"My Angeline." Selected. 8.50: Syncopated piano number by an absent artist. 8.56: "The Cheer Up Society." Brightness sets in—the Saturday night feeling takes charge, and we make merry. Humor. Harmony. Happiness. 9.26: Coburg City Band—Ballet music from "Coppelia" (Delibes). 9.36: Dorothy Brown, contralto—"The Sands of Dee" (Clay), "Carissima" (Penn). 9.43: Marion Lightfoot, Steel Guitar—Waltz. "Momi." "Comin' through the Rye." 9.49: "Anson," the Fiddling Jester—In Mirth, Melody, and Music. 9.56: Elsie Westcott, violin—"On Wings of Song" (Mendelssohn), "Souvenir" (Drda). 10.3: Weather information and "Herald" news.

Cable news service (copyright Australian Press Association and "Sun," "Herald" News Service, Ltd.). 10.13: Coburg City Band—Descriptive: "A Motor Trip."

10.23: The Versatile Four Male Quartette—"Lady Chlo." Selected. 10.30: Coburg City Band—Cornet Solo: "Silver Threads Among the Gold." 10.35: Howard King, baritone—"The Horn" (Plegler), "Sacrament." 10.42: A.B.C. String Quartette—Movement from "Quartette XVI. (Mozart)." 10.52: J. Howard King, baritone—"Drake Goes West" (Sanderson), "My Lodging in the Cellar Here" (Traditional). 11.0: Rex Dance Band. 12.0: God Save the King.

4QQ

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

EARLY MORNING SESSION.

7.15 to 8.30: See Friday.

AFTERNOON SESSION.

3.0 to 4.30: See Friday.

EARLY EVENING SESSION.

6.0: Bi-weekly news service. 6.30: Bedtime stories, conducted by "Uncle Ben." 7.0: To-day's race results in detail. 7.20: General sporting notes. 7.30: Galling notes by Mr. Fred Smith.

NIGHT SESSION.

8.0: Mixed Octette (conductor, Mr. Sydney May)—Chorus, "Nobody Knows the Trouble I've Seen," Jack Atkinson (baritone)—"A Song of the Sea" (Charles), Ruth Tregertha (soprano)—"The Waggle Taggle Gipsies," Vera Parker (contralto)—"Who Knows" (Ball), Mixed Octette—Chorus, "O Peaceful Night" (German), W. L. Burch (bass)—"Giva Night" (Stubman), A. Wurhlizer organ record. Jack Lund (tenor) and Jack Atkinson (baritone)—Vocal duet, "Love and War" (Cooke), Jill Mannery (soprano)—"The Vales of Arcady" (Gheel), Ladies' Chorus—"Near an Ancient Hostelery" (Richardson), John Steele (tenor)—"The Bonnie Lass of Ballockmyle" (Jackson). 9.0: Metropolitan weather forecast. Note: At suitable times during the evening the two semi-finals and the final of the main race at the Davies Park Speedway will be described in the running. Mixed Octette—"Solemn Night" (Button), Mary L. Spanjer (contralto)—"A Request" (Flinden), Ruth Tregertha (soprano)—"Green Broom," Nance Hicks (soprano) and Mary Spanjer (contralto)—Vocal duet, "Sing Me to Sleep" (Green), Jack Lund (tenor)—"Awake" (Pellissier), Another Wurhlizer organ record, Nance Hicks (soprano)—"Spring's Awakening" (Sanderson), Male Chorus—"Zitti Zitti" (Verdi), John Steele (tenor)—"Now Sleeps the Crimson Petal" (Gauler), Vera Parker (contralto)—"Listening" (Parker), Mixed Octette—"A Cycle of Old English Ballads." 10.0: News. Weather.

5CL

Central Broadcasters, Ltd., 111 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

AFTERNOON SESSION.

12.0: Selections for to-day's races at Epsom. 12.3: Probable starters and favorites for the Melbourne Cup. 12.15: News; weather. 12.45: Recordings. 1.0: Player piano session. 1.15: Cheltenham; riders and positions for Yudnapinna Hurdle Race. 1.30: Running description of Yudnapinna Hurdle Race by Afr. Arnold Treloar. 1.35: Recordings. 2.0: Epsom race results. 2.10: Cheltenham—Running description of Netley Two-year-old. 2.35: Cheltenham—Riders and position for Struan Handicap. 2.50: Running description of Struan Handicap. 3.0: Epsom race result. 3.15: Cheltenham—Riders and positions for Corinthian. 3.30: Running description of Corinthian Bracelet. 3.55: Riders and positions for Redan Welter. 4.1: Resume of Epsom race results. 4.2: Player piano session. 4.10: Running description of Redan Welter. 4.35: Riders and positions for Willippa Flying Handicap. 4.50: Running description of Willippa Flying Handicap. 4.55: Resume of Epsom and Port Adelaide race results. 5.0: Close.

EVENING SESSION.

6.0: Resume of race results. 6.2: Children's birthday greetings and correspondence. 6.15: Request numbers. 6.30: Dinner session. 7.1: Senior Birthday League greetings. 7.5: G. E. Hale, B. G. Riley on "What Emerson Taught." 7.25: Mr. C. G. Riley on "Items of Interest." 7.40: Sporting service, including a resume of Port Adelaide and Epsom race results; rowing, yachting, cricket, and tennis results; country sporting results.

NIGHT SESSION.

8.0: Programme review. 8.10: A special programme has been arranged. 8.30: Sporting service. 10.45: Dance recordings. 11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

Day sessions as usual (see Friday). During the afternoon complete resume of race meeting, sporting fixtures, and Inter-State races.

EVENING SESSION.—8.0: Chimes. 8.1: Weather. At intervals during the evening musical reproduction and motor-cycle events broadcast from Speedway meet at Claremont Show Ground. 10.0: Weather. 10.7: Dance Band. 10.59: Weather. 11.0: Chimes.

(7ZL will be found on Page

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RADIO CHAIN STORES

29 ROYAL ARCADE, SYDNEY

Local Programmes, Sunday, November 24

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength 451 Metres).

THE CHURCH HOUR—10 a.m. to 12.30 p.m.

- 10.0: Announcements.
 10.5: Studio Music.
 10.30: This morning's news from the "Sunday Sun," "Sunday Times," and "Truth"; British Official Wireless News.
 10.45: Musical items.
 11.0: FROM ST. JOHN'S CHURCH OF ENGLAND, BALMAIN: Morning service conducted by Rev. A. G. Rix. Organist and Choirmaster, Herbert Sheppard. Organ Voluntary, "Meditation" (Keaton). Hymn. Exhortation, Confession, and Absolution. Lord's Prayer. Responses (Tallis). Venite and Psalms 133 and 134. First Lesson. Te Deum (Maunder in B Flat). Second Lesson. Benedictus (Chanted to Barnby). Creed, Responses, and Prayers. Anthem, "Sweet is Thy Mercy, Lord" (Barnby). Soloist, Miss Annie Payne. Prayers and Notices. Hymn before Sermon. Sermon, Rev. A. G. Rix. Contralto Solo, Miss Lorna Vallance. Hymn. Benediction.
 12.15: Studio music.
 12.30: CLOSE.

AFTERNOON CONCERT—3 p.m. to 4.30 p.m.

- 3.0: FROM THE MANLY BAND ROTUNDA, MANLY BEACH: THE MANLY MUNICIPAL BAND. Conducted by J. Pheloung. March, "Hero of the Game" (Cobb). Hymn. Overture, "Masaniello" (Auber). Oriental Intermezzo, "In a Persian Market" (Kettelbey). "Un Ballo In Maschero" (Verdi). FROM THE STUDIO: Studio Music. FROM THE BAND ROTUNDA, MANLY BEACH: The Manly Municipal Band—Selection, "Sunny" (Kern). Waltz, "Des Sleurs" (Tschaikowsky). Foxtrot, "Down Among the Sugar Cane" (Tobias). March, "Hall of Fame" (Allen).
 4.30: CLOSE.

EVENING PROGRAMME—6 to 10.30 p.m.

- 6.0: THE MANKEY TRIO, Instrumentalists.
 (a) Three Dances, "Nell Gwyn" (German).
 1. Country Dance.
 2. Pastoral Dance.
 3. Merry-makers Dance.
 (b) "Berceuse" (Ilynski).
 (c) "Mazurkarusse" (Glinka).
 6.15: JOHN WARREN, Tenor—
 (a) "Duna" (McGill).
 (b) "Sacrament."
 6.22: THE MANKEY TRIO—
 (a) "Nocturne" (Chopin).
 (b) "Romance" (Rubinstein).
 6.30: AN ADDRESS BY THE REV. A. P. CAMPBELL.
 6.50: JOHN WARREN, Tenor—
 (a) "Sally Horner."
 (b) "She is Far from the Land" (Lambert).
 6.57: FROM THE LYCEUM HALL. Evening service from the Central Methodist Mission, conducted by Rev. H. C. Foreman, M.A. Organist, Miss Constance Bardsley, L.T.C.L. Choirmaster, Mr. V. W. Peterson, B.A. B.E. Anthem, "O Gladsome Light" (Sullivan). Introit, "Jesu Stand Among Us." Invocation. Hymn 106, "Jesu Lover of My Soul." Lesson, Isaiah, Chap. 55. Duet, "Love Morn" (Stainer), Daisy Tollis and Frank Forrest. Prayer. Offering and Anthem, "Hallelujah," from "Mount of Olives" (Beethoven). Hymn 286, "Jesus Calls us O'er the Tumult." Sermon, "The Christ Way," Rev. H. C. Foreman.

- Hymn 910, "Sun of My Soul." Benediction and Vesper.
 8.30: FROM THE STUDIO: STUDIO CONCERT PROGRAMME, arranged by Horace Keats, Conductor of the National Broadcasting Orchestra—
 Quintette for Piano, 2 Violins, Viola, and 'Cello (Bridge).
 Piano, Horace Keats.
 Violin, Dulcie Blair.
 Violin, Vincent Aspey.
 Viola, Marjorie Hinley.
 'Cello, Muriel Lang.
 Songs, Miss Le Brun Brown.
 (a) "A Widow Bird Sate Mourning" (Bantock).
 (b) "To Sing in Winter" (Howell).
 (c) "Never the Time and the Place" (Bantock).
 "1st Movement of Octet" (Schubert)
 Clarinet, Clive Amadio.
 Horn, Laurance Toole.
 Bassoon, H. Samols.
 Violin, Dulcie Blair.
 Violin, Vincent Aspey.
 Viola, Marjorie Hinley.
 'Cello, Muriel Lang.
 Bass, Louis Blitz.
 9.0: THE COUNTRY MAN'S WEATHER SESSION—
 (a) New South Wales forecasts.
 (b) Interstate weather synopsis.
 (c) Yachtsman's and fisherman's forecast.
 SECOND HALF OF PROGRAMME arranged by HORACE KEATS.
 The Compositions in this part of the Programme consist entirely of Albert Kettelbey numbers.
 Suite, "A Cockney Suite" (Kettelbey).
 1. "A State Procession."
 2. "A Cockney Lover."
 3. "At the Palais de Danse."
 4. "Elegy."
 5. "A Bank Holiday."
 Song, Frank Botham.
 Overture, "Chal Romano" (Kettelbey).
 Song, Frank Botham.
 "Will You Forgive" (Kettelbey).
 Tone Picture, "By the Blue Hawaiian Waters" (Kettelbey).
 Meditation, "The Sanctuary of the Heart" (Kettelbey).
 Finale, "In a Persian Market" (Kettelbey).
 10.30: CLOSE.
 NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 333 Metres).

MIDDAY SESSION—10.55 a.m. to 3 p.m.

- 10.55: Announcements.
 11.0: FROM ST. STEPHEN'S CHURCH: Morning Service, conducted by REV. HUGH PATON—
 Organist—Mr. Harry Chandler. M.A. Doxology. Invocation. Hymn 1.
 Lesson: Isaiah 45.
 Prayer.
 Psalm 103—1-10.
 Lesson: Matthew 2.
 Young People's Portion.
 Prayer.
 Hymn 585.
 Sermon: "God Hiding Himself."
 Text: Isaiah 45-15.
 Prayer.
 Hymn 193.
 Benediction.
 12.15: FROM THE STUDIO: Musical Items.
 12.30: News from the "Sunday Sun," "Sunday Times," and "Truth."
 12.38: A Specially Arranged Programme of Instrumental Music.
 2.15: "Cheer-up" Session, conducted by Uncle Frank.
 2.45: Austradio Musical Reproduction.
 3.0: Close Down.

LATE AFTERNOON—4.30 to 6 p.m.

- 4.30: FROM THE ARCADIA THEATRE. CHATSWOOD—
 Organ Recital by Nicholas Robins.
 4.45: ROBERT SCOTT, Tenor—
 (a) "Adelaide" (Beethoven).
 (b) "Serenade" (Schubert).

- 4.52: FROM THE ARCADIA THEATRE. CHATSWOOD—
 Organ Recital by Nicholas Robins.
 5.7: C. N. BAEYERTZ continues his series, "Philosophic Thought from Bacon to Bergson."
 5.27: FROM THE ARCADIA THEATRE. CHATSWOOD—
 Organ Recital by Nicholas Robins.
 5.42: ROBERT SCOTT, Tenor—
 (a) "Eleanor" (Coleridge-Taylor).
 (b) "A Brooklet" (Schubert).
 5.49: FROM THE ARCADIA THEATRE. CHATSWOOD—
 Organ Recital by Nicholas Robins.
 EVENING SESSION—6 to 10 p.m.
 6.0: For Children in Hospital Session, conducted by Uncle Steve, and assisted by Aunt Goodie and Cousin Marjorie.
 6.50: FROM THE PETERSHAM CONGREGATIONAL CHURCH—
 Organ Recital by AMBROSE GIBBS:
 (a) "Light Cavalry" Overture (Suppe).
 (b) "Egyptian Ballet" (Luigini), by request.
 (c) "Gems from 'The Messiah' Oratorio" (Handel).
 7.0: FROM PETERSHAM CONGREGATIONAL CHURCH—
 Evening Service conducted by Rev. A. P. Doran—
 Invocation and Lord's Prayer.
 Hymn, "Before Church's Throne."
 Psalm.
 Solo, MISS ASHTON.
 Lesson.
 Hymn, "I Need Thee."
 Prayer.
 Anthem, "King All Glorious." Soloist, Mr. A. BOARD.
 Hymn, "Nearer, My God, to Thee."
 Sermon.
 Hymn, "Guide Me, Thou Great Jehovah."
 Benediction.
 8.30: FROM THE STUDIO—
 Weather Information for the Man on the Land.
 8.35: RELAY FROM 3AR MELBOURNE.
 10.0: NATIONAL ANTHEM. CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 9.0: Address by Miss Mary Rivett, "That Far-off Divine Event." 9.30: Address by Mr. Victor E. Cromer, "The Trusteeship of Wealth." 10.0: Music from Studio. 10.15: Organ music from St. Alban's Church, Regent Street, Sydney. 10.30: Morning service from St. Alban's Church. 12 (noon): Music from Studio. 12.30: Close down. 3.0: Musical session. 5.30: Children's session by Uncle George. 7.0: Lecture from St. Alban's Church. 7.35: Lecture from Adyar House. 8.15: Sacred concert; Mr. Gregory Valentine, violinist. 8.23: Miss Elsie Peerless, soprano. 8.30: Mr. Cecil Chaseling, baritone. 8.37: Miss Ada Brook, pianist. 8.45: Miss Florence Gordon, contralto. 8.52: Mr. Gregory Valentine, violinist. 9.0: Weather report. 9.1: Miss Elsie Peerless, soprano. 9.8: Mr. Cecil Chaseling, baritone. 9.15: Miss Ada Brook, pianist. 9.23: Miss Florence Gordon, contralto. 9.30: Address by Mr. Victor E. Cromer, "Health—Individual and Collective." 9.45: Close down.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra. Sydney (Wavelength, 293 Metres).

MIDDAY SESSION.

- 11.0: Mass, from St. Mary's Cathedral.
 12.20: Studio announcements.
 12.23: Orchestral selections.
 1.0: Close down.

EVENING SESSION.

- 5.45: Music from Catholic studio.
 5.50: Instruction, by Rev. Father T. Walsh, S.J.
 6.15: Music from Radio House.
 6.20: "Question Box" Talks, arranged by Dr. L. Rumble, M.S.C.
 7.0: Evening Devotions, from St. Mary's Cathedral.
 8.15: Music.
 8.20: Overture, "Bohemian Girl" selections.
 8.30: Instrumental music.
 9.0: Clock and chimes.
 9.1: Orchestral and vocal selections.
 10.15: National Anthem.

Interstate Programmes, Sun., Nov. 24

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

MORNING SESSION.

10.0: Time signal. 10.1: Musical reproduction. 10.20: Express train information. British official wireless news. Items of interest. 10.30: Bells of St. Paul's Cathedral. 10.45: Morning Service from St. Paul's Cathedral, Melbourne.—Matins (Choral), and Intercession, Te Deum and Benedictus (Harwood in A Flat). Anthem: "Remember Now Thy Creator" (Stegall). Preacher: Archdeacon Lambie. 12.30: Close down.

AFTERNOON SESSION.

3.0: Pleasant Sunday Afternoon, from Wesley Church Central Mission (Conducted by Rev. J. H. Cain). Soloist, Miss Muriel Cheek. 4.30: Close down.

THE CHILDREN'S CORNER.

6.0: "Brother Bill"; "The Mouthorgan Man." "Plain Peter."

EVENING SESSION.

7.0: Pietro Sarcoll, violin—"Sonata in D Major" (Corelli-Pinelli). 7.10: The Beauty Spots of Australasia—Mr. L. S. Bruce. 7.25: Mabel Nelson, piano—"A Chopin Programme." "Etude in C Sharp Minor." "Three Etudes in Polonaise in E Major." 7.35: The Digger—Brig-Gen. Scott. 7.50: Pietro Sarcoll, violin—"Largo" (Veracini-Cortli). "Gavotte" (Bach-Kreisler).

NIGHT SESSION.

8.0: Prahran City Band (Conductor: Percy Jones)—"Al Vario." "Eventide." 8.10: Madoline Knight, contralto—"Three Fishers Went Sailing" (Hullah). "Only the River Running By" (Hopkins). 8.17: Tomaso Cerbasi, Harp—"Nearer My God to Thee." "Marchetta." 8.25: The Regal Male Quartette—"Spin, Spin" (Old Swedish). "Lend Your Ear" (Old English). "Pretty Maid" (Madrigal). 8.32: Prahran City Band—Cornet solo, "Silver Threads Among the Gold" (Danks). Part Song, "Sweet and Low" (Barnby). 8.38: Eiford Mack, Cello—"Sonata" (Rubinstein). 8.48: Saffo Arnay, Soprano—"Chason Indoue" (Bemberg), with cello obbligato by Eiford Mack; "A Blackbird's Song" (Cyril Scott). 8.55: Henri Penn, piano—"Sonata" (Rachmaninoff). 9.05: Saffo Arnay, Soprano—"Covent Garden" (William James). "Dawn Song" (William James). 9.32: Eiford Mack, Cello—"Air" (Bach). "Scherzo" (Von Coens). "The Trusting Place" (MacDowell). 9.42: The Harmonists Male Quartette—"Robit Adair." "The Land of the Leal." 9.50: Prahran City Band—Selection, "La Traviata" (Verdi). 9.58: Madoline Knight, Contralto—Two Negro Spirituals: "Carry Me 'Long." "I Want to Be Ready." 10.5: Tomaso Cerbasi, Harp—Selection of Irish airs, "Calmena." 10.10: The Harmonists Male Quartette—"Travelling to the Grave" (Negro Spiritual). "The Lost Chord" (Sullivan). 10.17: Prahran City Band—Selected. 10.22: British official wireless news. Meteorological information. Items of interest. 10.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION

11.0: Service from Scots Church, Collins Street, Melbourne. Sermon: Rev. Dr. W. Borland. Subject: "Born from Above."

MIDDAY SESSION

12.30: A studio programme of specially selected reproduced music. 2.0: Frank Lanterman at the Wurliizer with assisting artists. 3.0: Close down.

AFTERNOON SESSION

4.30: Prelude to "Khovantchina" (Rimsky-Korsakov)—Minneapolis Symphony Orchestra. 4.34: "Caro Nome." from "Rigoletto" (Verdi)—Mary Ivogun, soprano. 4.38: "Quartette in G Minor" (Debussy). New York String Quartette. 4.56: "La Ci Darem in Mano." Rosa Raisa and Giacomo Rimini. 5.0: "Polonaise in A Flat" (Chopin). "March Militaire" (Schubert). Godowski, piano. 5.8: "Oh, Promise Me" (De Koven). Marie Morrisey, contralto. 5.11: "Canzonette" (Tschakowsky). Albert Spalding, violin. 5.15: "La Dove Prende." from "The Magic Flute" (Mozart). Rosa Raisa and Giacomo Rimini. 5.19: "Melodrama" (Guilardi). Minneapolis Symphony Orchestra. 5.23: "Cradle Song" (M'Fadden). Marie Morrisey, contralto. 5.27: Piano recital. 5.33: "The Week's Good Cause. The work of the Victorian Ladies' Benevolent Society. Mrs. J. H. Hewison, O.B.E. 5.45: "Tales from Old Vienna" (Strauss). New York Philharmonic Orchestra. 5.49: "Largo," from "Xerxes" (Handel). Elizabeth Reberg, soprano. 5.53: "Scari Dance." Godowski, piano. 5.57: "Hallelujah Chorus" (Handel), with orchestral accompaniment. 6.0: Service from the Salvation Army Gill Memorial Home, conducted by Commissioner Whatmore. Order of Service—Song, "Albion, Shining Up For Jesus." Prayer. Brigadier Winton. Chorus: "Carry Me Back to Dear Sweet Calvary." Song, "Inmates of the Home, Bible Reading, Mrs. Commissioner Whatmore. Solo, Colonel Mackey. Address, Commissioner Whatmore.

EVENING SESSION

7.0: Service from Wesley Church, Lonsdale Street, Melbourne. Sermon: Rev. Irving Benson.

NIGHT SESSION

8.30: Dorian Trio—"Waltz in G Minor" (Carse). Scherzo in B Minor" (Pescia). 8.40: Gladys M'Dowell, contralto—"Se Tu M'ammi" (De Pesche). "Lascia Chio Planga" (Handel). 8.47: Organ recital by Frank Lanterman. 8.57: Talk on well-known hymns—J. Howlett Ross. Illustrated by Wesley Church Choir.

9.20: Dorian Trio—"Menuetto" (Beethoven). "Song of the Mountains" (Grig). "Rondo" (Mozart). 9.30: Wesley Church Choir. Conductor, William G. James—two unaccompanied hymns—"Blessed and Ever Glorious Lord" (Tschakowsky). "Holy Blessed Trinity."

9.36: Helen Hamerton, violin—"Allegro" from "Concerto in E Major" (Bach).

9.46: Gladys M'Dowell, contralto—"Rose Softly Blooming" (Spohr). "Linden Lea" (Williams).

9.53: Dorian Trio—Selected.

9.58: Weather.

10.0: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 383 Metres).

MORNING SESSION.

11.0: St. Andrew's Presbyterian Church, morning service. 12.15: Close.

AFTERNOON SESSION.

3.15: Band concert. 4.30: Close.

EARLY EVENING SESSION.

6.0: A session for little listeners.

NIGHT SESSION.

7.0: St. Andrew's Presbyterian Church—Children's service.

7.30: Evening service. At the conclusion of the church service the concert by the Brisbane Municipal Concert Band will be relayed from Wickham Park.

9.30: Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

MORNING SESSION.

10.45: Carillon of bells from the Adelaide Town Hall. 11.0: Service from Maughan Methodist Church, Minister, Rev. Samuel Forsyth; organist, Mr. M. Finlay. 12.10: Close.

AFTERNOON SESSION.

3.0: A Pleasant Sunday Afternoon Service from Glenelg Congregational Church. 4.0: Close.

EVENING SESSION.

8.0: Chimes. 8.1: Children's birthday greetings. 8.45: Church choir numbers. 7.1: Senior Birthday League greetings. 7.2: Service from St. Bartholomew's Church, Norwood. Minister, Archdeacon Moyes; organist, Mr. Frank Bowden.

NIGHT SESSION

8.20: Announcements.

8.30: Frank Roberts, Wurliizer organist—"First Valse" (Durand). "Bris de l'ete" (Sanderson).

8.38: Lady vocalist (winner of 5CL Radio Vocal Championship).

8.45: Hilda Reimann (violinist)—"Swedish Melody" (Wilhelmj). "Mazurka" (Wieniawski).

8.52: The Madrigal Singers—"Angels that Around Us Hover." "The Sea Hath Its Pearls."

9.0: Bessie Francis (elocutionist).

9.5: Frank Roberts (Wurliizer organist)—"Waters of Minnetonka." "Funiculi Funicula."

9.13: Gentleman vocalist (winner of 5CL Radio Vocal Championship).

9.20: Hilda Reimann (violinist)—"Slow Movement from Concerto" (Mendelssohn).

9.27: The Madrigal Singers—"Soldiers' Chorus" from "Faust." "Love is Meant to Make Us Glad."

9.34: Bessie Francis and P. H. Nicholas in a Long-fellow Interlude.

9.5: News.

10.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

MORNING SESSION—10.40: Sporting résumé.

10.50: News. 11.0: Church service, St. George's Cathedral. 12.30: Musical reproduction. 1.0: Close.

AFTERNOON SESSION—3.0: Chimes. 3.31: Musical reproduction. 4.55: Features of this evening's programme. 9.0: Close.

EVENING SESSION—6.30: Children's Session, conducted by Mr. H. J. Foreman. 7.15: Temperance Talk to Younger Set by Mr. Dent. 7.30: Church service, Baptist Church. 8.45: Special musicale, arranged by Edith Howell, broadcast from the Ambassadors' Theatre, including assisting artists: Ambassadors' Orchestra, Les. Waldron at the console of the grand organ, Bertha Warren (soprano), Norman Trehaman (baritone). 10.30: Close down. "God Save the King."

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 516 Metres).

Saturday, November 23

11.30 a.m.: Record recital. 11.34: Midlands weather forecast. 11.35: Record recital. 11.55: Tasmanian stations 9 a.m.: weather forecast. 12.1: Shipping, mail notices, Housewives' Guide. 12.2: Record recital. 12.30: News: announcements. 12.40: Record recital. 1.5: Railway auction sales. 1.10: Record recital. 1.30: Close down. 3.0: Transmission from the North Hobart Oval, cricket match, A Grade, South v. North-west, described by Sid Jones. 3.10: All sporting results to hand. 5.15: Close. 6.10: Sporting. 6.25: Children's Corner with "Uncle David." 7.10: Recorded music. 7.40: "Critos" will speak on "A Game of Bridge." 7.50: J. M. Counsel will speak on "European Affairs." 8.0: Chimes. 8.1: Record recital. 8.15: A request programme of popular records, supplied by Paton's Music Warehouse. 10.20: Close.

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Local Programmes, Monday, November 25

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0 "Big Ben" and meteorological information for the man on the land.
7.3: This morning's news from the "Daily Guardian."
7.8: Austradio Musical Reproduction.
7.45: Mails and shipping.
7.48: What's on to-day?
7.50: Children's birthday calls.
8.0: Music from the Studio
8.15: Close.

MORNING SESSION—10.30 to 12.30.

- 10.30: Announcements.
10.32: A.B.C. Racing Observer.
10.45: HORACE WEBER at the GRAND ORGAN.
11.0: HOUSEHOLD HELPS—Cooking, by Miss Ruth Furst.
11.10: CABLES (copyright), A.P.A. and "Sun-Herald" news service.
11.15: MORNING DEVOTION—From 11.30 to 12.30 the programme will be transmitted from the Radio Show, 1929, from the State Shopping Block.
11.30: Austradio Musical Reproduction.
11.53: British Official Wireless News.
12.0: "Big Ben," Stock Exchange, and metal quotations.
12.5: V. C. BELL will speak from "The Public Forum."
12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board.
12.30: Close.

THE LUNCH HOUR AND AFTERNOON SESSION.

- 1.0: Lunch hour music.
1.55: A glance at the afternoon "News"
2.0: Stock Exchange, second call.
2.2: From THE SYDNEY CRICKET GROUND, description of the international cricket match, England v. N.S.W. in play.
4.0: From the STUDIO—HORACE KEATS, Pianist—
(a) "Minuet" (Lemmons)
(b) "Fascination" (Lemmons).
(c) "Spring Time."
4.7: THE 2FC INSTRUMENTAL TRIO.
4.21: HORACE KEATS, Pianist—
(a) "A Spring Morn" (De Groen).
(b) "Nocturne in G Flat" (Lardelli).
(c) "Serenade" (Schubert, transcribed Leroy).
4.28: Stock Exchange, third call.
4.30: Close.

EARLY EVENING SESSION—5.45 to 7.55.

- 5.45: Children's "Goodnight" Stories, told by the "Hello Man," assisted by Aunt Eily.
6.45: Dinner hour music.
7.20: A.B.C. sporting service.
7.25: Special country session; Stock Exchange resume; markets; weather forecast; late news from the "News;" truck bookings
7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30.

- As a set-off against 2FC's programme, which is always on classic lines on a Monday night, 2BL offers popular band selections, and to-night there is an unusual touch in the "Something Different," which Goodie Reeve has prepared.
8.0: LEONORE GOTSCH, Soprano.
8.7: ALEXANDER HMELNITZKI, Pianist—
(a) "Prelude, Op. 23, No. 6" (Rachmaninoff).
(b) "Prelude, Op. 23, No. 9" (Rachmaninoff).
(c) "Etude-Tableaux, Op. 23, No. 4" (Rachmaninoff).
8.19: THE NATIONAL BROADCASTING ORCHESTRA—
(a) "Italians in Algiers" (Rossini).
(b) "Virginia" (Haydn Wood).
8.34: OLIVER KING, Bass—
(a) "Vittoria, Vittoria" (Carissimi).
(b) "The Linden Tree" (Schubert).
8.41: DULCIE BLAIR, Violinist—
"Allegro" from "Sonata in F," "Spring" (Beethoven).
8.48: THE NATIONAL BROADCASTING ORCHESTRA—
(a) "Le Lac des Cygnes" (Tchaikowsky).
(b) "Pierrot and Pierrette" (Vescey).

9.0: THE COUNTRY MAN'S WEATHER SESSION—

- (a) New South Wales forecasts.
(b) Interstate weather synopsis.
Yachtsman and Fisherman's forecast.
9.2: STEELE RUDD will tell of "Rainbow."
9.17: LEONORE GOTSCH, Soprano.
9.24: ALEXANDER HMELNITZKI, Pianist—
"Rigoletto Paraphrase de Concert" (Liszt).
9.36: OLIVER KING, Bass—
(a) "The Summer Day is Dying" (Hill).
(b) "The Island" (Rachmaninoff).
9.45: DULCIE BLAIR, Violinist—
(a) "Romance" (Svensden).
(b) "Schon Rosmarin" (Kreisler).
9.50: THE NATIONAL BROADCASTING ORCHESTRA—
(a) "Minstrel Song" (Frederiksen).
(b) "Sheep and Goat" (Guion).
(c) Ballet music, "Prince Igor" (Borodin).
10.5: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Synco-paters.
10.15: FROM THE STUDIO—Announcements and late official weather forecast.
10.20: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Synco-paters.
11.30: CLOSE. "NATIONAL ANTHEM."

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 358 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. Chimes and Announcements.
8.16: Music for every Mood.
8.40: Meteorological data for the country.
8.45: Mails and Shipping Information.
8.50: Memory Melodies.
9.0: This Morning's Story.
9.30: A Musical Interlude.
9.40: British Official Wireless Press.
9.45: New Music.
10.5: News from the "Daily Guardian."
10.10: Austradio Musical Reproduction.
10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION—Conducted by Miss Gwen Varley.
11.0: G.P.O. Chimes. Close Down.
MIDDAY SESSION—12 to 2.30 p.m.
12.0: FROM THE SYDNEY CRICKET GROUND: Description of the Match, ENGLAND v. NEW SOUTH WALES.
1.15: FROM THE STUDIO: MISS PROCTOR will speak on "Color in Relation to Health."
1.30: Austradio Musical Reproduction.
2.0: J. KNIGHT BARNETT at the "Wurlitzer."
2.12: Studio Music.

AFTERNOON ENTERTAINMENT—2.30 to 6 p.m.

- 2.30: AUSTRADIO MUSICAL REPRODUCTION.
3.0: DURING THE AFTERNOON ITEMS WILL BE TRANSMITTED FROM THE RADIO SHOW, 1929, FROM THE STATE SHOPPING BLOCK.
3.0: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Synco-paters, in Dance Music.
3.12: FROM THE STUDIO: MARJORIE COLE, Soprano—
(a) "Everywhere I Look" (Carew).
(b) "My Desire" (Cadman).
3.19: A Modern Number.
3.22: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Synco-paters, in Dance Music.
3.32: FROM THE STUDIO: MARJORIE COLE, Soprano—
(a) "Your Eyes" (Rabey).
(b) "Chanson Indoue" (Rimsky-Korsakov).
3.39: A MELODY MEMORY.
3.42: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Synco-paters, in Dance Music.
3.52: FROM THE STUDIO: MODERN MUSIC.
4.0: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Synco-paters, in Dance Music.
4.15: FROM THE SYDNEY CRICKET GROUND: Description of the Match, ENGLAND v. NEW SOUTH WALES.
6.0: G.P.O. Chimes. Close Down.
THE DINNER HOUR—6.15 to 7.55 p.m.
6.15: DINNER QUARTET.

6.45: BOYS' AERO CLUB, conducted by Mr. Norman Lyons.

- 7.5: The Country Man's Market Session—Wool, Wheat, Stock, Farm Produce, Fruit, and Vegetable Markets.
7.20: DINNER MUSIC.
7.45: Austradio Musical Reproduction.
7.55: What's on the air to-night?
TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

Monday night is "Band Night" through 2BL, and listeners have expressed their appreciation of this innovation into the weekly routine. The New South Wales Tramway Band is appearing to-night, and the Four Black Troubadours will amuse in English song and story; an intriguing "Something Different" will be contributed by Goodie Reeve.

- 8.0: NEW SOUTH WALES TRAMWAY BAND—
Fantasia: "Pantomania" (Williams).
8.15: 2BL'S WEEKLY SOUND FILM FEATURE.
8.32 NEW SOUTH WALES TRAMWAY BAND—
(a) Foxtrot, "Misery Farm."
(b) Foxtrot, "Fun and Frolic" (Rose).
8.42: THE FOUR BLACK TROUBADOURS in song and story.
9.2: NEW SOUTH WALES TRAMWAY BAND—
(a) Selection, "Dinorah" (Meyerbeer).
(b) March, "Gardes Du Corps" (Hall).
9.17: GOODIE REEVE in "SOMETHING DIFFERENT."
9.32: Weather Information for the Man on the Land.
9.42: NEW SOUTH WALES TRAMWAY BAND—
(a) Overture, "Bohemian Girl" (Bafle).
(b) Waltz, "Lolita" (Lithgow).
9.57: THE FOUR BLACK TROUBADOURS, in song and story.
10.17: A MUSICAL ITEM.
10.25: Late news from the "Evening News." Late Weather Forecast.
10.30: NATIONAL ANTHEM.
CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 2.0 to 3.30, 5.15 to 8.0, as usual.
5.15: Children's session by Uncle George.
7.0: Music. 7.35: Feature story. 8.0: OLD-TIME PROGRAMME. 8.7: Symphony Orchestra. 8.15: Mr. Leslie Herford, baritone. 8.22: Violin solos. 8.30: Mr. Jack Win and Mr. Heath Burdock, humor. 8.35: Miss Dorothy Stacey, soprano. 8.45: Address. 9.0: Weather report. 9.1: Band selection. 9.10: Miss Grace Saville, contralto. 9.20: Mr. Heath Burdock, recital. 9.30: Mr. Leslie Herford, baritone. 9.40: Violin solos. 9.50: Miss Dorothy Stacey, soprano. 10.0: Instrumental music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Faling's Building, Ash St., Sydney (Wavelength, 267 Metres).

- MIDDAY SESSION, 12.30 to 4.30; EVENING SESSION, 5.30 to 8.0, as usual.
7.45 p.m.: Radio talk by Mr. E. Homfray. 8.0: Wagnerian recital. 9.0: Comments on foreign affairs by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

- MORNING SESSION, 10.0 to 12.0.
CHILDREN'S SESSION, 6 p.m.
EVENING SESSION. 7.0: Musical Inter-lude. 7.15: Dance music. 7.30: A talk on Gardening. Mr. G. L. GELLATLY. 7.45: Militant Women's Group. 8.0: Overture. 8.8: Tenor solos. 8.15: Dance music. 8.30: Request numbers. 8.45: Soprano solos. MISS WRIGHT. 9.0: Novelty interludes. 9.10: Selection of latest Parlophone, Columbia, Regal, Brunswick, and Golden Tongue records. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

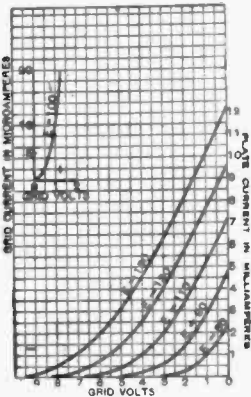
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Interstate Programmes, Monday, November 25

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: As usual.

MORNING SESSION.

10.30 to 12.30: As usual.

MIDDAY SESSION.

1.0 to 1.30: As usual.

EDUCATIONAL SESSION.

2.0: The Earth We Live On—Mr. W. C. Groves, B.A., Dip.Ed. 2.20: Science in Everyday Life—Dr. Loftus Hills, D.Sc. 2.40: Our Australian Writers—Mr. F. Wilmut.

VARIETY MATINEE.

3.0: Paul Jeacle and His Band—"My Sugar and Me" (Palmer), "Love Thrills" (Meyer). 3.6: K. Atken, and his Piano-Accordion. 3.14: Paul Jeacle, Saxophone-Selected. 3.18: Mae Seaton, Soubrette—"Cream of My Coffee" (De Sylva), "Don't Hold Everything" (De Sylva) (with orchestral accompaniment). 3.25: Paul Jeacle and His Band—"It's a Wonderful World After All" (Davis), "Pork and Beans" (Beebe). 3.31: Etta Bernard, Contralto—"Knowest Thou the Land" (Hengel) (Thomas), "The Silver Ring" (Chaminade). 3.38: Guy Stavordale, Banjo-Selected. 3.42: A Comedy Sketch, "Motoring Without Tears" by A. Finch. H. Maurice Dudley, She, Mrs. Maurice Dudley. 3.52: Paul Jeacle and His Band—"Dream of Love and You" (Taylor), "Lonely Little Bluebird" (Woods). 3.58: Bruce Wile, Flute-Selected. 4.3: Mae Seaton, Soubrette—"There's Four Little Clovers" (Wending), "Mother's Boy" (Green). 4.9: K. Atken, and His Piano-Accordion. 4.15: Bob Adams, Trumpet-Selected. 4.19: Etta Bernard, Contralto—"Lament of Isis" (Bantock), "By the Waters of Minnetonka" (Lieurance). 4.26: Paul Jeacle and His Band—"By the Lake" (Lange), "Oh, Lizzie" (Bibo). 4.30: Close down.

THE CHILDREN'S CORNER.

5.45: "Humpty and Dumpty".

EVENING SESSION.

6.35: Melody broadcast. 6.40: Public School Life and Sport—Mr. E. C. H. Taylor. 7.0: Time signal. 7.1: Countryman's Session. 7.25: The latest in patents. 7.40: News. 7.55: The World's Kaleidoscope—Prof. K. H. Bailey, M.A., B.C.L.

AN HOUR OF VARIETY.

8.0: Coburg City Band (Conductor: T. B. Davison). Fantasia, "The Old Rustic Bridge." 8.4: Norman Christensen, Tenor—"Wait" ("Hurdell"), "Sylvain" (Slindig). 8.15: "The Tailors' Revue Company present—Society Tit-bits of Songs, Skits, and Sketches. Half-an-hour of Delightful Drooleries. 8.40: Coburg City Band-Selection, "Pirates of Benzene" (Sullivan). 8.50: Norman Christensen, Tenor—"Inter Nos" (MacPadyen), "A Farewell" (Liddle). 8.57: Royal Victorian Liedertafel. (Conductor: J. Sutton Crow, Pianist: Lindsay Higgins). Transmitted from Athenaeum Hall, Collins Street. Part Song, "Vikings' Song" (Coleridge Taylor); unaccompanied part songs, "O. Peaceful Night" (German); part song, "The Frogs' Cantata" (Hennig); unaccompanied part songs, (a) "All the Things That are" (Antonie Green), (b) "Farewell Thou Lovely Forest Glade" (Marschner); part song, "The Sword of Ferrara" (Bullard). 9.27: An Afternoon Bridge Party, described by Hattie Knight. 9.30: Half an hour with Schubert.—Coburg City Band—"The Unfinished Symphony" (Schubert). 9.50: "Under the Linden Tree," an incident in the life of Schubert, specially written for radio by Gordon Ireland. 10.20: Coburg City Band—Fox-trot, "Only a Vagabond Loner" (Zimmerman); march, "La Belle Perceze" (Hume). 10.28: British official wireless news. Meteorological information. Items of interest. 10.28: Paul Jeacle and His Band—Song and Synco-pation. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION

8.15 to 11.0: See 3LO today.

MIDDAY SESSION

12.0: Chimes. 12.1: Food and Cookery, Health and Summer Drinks—Mrs. Kathleen Beningsford. 12.15: Fifteen Minutes Synco-pation. 12.30: Luncheon music. 2.0: Chimes.

AFTERNOON SESSION

2.1: Orchestral—A. and P. Gypsies Orchestra. 2.3: Baritone—Michael Bohnen. 2.6: Hawaiian music—Randolph's Royal Hawaiians. 2.9: Comedian—Ed Smalle. 2.12: Orchestral—The Clevelanders Orchestra. 2.15: Soubrette—Esther Walker. 2.18: Band—New York Police Band. 2.21: Baritone—Michael Bohnen. 2.24: Piano—Victor Lane. 2.30: Contralto—Sigrid Oengin. 2.36: Comedian—Ed. Smalle. 2.39: Hawaiian music—Randolph's Royal Hawaiians. 2.42: Soubrette—Esther Walker. 2.45: Band—New York Police Band. 2.48: Contralto—Sigrid Oengin. 2.51: Novelty Band—The Jungle Band. 2.54: Soprano—Grace Moore. 2.57: Band—Walter B. Rogers Band. 3.0: Request numbers. 3.20: Art in modern life—Miss Stephanie Taylor. 3.35: Musical interlude. 3.40: Your garden—The Fascination of Hydrising—Mrs. Antonie. 3.35: Musical interlude. 4.0: Wanderings through Southern India—Miss Stella Parker. 4.15: Musical reproduction. 5.0: Chimes. 5.1: Musical reproduction. 5.30: Weather. 5.35: Close down.

EVENING SESSION

6.15: Dinner music. 7.30: What's on the Air To-

night? 7.32: Sporting results. 7.35: Latest musical releases.

NIGHT SESSION

7.45: Transmission from Albany, "Around Pacific Cruise" of San Francisco Chamber of Commerce—Speeches from dinner given by Alderman A. Waucho, Mayor of Albany, to passengers from the American s.s. "Molo" on a "Reso" tour through the Commonwealth. 8.48: Paul Jeacle and His Band—"Egyptian Echoes" (Black), "Lonely Little Bluebird" (Woods). 8.51: Elsie Stewart, soubrette—"Round Evening" (Stainer), "Who is He" (Tobias). 8.57: Horrie Sheehan, trumpet—Selected. 9.0: Joseph Poster, baritone—"Nita Gitana" (Newton), "Kashmiri Song" (Woodford-Pinden). 9.1: Paul Jeacle and His Band—"Speech" (Clare), "Oh, My Operation" (McDonald). 9.14: The Laughing Philosopher looks at life. 9.23: William Bell, mouth organ—"Then You'll Remember Me" (De Sylva), "Shamrock." 9.35: Elsie Stewart, soubrette—"Meet the Boy Friend" (Tobias), "There'll be You and I" (Green). 9.41: Paul Jeacle and His Band—"Do Something" (Green), "My Sugar and My Spoons" (Davies). 9.48: Joseph Poster, baritone—"A Castilian Lament" (Del Riego), "To-morrow" (Keel). 9.55: Guy Stavordale, banjo—Selected. 10.0: Weather information and "Herald" news. Cable news service (copyright "Sun" and "Herald" News Service, Ltd., and Australian Press Association). 10.10: Paul Jeacle and His Band—"Carmen Capers" (Black), "My Sugar and My Spoons" (Palmer). 10.16: William Bell, mouth organ—"The Choristers" "Lay My Head Beneath a Rose." 10.22: Paul Jeacle and His Band—"By the Waters of Minnetonka" (Lieurance), "Stamped" (Henderson). 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual.

7.45: Lecture—"The Children's Music Corner," conducted by "The Music Man."

NIGHT SESSION.

8.0: Flute Trio (conductor, Stefan de Polotynski)—"Trio" (Kummer). 8.10: Doris McInnes (soprano)—"Rosetime" (O'Hagan). 8.14: Flute Trio—"Dance of the Flutes" (Tschukowski). 8.15: Helen McGregor Robertson (elocutionist)—"The Grebung Polo Club" (Patterson). 8.24: L. Sheridan (baritone)—"A Romany Croon" (Martin). 8.28: Flute Trio—"Menuet" (Bocherini). 8.32: Walter Land (tenor)—"Ruby of the East" (Alevik). 8.36: Flute Trio—"Berceuse" (Robkof), "Music Box" (Lladoff). 8.43: Kylie McAlister and Co.—A short sketch. 8.50: Metropolitan weather forecast. 9.1: The Rhythm Rascals—Entertainers. 9.10: "Tecom" will deliver the seventh talk in connection with 4QG's Home Garden Scheme—"Some Popular Flowers, and How to Grow Them." 9.20: Doris McInnes (soprano)—"She Wandered Down the Mountain Side" (Clay). 9.25: The Rhythm Rascals—Entertainers. 9.35: Walter Land (tenor)—"Dear Love, Remember Me" (Marshall). 9.39: Helen McGregor Robertson (elocutionist)—"The Riding of the Rebel." 9.43: L. Sheridan (baritone)—"A Banjo Song" (Hegner). 9.50: The Rhythm Rascals—Entertainers. 10.0: News. Weather. 10.10: The Rhythm Rascals—Dance music. 10.30: Close.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

MORNING SESSION.

During the day descriptions of the cricket match, South Australia v. Queensland, will be given. 11.15 to 2.0 (see Friday).

AFTERNOON SESSION.

3.0 to 4.30 (see Friday).

EVENING SESSION.

6.10 to 7.0 (see Friday). 7.10: Mr. L. B. Clark, lecturer on Dairying, Roseworthy College. 7.30: The 2CL Twinkler Boys' Club.

NIGHT SESSION.

8.0: The most popular musical roll of the week. 8.10: Walter Barratt and his Maison Masters of Melody—"I Can't Give You Anything but Love" (Davis), "I'm Bringing a Red, Red Rose" (Donaldson), "That's You, Baby" (Conrad). 8.20: Gentleman vocalist (winner of 5CL Radio Vocal Championship). 8.24: Walter Barratt and his Maison Masters of Melody—"The Savvy American Melody" (Somers), "If You Want the Rainbow You Must Have the Rain" (Davis), "Caroline Moon" (Davis). 8.34: Lady vocalist (winner of 5CL Radio Vocal Championship). 8.38: Walter Barratt and his Maison Masters of Melody—"Lizzy Azzzy Wozzy" (Le Clerq), "A Little Dickie Bird Told Me So" (Gilbert), "Ten Little Miles from Town" (Conrad). 8.48: Gentleman vocalist (winner of the 5CL Radio Vocal Championship). 8.52: Walter Barratt and his Maison Masters of Melody—"I Kiss You in Little Hand, Madam" (Irwin), "Misery Farm" (Wallace). 9.0: Meteorological information, including Semaphore tides. 9.2: Overseas grain report. 9.3: Announcements.

9.5: Walter Barratt and his Maison Masters of Melody—"Rigolotto Rigoles," a rhythmic classic on the Quartette from "Rigolotto," "Blue Hawaii" (Baer); "Toymaker's Dream" (Golden). 9.15: Lady vocalist (winner of the 5CL Radio Vocal Championship). 9.18: Walter Barratt and his Maison Masters of Melody—"Wedding of the Painted Doll" (Brown), "Sunny" (Swan), "The Sun is at My Window" (Lewis). 9.28: Gentleman vocalist (winner of the 5CL Radio Vocal Championship). 9.33: Walter Barratt and his Maison Masters of Melody—"That's What Put the Sweet in Home, Sweet Home" (Louring), "I'll Inevitably be in Love With You," "The Breakaway" (Conrad). 9.43: Lady vocalist (winner of the 5CL Radio Vocal Championship).

9.47: Ron Le Cornu (xylophonist), Walter Barratt and his Maison Masters of Melody—"Broadway Melody" (Brown), "You Were Meant For Me" (Brown). 10.0: Gentleman vocalist (winner of the 5CL Radio Vocal Championship). 10.4: Walter Barratt and his Maison Masters of Melody—Request numbers. 10.11: Lady vocalist (winner of the 5CL Radio Vocal Championship). 10.15: News; weather; sporting, including interstate cricket scores, South Australia v. Queensland. 10.30: Request numbers. 11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

Day sessions as usual (see Friday).

EVENING SESSION.—8.0: Chimes. 8.1: Weather. 8.2: The Specialty Four. 9.0: Weather. 9.1: Announcements. 9.3: Talk by Basil Kirts, "Blackbirding in the South Seas." 9.18: Zlata Kalmikoff, cellist. 9.28: David Lyle, tenor. 9.36: Zlata Kalmikoff, cellist. 9.44: David Lyle, tenor. 9.51: Announcements. 10.0: Weather. 10.5: Dance Band. 11.0: Close.

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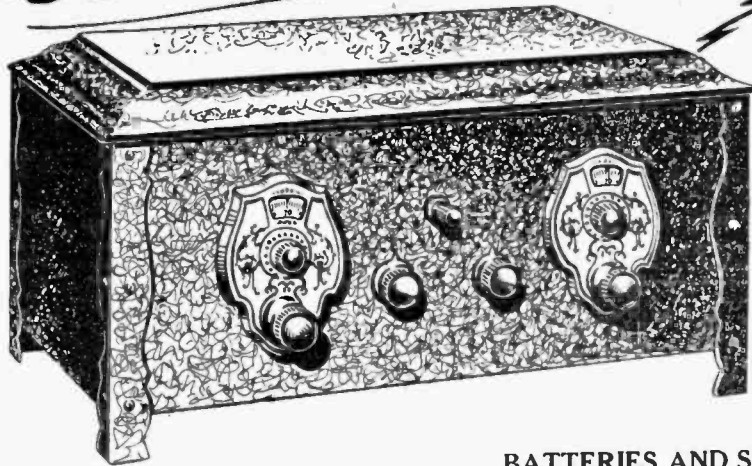
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ADDRESS

Local Programmes, Tuesday, November 26

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the main on the land.
- 7.3: This morning's news from the "Daily Guardian."
- 7.4: Austradio Musical Reproduction.
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's Birthday Calls.
- 8.0: Music from the Studio.
- 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30

- 10.30: Announcements.
 - 10.32: A.B.C. Racing Observer.
 - 10.45: HORACE WEBER at the GRAND ORGAN.
 - 11.0: HOUSEHOLD HELPS: Hints to Housewives by Miss Ruth Furst.
 - 11.10: CABLES (Copyright), A.P.A. and "Sun-Herald" News Service.
 - 11.15: MORNING DEVOTION.
- FROM 11.30 to 12.30 the Programme will be transmitted from the Radio Show, 1929, from the State Shopping Block.
- 11.31: Austradio Musical Reproduction.
 - 11.53: British Official Wireless Press.
 - 12.0: "Big Ben"; Stock Exchange, and Metal Quotations.
 - 12.1: Illustrated Music Lecturette, Roy Acnew.
 - 12.20: Midday weather forecast and weather synopsis. Special produce market session for the men on the land, supplied by the State Marketing Board.
 - 12.30: CLOSE.

THE LUNCH HOUR and AFTERNOON SESSION.

- 1.0: Lunch Hour Music.
- 1.55: A Glance at the afternoon "News."
- 2.0: Stock Exchange, second call.
- 2.2: FROM THE SYDNEY CRICKET GROUND. Description of the International Cricket Match, Eng and v. N.S.W. in play. NOTE—Race results from Gosford will be transmitted as received.
- 4.0: FROM THE STUDIO: THE 2FC INSTRUMENTAL TRIO.
- 4.28: Stock Exchange, third call.
- 4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55

- 5.45: Children's "Goodnight" Stories told by Aunt Willa, assisted by Cousins Gwen and Marie.
- 6.45: Dinner Hour Music.
- 7.20: A.B.C. Sporting Service.
- 7.25: Special Country Session. Stock Exchange Resume, Markets, Weather Forecast. Late news from the "News," Truck Bookings.
- 7.58: To-night's Programme.

THE EVENING PRESENTATION—8 to 11.30

- Tuesday's usual State-wide Radio Dance Night is being held to-night, and in contrast 2BL offers a Concert Programme from the Music Room of the S.S. Malolo, which reached Sydney on her round Pacific cruise yesterday. The ship's Orchestra will be the feature of the evening's entertainment.
- 8.0: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
 - 8.12: 2FC WEEKLY SOUND FILM FEATURE.
 - 8.20: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
 - 8.32: RENE RICH, Violinist—
 - (a) "Serenade" (Toselli).
 - (b) "There's a Rainbow Round My Shoulder" (Jolson).
 - 8.39: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
 - 8.51: HARRISON WHITE, Banjo Solos—
 - (a) March "Invercargill" (Lithgow, arr. White).
 - (b) "The Bomshee" (Grimshaw).
 - 8.58: THE COUNTRY MAN'S WEATHER SESSION.
 - (a) New South Wales forecasts.
 - (b) Interstate weather synopsis.
 - 9.0: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
 - 9.12: WALLY BAYNES, Comedian.
 - 9.19: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
 - 9.31: RENE RICH, Violinist—

- (a) "Annie Laurie Fantasie" (Harris).
- (b) "That's You, Baby" (Conrad).
- 9.38: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 9.50: HARRISON WHITE, Banjo Solos—
 - (a) March "The Jolly Coppersmith" (Peter, arr. White).
 - (b) Selection "Fireside Memories" (arr. White).
- 9.58: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 10.10: WALLY BAYNES, Comedian.
- 10.15: Announcements. Late Official Weather Forecast.
- 10.20: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 11.30: CLOSE.
- NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 333 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
- 8.16: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Mails and shipping information.
- 8.50: Memory melodies.
- 9.0: This morning's story.
- 9.30: A musical interlude.
- 9.40: British official wireless press.
- 9.45: New music.
- 10.2: News from the "Labor Daily."
- 10.5: News from the "Daily Guardian."
- 10.10: Austradio musical reproduction.
- 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.
- 11.0: G.P.O. chimes. Close down.

MIDDAY SESSION—12 to 2.30 p.m.

- 12.0: FROM THE SYDNEY CRICKET GROUND—Description of the match, ENGLAND v. NEW SOUTH WALES.
- 1.15: FROM THE STUDIO—A talk on "Electric Appliances," prepared by M. H. Ellis.
- 1.30: Austradio musical reproduction.
- 2.0: J. KNIGHT BARNETT at the Wurlitzer.
- 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 6 p.m.

- 2.30: AUSTRADIO MUSICAL REPRODUCTION.
- DURING THE AFTERNOON ITEMS WILL BE TRANSMITTED FROM THE RADIO SHOW, 1929, FROM THE STATE SHOPPING BLOCK.
- 3.0: MODERN MUSIC.
 - 3.12: GENE ROSS, soprano—
 - (a) "The Cuckoo Clock" (Shaefer).
 - (b) "The Cloths of Heaven" (Dunhill).
 - 3.19: KATHLEEN JULIAN, violinist—"Walter's Prize Song" (Wagner)
 - 3.26: DANCE MUSIC.
 - 3.36: ANNE STUART GURR, mezzo—Two Maori Songs:
 - (a) "Waiata Maori" (Alfrid Hill).
 - (b) "Waiata Poi" (Alfrid Hill).
 - 3.43: KATHLEEN JULIAN, violinist—
 - (a) "The Bee" (Schubert).
 - (b) "Siciliano and Rigaudon" (Francoeur-Kreisler).
 - 3.50: GENE ROSS, soprano—
 - (a) "The Lass With the Delicate Air" (Arne)
 - (b) "Voi Che Sapete" (Mozart).
 - 3.57: RADIO RHYTHM.
 - 4.15: FROM THE SYDNEY CRICKET GROUND—Description of the match, ENGLAND v. NEW SOUTH WALES.
 - 6.0: G.P.O. Chimes. Close down.
 - THE DINNER HOUR—6.15 to 7.55 p.m.
 - 6.15: DINNER QUARTET.
 - 6.45: THE GIRL GUIDES' CLUB, conducted by Miss Gwen Varley.
 - 7.5: The Country Man's Market Session—Wool, wheat, stock, farm produce, fruit, vegetable, and pig markets.
 - 7.20: DINNER MUSIC.
 - 7.45: Austradio musical reproduction.
 - 7.55: What's on the air to-night?
- TO-NIGHT'S PRESENTATION—8 to 10.30
- 2BL's programme to-night is on classical lines, but we are not broadcasting from the Studio. The S.S. Malolo, on her round Pacific cruise, reached Sydney yesterday, and this evening we are giving a concert

programme from the music-room of the vessel. The ship's orchestra, which consists of ten musicians, including four Hawaiians, will be a feature of the evening's entertainment. Special Hawaiian music and songs will be contributed. Through 2FC the State-wide Radio Dance Night will attract many listeners.

- 6.0: FROM THE MUSIC-ROOM OF THE S.S. MALOLO—THE MALOLO CONCERT ORCHESTRA.
- 6.10: ALFRED CUNNINGHAM, baritone—
 - (a) "For You Alone" (Geehl).
 - (b) "Toreador's Song," from "Carmen" (Bizet).
- 6.17: MALOLO CONCERT ORCHESTRA.
- 6.27: CHARLES LAWRENCE, entertainer—
 - (a) "All About Love" (Grey).
 - (b) "The Art of Song Writing."
- 6.44: GLADSTONE BELL, cellist—"Serenade" (Squire).
- 6.52: THE MALOLO CONCERT ORCHESTRA.
- 7.2: CONSTANCE BURT, soprano—"Non Je Ne Veux Pas Chanter" (Nicola Isourd).
- 6.9: THE MALOLO CONCERT ORCHESTRA.
- 6.19: ALFRED CUNNINGHAM, baritone—
 - (a) "Chorus, Gentlemen!" (Lohr).
 - (b) "Cockles and Mussels" (Irish ditty).
- 6.26: GLADSTONE BELL, cellist—"Dito," Spanish Dance (Popper).
- 6.36: THE MALOLO CONCERT ORCHESTRA.
- 6.46: CONSTANCE BURT, soprano—
 - (a) "I Know Where I'm Goin'" (Old Irish).
 - (b) "Lass With the Delicate Air" (Arne).
- 6.53: THE MALOLO CONCERT ORCHESTRA.
- 10.0: FROM THE STUDIO—V. C. BELL will speak on "Pessimist."
- 10.15: AUSTRADIO MUSICAL REPRODUCTION.
- 10.25: Late news from the "Evening News" and announcements.
- 10.30: NATIONAL ANTHEM. CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 2.0 to 3.30, 5.15 to 8.0, as usual.
- 8.0: Miss Heather Kinnaird, contralto.
- 8.7: Symphony Orchestra.
- 8.15: Mr. Cecil Houghton, tenor.
- 8.22: Instrumental Trio.
- 8.30: Mr. Jack Win and Mr. Heath Burdock, humor.
- 8.35: Miss Gladys Verona, soprano.
- 8.42: Symphony Orchestra.
- 9.0: Weather report.
- 9.2: Address.
- 9.15: Instrumental Trio.
- 9.25: Mr. Cecil Houghton, tenor.
- 9.35: Mr. Jack Win and Mr. Heath Burdock, humor.
- 9.40: Symphony Orchestra.
- 9.50: Miss Gladys Verona, soprano.
- 10.0: Instrumental music.
- 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

- MIDDAY SESSION, 12.30 to 4.30; EVENING SESSION, 5.30 to 8.0, as usual.
- 8 p.m.: Recital of songs by Toti dal Monte.
- 9.0: Comments on foreign affairs by Mr. J. M. Prentice.
- 9.10: Music and request numbers.
- 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 520 Metres).

- MORNING SESSION, 10.0 to 12.0.
- CHILDREN'S SESSION, 6 p.m.
- EVENING SESSION: 7.0: Musical interlude.
- 7.15: SPORTING FEATURE—Turf toics, how they should run to-morrow.
- Mr. GEO. A. DAVIS. 7.45: Request numbers.
- 8.0: Orchestral selections.
- 8.10: Women's Information Service, Mrs. GRAY. 8.25: Baritone solos. Mr. HIGGINS. 8.33: Pianoforte solos. Mr. HANCOCK. 8.40: Music and request numbers from the Studio; SPORTING FEATURE, from the ringside of Mr. Hugh's Leichhardt Stadium, results of early events and full description of 15 rounds event. 8.50: Dance music from the Studio. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

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NOTICE!!

Interstate Programmes, Tues., Nov. 26

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: As usual.

MORNING SESSION.

10.30 to 12.30: As usual.

MIDDAY SESSION.

1.0 to 1.15: As usual.

EDUCATIONAL SESSION.

During the afternoon results of the Kilmore races will be broadcast as they come to hand. 2.0: Stories from the Operas. 2.20: Romance of the Slave and Gold Coasts—Mr. A. A. Downs. 2.40: A Talk in French—Mons. Th. Rouel, P.A.

THE RADIO MATINEE.

3.0: The Studio Light Orchestra—"Ballet Russe" (Lughini). 3.8: Alban Whitehead, Baritone—"Passing By" (Puccini). "A Pleading" (Tchaikowsky). 3.15: Victor Stephensen, Piano—"Menuetto in B Minor" (Schubert). "Waltz in A Major" (Liszt). "Gnomon Reigen" (Liszt). 3.25: Beatrice Oakley, Soprano—"Oft of the Night" (Atkinson). "Ring the Merry Marriage Bell" (Atkinson). 3.32: Some Comedy. Norm Bland and Partner—Almost Gentlemen—will entertain. 3.42: The Studio Light Orchestra—Selections from "Hit the Deck" (Youmans). 3.52: Alban Whitehead, Baritone—Selections from his repertoire. 3.58: Victor Stephensen, Piano—"Allegro di Concierto" (Granados). 4.4: Beatrice Oakley, Soprano—"Meadowsweet" (Brahm), selected. 4.11: The Studio Light Orchestra—"The Pagan Love Song" (Brown). 4.16: More Comedy. Norm Bland and Partner—Almost Gentlemen—will entertain. 4.24: The Studio Light Orchestra—Selection from musical comedy. 4.30: Close down.

THE CHILDREN'S CORNER.

5.45: "Retor and Orce." "Clever Charlie."
EVENING SESSION.
 6.35: Melody broadcast. 6.40: Boy Scout Doling—Mr. F. Sanders. 7.0: Time signal. 7.1: Countryman's Session. 7.25: For the Man on the Land—Grading and Packing Soil. 7.30: Mr. B. P. Krone. 7.40: News. 7.45: Public Finance in Australia—Taxation and Production—Prof. D. B. Copland, M.A., D.Sc. (under the auspices of the University Extension Board). 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: Half an hour with the Masters. National Broadcasting Orchestra—Overture. "Tannhauser" (Wagner).
 8.10: Alban Whitehead, Baritone—"She Alone Charmeth My Sadness" (Gounod).
 8.17: Louis Hattenbach, Cello—"Abendlied" (Schumann). "Lullaby." "Moment Musical" (Schubert). "Tarantella" (Cossmann).
 8.30: Opening of the Grand Opera Choral Contest. Organised by the Australian Choral Association, in conjunction with 3LO.
 9.0: Songs and Comedy. A Christy Minstrel Show, including the old-fashioned "Bonys," "Tambo," and interocular. Solos, duos, and quartettes, octettes, and general ensemble. Produced for radio, by F. Clarke Cottrell.
 10.0: Paul Jeacle and His Band—Novelty number.
 10.8: Alban Whitehead, Baritone—Just a Cottage Small" (Hanley). "Mate o' Mine" (Ellin).
 10.15: National Broadcasting Orchestra—Selection from "No. No. Nanette" (Youmans).
 10.25: News session.
 10.35: Paul Jeacle and His Band.
 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION

8.15 to 11.0: See Friday.

MIDDAY SESSION

12.0 to 2.0: See Friday.

AFTERNOON SESSION

2.1: Instrumental—"The Rose Trio." 2.8: Soprano—Lotte Lehmann. 2.12: Piano—Karl Szreter. 2.20: Tenor—Richard Tauber. 2.24: Strings—String Quartette. 2.32: Quartette—All Star Four Quartette. 2.35: Band music—Massed Military Bands. 2.38: Comedian—Sophie Tucker. 2.40: Piano—Rale da Costa. 2.44: Band music—Massed Military Bands. 2.47: Quartette—All Star Four Quartette. 2.50: Orchestral—Dajos Bela Orchestra. 2.55: Piano—Victor Lane. 3.0: Request numbers. 3.20: The Baby. Feeding—Sister Anne Purcell. 3.35: Musical interlude. 3.40: Useful Crafts at Home: Christmas Presents—Mrs. Henrietta Walker. 3.55: The Latest Fashions: Madame La Mode Traders' Demonstration Session. 4.15: Musical reproduction. 5.0: Chimes. 5.1: Musical reproduction. 5.30: Weather. 5.35: Close down.

EVENING SESSION

6.15: Dinner music with the stars on the Air Tonight? 7.32: Sporting results. 7.35: Latest musical releases. 8.0: Chimes.

NIGHT SESSION

8.1: Fifteen minutes with the storyteller.
 8.15: Brunswick City Band—Fantasia. "The Maid of Orleans."
 8.25: Melbourne Male Quartette—"The Wee Little House" (O'Hara). "Scots Wha Hae."
 8.31: Billie King, Songs at the Piano—"The One that I love Loves Me." Selected.
 8.38: Robert Allen, alto—"Macushia" (M'Murrigh). "Red Devon by the Sea."
 8.45: Brunswick City Band—Selection. "National Airs."
 8.55: Dramatic sketch, "Reunited." Characters: Captain Vane, John Hopkins, Helen Vane, Mrs. John Hopkins. Scene: A sitting room in a railway hotel at Southampton.
 9.10: Brunswick City Band—"Comrades in Arms" (Adam).
 9.18: Melbourne Male Quartette—"In the Morning Light" (Beethoven). "Robin Adair" (Old Scotch).

9.24: Billie King, Songs at the Piano—"Hittin' the Ceiling." Selected.
 9.30: Wilson Muir, entertainer—"Punchinello."
 9.42: Brunswick City Band—Cornet solo. "The Cornet King."
 9.45: A Mystery Story—"The Tattooed Hands." J. Howlett Ross.
 10.0: Weather information and "Herald" news. Cable News Service (copyright "Sun" "Herald" News Service, Ltd., and Australian Press Association).
 10.10: Brunswick City Band—Selection. "Boccaccio."
 10.18: Melbourne Male Quartette—"The Song I Love" (Conrad). "The More We Are Apart" (Holt).
 10.24: Brunswick City Band—March. "The Flying Squad."
 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual. 7.0: An Astronomy Talk—"Pegasus and His Neighbors." by Mr. A. K. Chapman. 7.45: Lecture—"A Talk on Photography." by Mr. F. L. South (manager Kodaks, Ltd.).

NIGHT SESSION.

Songs of the Bells.
 8.0: Robt. Tate (pianist)—"Blue Bells of Scotland" (with variations).
 8.4: J. P. Cornwell (bass)—"Bells of the Sea" (Solman).
 8.5: Double Male Quartette (conductor, Tom Muller)—"Bells of St. Michael's Tower."
 8.14: The Studio Orchestra—"Weymouth Chimes."
 8.17: C. Rice (tenor)—"Bells of St. Mary's" (accompanying by Double Male Quartette).
 8.22: Tom Muller (elocutionist)—Monologue. "Christmas Bells."
 8.25: Double Male Quartette—Sea chanty. "Eight Bells" (Songs of the Sea).

Items which have been requested in previous nautical programmes, and for which requests have been received, will comprise the second portion of tonight's programme.

8.30: The Studio Orchestra—A Nautical Medley.
 8.36: Double Male Quartette—Hymns, "Fierce Raged the Tempest." "Star of Peace."
 8.44: Harry Borradaie (elocutionist)—"Christmas at Sea" (Robt. Tate).
 8.50: J. P. Cornwell (bass)—"They All Love Jack" (Adams).
 8.54: Double Male Quartette—"Sailing." "White Wings."
 9.0: Metropolitan weather forecast.
 9.04: War Time Songs.
 9.1: The Studio Orchestra and the Double Male Quartette—musical pot-pourri, including March, "Colonel Bogey" chorus. "Tippary" solo. "Two Eyes of Grey" chorus. "Mademoiselle from Armenia."
 9.20: Double Male Quartette—"Hymns of the Old Church Choir" (soloist, George Williamson).
 9.25: James Martin (tenor)—"I Hear You Calling Me."
 9.29: The Studio Orchestra—Waltz. "Blue Danube" (Strauss).
 9.34: Double Male Quartette—"Silver Threads Among the Gold." "When the Sunset Turns the Ocean's Blue to Gold."
 9.40: C. Rice (tenor)—"Won't You Buy My Pretty Flowers."
 9.44: Ernest Harper (baritone)—"Peeka-boo."
 9.48: Double Male Quartette—"John Peel."
 9.53: The Studio Orchestra—Selection. "Looking Backwards."
 10.0: News supplied by the metropolitan dailies. Weather information. Close down.

5CL

Central Broadcasters, Ltd., 111 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

MORNING SESSION

During the day descriptions of the interstate cricket match, South Australia v. Queensland, will be given. 11.15 to 2.0 (see Friday).

AFTERNOON SESSION.

3.0 to 4.30 (see Friday).

EVENING SESSION.

6.0 to 7.0 (see Friday). 7.20: Mr. R. H. Burton. 7.35: Mr. H. Brewster-Jones on "Art Culture of Native Races." 7.45: Herbert Basedow.

NIGHT SESSION.

8.0: A request presentation of the opera, "Il Trovatore." Characters—Leonora, Marcelle, Bernardi, Antonio, Pina Felari, Count De Luna, Malcolmo Jones, Azucena, Gwen Collett, Ferranto, Fred Gust, Ines, Ann Young; Un Mezzo, Un Zingari, Bert Woolley and chorus. Explanatory remarks by Besse Francis. Music by Giuseppe Verdi.
 9.1: Meteorological information, including Semaphore tides; overseas grain report.
 9.5: Continuation of the opera, "Il Trovatore."
 10.15: News, weather, sporting (including cricket results, South Australia v. Queensland).
 10.30: Dance recordings.
 11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

Day sessions as usual (see Friday).
EVENING SESSION.—8.0: Chimes. 8.1: Weather. 8.2: Ambassador's Unit Orchestra, under direction of Bert Howell. Les Waldron, Wurrlitzer organ. 8.15: Cello recital by Zlata Kalmikoff. 8.22: Marjorie Hodgson, humorous sketch. 8.29: The Versatile Two entertainers. 8.39: Beryl Scott, entertainer at piano. 8.46: "Strange Tales of Adventure" by A. J. Dry. 9.0: Weather. 9.1: Announcements. 9.4: Marjorie Hodgson, humorous sketch. 9.11: Stage presentation from Ambassador's Theatre, under direction of Bert Howell. 9.40: Beryl Scott, entertainer at piano. 9.37: Cello recital by Zlata Kalmikoff. 9.50: Dance Band. 10.59: Weather. 11.0: Chimes.

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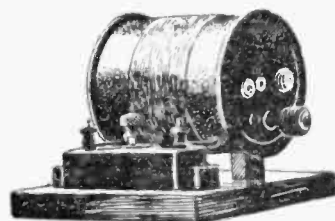
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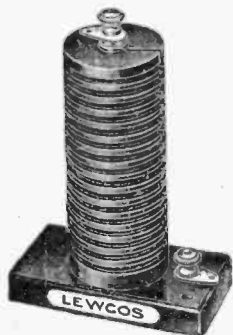
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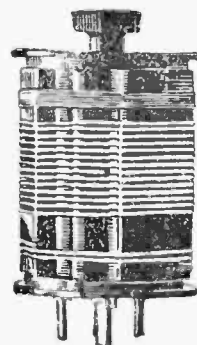
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Local Programmes, Wednesday, November 27

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 431 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Daily Guardian."
- 7.8: Austradio Musical Reproduction.
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: Close.

MORNING SESSION—10.30 to 12.30.

- 10.30: Announcements.
- 10.32: General sporting talk by Oscar Lind.
- 10.45: HORACE WEBER at THE GRAND ORGAN.
- 11.0: HOUSEHOLD HELPS—Cooking, by Miss Ruth Furst.
- 11.10: CABLES (copyright), A.P.A. and "Sun-Herald" news service.
- 11.15: MORNING DEVOTION—From 11.30 to 12.30 the programme will be transmitted from the Radio Show, 1929, from the State Shopping Block.
- 11.30: Austradio Musical Reproduction.
- 11.53: British Official Wireless Press.
- 12.0: "Big Ben;" Stock Exchange, and metal quotations.
- 12.5: C. W. MANN will continue his series, "Do You Know your Child? The Naughty Child."
- 12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board.
- 12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch hour music.
- 2.0: Stock Exchange, second call.

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SYDNEY

NEXT WEEK SPECIAL PORTABLE SET NUMBER of "Wireless Weekly" HOW TO BUILD A 4-VALVE SET TO TAKE ON VACATION.

- 2.2: A glance at the afternoon "News."
- 2.7: Studio music.
- 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

NOTE.—Race results from Rosebery will be transmitted as received.

- 2.30: Radio Rhythm.
- 2.42: BERESFORD HALLETT, Popular Vocalist—
 - (a) "Sleepy Valley" (Hanley).
 - (b) "My Mother's Eyes" (Baer).
- 2.49: PILDA CROSS, Novelty Pianist—
 - (a) "Shooting the Chutes" (Briers).
 - (b) "Dancing Shadows" (Golden).
 - (c) "Cafeteria Jangle" (Bussano).
- 2.56: A MELODY MEMORY.

3.8: BERESFORD HALLETT, Popular Vocalist—

- (a) "I Used to Love Her in the Moonlight" (Florito).
- (b) "My Dear" (Kahn)
- 3.15: MODERN MUSIC.
- 3.30: DOROTHY BENBOW, Contralto—
 - (a) "Little Brown Cottage" (Dickson).
 - (b) "Land of the Lullaby" (Browne).
- 3.37: SONGS OF TO-DAY.
- 3.47: HILDA CROSS, Novelty Pianist—
 - (a) "Rhapsody Russe" (Nussbaum).
 - (b) "Squirrel Dance" (Smith).
- 3.54: DANCE NUMBERS.
- 4.4: DOROTHY BENBOW, Contralto—
 - (a) "If I Built a World for You" (Lehmann).
 - (b) "Dreaning of Home" (Besly).

4.11: RADIO RHYTHM.

- 4.28: Stock Exchange, third call
- 4.30: Studio music.
- 4.45: CLOSE.
- EARLY EVENING SESSION—5.45 to 7.55.
- 5.45: Children's "Goodnight" Stories told by the "Hello Man," assisted by Uncle Ted and "Sandy."
- 6.45: Dinner hour music.
- 7.20: A.B.C. sporting service.
- 7.25: Special country session; Stock Exchange resume; markets; weather forecast; late news service from the "News;" truck bookings.
- 7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30.

Wednesday's 2FC feature is the overture and presentation from the State Theatre, and, in addition, to-night there is a special Rachmaninoff recital by Madame Emily Marks; also new humorous stories and song groups. Through 2BL service the programme by the Sydney Madrigal Society will be broadcast from the Conservatorium of Music.

8.0: FROM THE STATE THEATRE—The overture by the State Theatre Orchestra, conducted by Will Prior. Price Dunlavy at the Grand Organ.

8.7: FROM THE STUDIO—CHARLES NICIS, Tenor—

- (a) "Aria" (Stradella).
- (b) "Ave Maria" (Susi)

8.14: VINCENT ASPFY Violinist—

- (a) "Scherzo Tarentelle" (Wienlowski).
- (b) "Aus Wien" Viennese Melody (Gaertner).

8.21: C. N. BAEYERTZ will continue his series of "Humorous Stories in Dialect."

8.41: Madame EMILY MARKS and ENID HYNES in a recital of Rachmaninoff Songs, Madame Emily Marks—

- (a) "Lilacs."
- (b) "Morning."
- (c) "Night."

Piano solos, Enid Hynes—

- (a) "Serenade in B Flat"
- (b) "Polichinelle."

Songs—

- (a) "The Harvest of Sorrow."
- (b) "The Coming of Spring."

Piano solos—

- (a) "Melodie in E."
- (b) "Humoresque."

9.1: THE COUNTRY MAN'S WEATHER SESSION—

- (a) New South Wales forecasts.
- (b) Interstate weather synopsis.

9.3: MONA DEUTCHER, Contralto—

- (a) "To the Forest" (Tschalkowsky).
- (b) "I Came with a Song" (La Forge).
- (c) "Two Little Magpies" (Wells).

9.10: FROM THE STATE THEATRE—PRICE DUNLAVY at the GRAND ORGAN

9.30: FROM THE STUDIO—CHARLES NICIS, Tenor—

- (a) "Aria" (Stradella).
- (b) "Song, Old Italian" (Traetta).

9.37: FROM THE STATE THEATRE—The Stage Presentation.

Will Prior's State Theatre Orchestra. Price Dunlavy at the Grand Organ

9.45: FROM THE STUDIO—MONA DEUTCHER, Contralto—

- (a) "If there were Dreams to Sell" (Ireland).
- (b) "The Silver Ring" (Chaminade).
- (c) "The Scarecrow" (Davies).

9.55: VINCENT ASPFY, Violinist—

- (a) "Radesca" (Ellerton).
- (b) "On Wings of Song" (Mendelssohn).

10.0: FROM THE BALLROOM OF THE ORIENTAL, Sydney Simpson's Syncopaters in dance music.

10.15: FROM THE STUDIO—Announcements.

Late official weather forecast.

10.20: FROM THE BALLROOM OF THE ORIENTAL, Sydney Simpson's Syncopaters in dance music.

11.30: CLOSE. NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 333 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
- 8.16: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Mails and Shipping Information.
- 8.50: Memory Melodies.
- 9.0: This Morning's Story.
- 9.30: A Musical Interlude.
- 9.40: British Official Wireless Press.
- 9.45: New Music.
- 10.5: News from the "Daily Guardian."
- 10.10: Austradio Musical Reproduction.
- 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.
- 11.0: G.P.O. Chimes. Close Down.

MIDDAY SESSION—12 to 2.30 p.m.

- 12.0: G.P.O. Chimes and Announcements.
- Austradio Musical Reproduction.
- 12.30: LUNCH MUSIC.
- 1.0: Afternoon news from the "Evening News."
- 1.5: Studio Music.
- 1.15: Women's Interest Talk—GOODIE REEVE will give "Aids to Personality."
- 1.30: Austradio Musical Reproduction.
- 2.0: J. KNIGHT BARNETT at the "Wurlitzer."
- 2.12: Studio Music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: Dr. HAROLD NORRIE will speak on "Outstanding Personalities in Australian History," and his subject this afternoon will be "BURKE AND WILLS."
- 2.45: RADIO RHYTHM.
- 2.0: DURING THE AFTERNOON ITEMS WILL BE TRANSMITTED FROM THE RADIO SHOW—1929—FROM THE STATE SHOPPING BLOCK.
- 3.0: JAMES WALKER, Pianist—"Chromatic Fantasie and Fugue in D Minor" (Bach).
- 3.15: SONGS OF TO-DAY.
- 3.25: RAIMUND PECHOTSCH, Violinist—"Romance in F" (Beethoven).
- 3.32: MODERN DANCE MUSIC.

- 3.45: C. PRICE CONIGRAVE will speak on "Dirk Hartge and Shark's Bay."
- 4.0: JAMES WALKER, Pianist—
 - (a) "Bee's Wedding" (Mendelssohn).
 - (b) "Polonaise in A Flat" (Chopin).
- 4.7: MELODY MEMORIES.
- 4.17: RAIMUND PECHOTSCH, Violinist—"Caprice" (Raimund Pechotsch).
- 4.24: RADIO RHYTHM.
- 4.45: The Trade Hour—Demonstration Music.
- 5.45: Weather Information. Close Down.

- THE DINNER HOUR—6.15 to 7.55 p.m.**
- 6.15: DINNER QUARTET.
 - 6.45: THE BOYS' RADIO CLUB, conducted by Mr. Norman Lyons.
 - 7.5: The Country Man's Market Session—Wool, Wheat, Stock, Farm Produce, Fruit and Vegetable Markets.
 - 7.20: DINNER MUSIC.
 - 7.45: Austradio Musical Reproduction.
 - 7.55: What's on the air to-night?
- TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.**

The Choral Programme by the Sydney Madrigal Society to-night offers a rare treat for music lovers. Through 2FC Service there is a talk by C. N. Baeyertz, a Rachmaninoff Recital by Madame Emily Marks and Enid Hynes. Contralto solos by Mona Deutscher and 'cello solos by Muriel Lang.

8.0: FROM THE CONSERVATORIUM OF MUSIC—
CONCERT BY THE SYDNEY MADRIGAL SOCIETY—
Assisting Artists:
T. H. Kelly's Instrumental Trio.
Senia Chostiakoff, Tenor (late of the Don Cossack Choir).

9.0: FROM THE STUDIO—
Weather information for the Man on the Land.
Announcements.

9.10: FROM THE CONSERVATORIUM OF MUSIC—
CONCERT ARRANGED BY THE SYDNEY MADRIGAL SOCIETY.

10.0: FROM THE STUDIO—
GRAHAM KENT will talk on "Bridge."

10.15: A MUSICAL ITEM.

10.25: Late News from the "Evening News."
Late Weather Forecast.

10.30: NATIONAL ANTHEM. Close.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

10.0 to 11.45, 2.0 to 3.30, 5.15 to 8.0, as usual.

8.0: POPULAR PROGRAMME. Miss Mary Neal, contralto. 8.7: Band selections. 8.15: Mr. Charles Smythe, basso. 8.22: Symphony Orchestra. 8.30: Mr. Jack Win and Mr. Heath Burdock, humor. 8.35: Miss Elsie Brown, soprano. 8.42: Violin solos. 8.50: Miss Mary Neal, contralto. 9.0: Weather report. 9.3: Address. 9.15: Band selections. 9.25: Mr. Charles Smythe, basso. 9.35: Mr. Jack Win and Heath Burdock, humor. 9.40: Violin solos. 9.50: Miss Elsie Brown, soprano. 10.0: Instrumental music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION, 12.30 to 4.30; EVENING SESSION, 5.30 to 8.0, as usual.

7.45 p.m.: Talk by Mr. F. E. Buckell, "The Photo-Electric Cell and its Applications."

7.50: Music. 8.0: Violin and 'cello recital. 9.0: Comments on foreign affairs by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

MORNING SESSION, 10.0 to 12.0.
CHILDREN'S SESSION, 6 p.m.
EVENING SESSION 7.0: Musical Inter-
lude. 7.15: SPORTING FEATURE—com-
plete review of to-day's racing. Mr. GEO. A. DAVIS. 7.40: Health feature, NORTHEY DU MAURIER. 8.0: Hawaiian steel guitar selections. 8.15: AL. ROSENBERG, novelty pianist. 8.30: Banjo solos. 8.36: AL. ROSENBERG at the piano. 9.10: SPORTING FEATURE, presented by Tooth and Co., Ltd., Kent Brewery, from Sydney Stadium, full description of main 15 rounds event. 9.50: Music from the studio. 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).
Same as Friday. No afternoon session.

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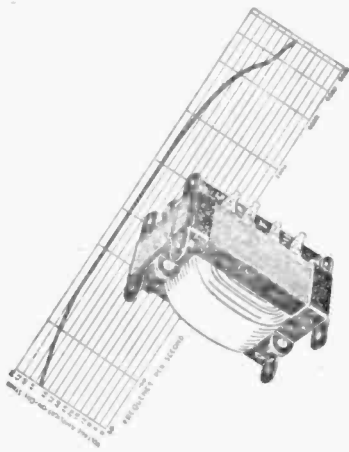
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Interstate Programmes, Wed., Nov. 27

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: As usual.

MORNING SESSION.

10.30: to 12.30: As usual.

MIDDAY SESSION.

1.0 to 1.15: As usual.

1.15: Transmission from the Rotary Club luncheon.
1.55: Description of Hurdle Race, two miles, Bendigo races, by Eric Welch. 2.5: Reading—The Censorship of the Press (John Milton)—Mr. John Coyne. 2.20: The Wonders of Nature—Mr. J. R. Kinghorn. 2.35: Description of Epsom Plate, six furlongs, Bendigo races, by Eric Welch. 2.45: News Demoscracies—Hon. J. H. Keating, LL.B. 3.0: Time signal.

THE RADIO MATINEE.

3.0: Paul Jeacle and His Band—"Breakaway" (Conrad), "That's You, Baby" (Conrad). 3.6: Ida and Lorayne Wright, Contralto and Soprano—Duets: When the Great Red Dawn is Shining (Sharpe), "Springtime" (Newson). 3.13: Description of Bendigo Cup, one mile three furlongs, by Eric Welch. 3.23: "Hale and Dale," entertainers—"A Cosy Nook" Brady, "My Fleurette." 3.30: Paul Jeacle and His Band—"Walking With Susie" (Conrad). 3.35: A Dramatic Interlude—Mrs. John Hopkins, Two Dialect Recitals—(a) "Home," (with musical accompaniment) (Guest), (b) "Cuddle Doon" (Anderson). 3.43: From Bendigo, description of Three-year-old Handicap, six furlongs, Bendigo races, by Eric Welch. 3.50: Ida and Lorayne Wright, Contralto and Soprano—"Your Eyes Have Told Me So" (Hardy), "Barcarolle" (Offenbach). 3.57: Paul Jeacle and His Band—"Pagan Love Song" (Brown), "I Wonder." 4.5: Mrs. John Hopkins—"The Tea Party" (Fowler). 4.10: Claude Jeacle, Baritone—"Come to the Fair" (Martin). 4.14: Description of President's Welter, one mile, Bendigo races, by Eric Welch. 4.21: Paul Jeacle and His Band—"When My Dreams Come True" (Berlin), "The Mannikin Ball" (Dixon), "Slow Gee Gee" (Bee). 4.28: "Hale and Dale," Entertainers: "Blue Hawaii," selected. 4.35: Paul Jeacle and his band: "The Toy-maker's Dream" (Golden), "Sentimental Fool" (Rose), "Do Something" (Green). 4.43: Description of Novice Handicap, five furlongs and a half, Bendigo races, by Eric Welch. 4.50: Close down.

THE CHILDREN'S CORNER.

4.45: "Little Miss Kookaburra."

EVENING SESSION.

6.40: Melody Broadcast. 6.45: French, Madame Soward. 7.0: Time signal. 7.1: Countryman's Session. 7.25: Modern Steels: Heat treatment and properties of springs—Prof. J. Nell Greenwood, D.Sc. 7.40: News. 7.45: Our Radio Service to Listeners—Mr. H. K. Love. 8.0: Time signal.

NIGHT SESSION.

8.0: National Broadcasting Orchestra—Overture, "Vanity Fair" (Fletcher).
8.6: Norman Bland and his Partner—Almost Gentlemen—will entertain.
8.16: Leslie Raphael—Syncopated pianism.
8.22: "Neath Oriental Skies." The music of the Eastern races, peculiar to the Orient, so fascinating, so uncommon, and so popular, will be the basis of the following 40 minutes. "In a Persian Garden," will be introduced, and a full story will be enacted during the playing of this well-known "Oriental" classic. And then—from the sublime to the ridiculous—we will present "Fun in a Harem," an entirely different touch of the East, but introducing an artistic blending of humor and melody.
8.2: With the Masters—recital by the famous Polish violinist, Tarczynski.
9.17: Thos. George, bass—"Hear Me, Ye Winds and Waves" (Handel), "An Epitaph" (Maurice Besley).
9.24: A.B.C. String Quartette—Movement from Quartette by Haydn.
9.34: John H. Hopkins—Humorous Monologue, "The Amateur Actors" (Jackson).
9.41: National Broadcasting Orchestra—Selection, "Rose Marie" (Primi).
9.54: Norman Bland and His Partner—Almost Gentlemen—will entertain.
10.3: Leslie Raphael—Syncopated pianisms.
10.10: Thos. George, bass—"Firewell in the Desert" (Adams), "Tally-Ho" (Leoni).
10.17: National Broadcasting Orchestra—"Berenade" (Pierné), piano novelty, "The Squirrel Dance" (Smith).
10.23: News Session.
10.33: Paul Jeacle and his Band—Dance music
11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength 184 Metres).

MORNING SESSION

8.15 to 11.0: See Friday.

MIDDAY SESSION

12.0 to 2.0: See Friday.

AFTERNOON SESSION

2.1: Orchestra—Nat Shilkret's Orchestra. 2.4: Comedian—Johnny Marvin. 2.7: Saxophone—Howard Jacobs. 2.10: Entertainer—Leonard Henry. 2.13: Dance music—George Olsen and His Music. 2.19: Comedian—Frank Crummit. 2.19: Piano—Leslie Loh. 2.25: Soprano—Amelita Galli Curci. 2.29: Violin—Fritz Kreisler. 2.33: Vocal duet—Winnie Melville and Derek Oldham. 2.37: Orchestral—Berlin State Opera Orchestra. 2.41: Soprano—Amelita Galli Curci. 2.44: Band—Band of His Majesty's Goldstream Guards. 2.47: Duet—Winnie Melville and Derek Oldham. 2.51: Orchestral—Philadelphia Symphony Or-

chestra. 2.55: Baritone—John Brownlee. 2.58: Band—Band of H. M. Coldstream Guards. 3.1: Request numbers. 3.20: Orchestral Chorus—Creating a Love for Music—Miss M. Lush. 3.35: Musical interlude. 3.40: Home Management: Home Dyeing—Miss Kathleen Benningfield. 3.55: Musical interlude. 4.0: Women's status in other countries—Mrs. Nora Callison. 4.15: Musical reproduction. 5.0: Chimes. 5.1: Musical reproduction. 5.30: Weather. 5.45: Close down.

EVENING SESSION

6.15: Dinner music. 7.32: Sporting results. 7.35: Latest musical releases. 8.0: G.P.O. chimes.

NIGHT SESSION

8.1: Transmission of concert from Xavier College, Kew. Programme—Selected items, Garnier Bradley Orchestra (by courtesy). Songs (harmonised), "Waiting for the Spring" "Oft in the Stilly Night"—College choir. Orchestral selection—Garnier Bradley Orchestra. Songs (harmonised)—"Sally in Our Alley" "Merrily Fall the Flakes of Snow" "Garnier Bradley" Orchestra, Songs and Chorus—"Punicull Punicull" Selected, Burke Hall Choir. Selected items—Garnier Bradley Orchestra. Songs (harmonised), "Carry Me Back to Old Virginny," "Good-night," College Choir.
9.0: Why do We Behave as Human Beings: What is an Instinct?—Prof. J. A. Gunn, M.A., B.Sc., Ph.D.
9.15: A Studio reproduction of Schubert's Symphony in C Major—Andante, Allegro ma non troppo Andante con moto, Allegro vivace.
10.20: Weather and news.
10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength 385 Metres).

Day sessions as usual. 7.45 p.m.: Lecturette, a talk arranged by the Queensland Agricultural High School and College.

NIGHT SESSION.

8.0: The Studio Orchestra—Dance music.
8.10: C. V. Woodland (baritone)—"Vulcan's Song" "Gounod" "Song of the Clock" (Burchell). "Don Juan's Serenade" (Tchakowsky).
8.20: The Studio Orchestra—Dance music.
8.30: Harry Grunden and Mark Solomon (entertainers).
8.45: The Studio Dance Orchestra—Dance music.
9.0: Metropolitan weather forecast. Movements of highness steamers.
9.5: Ruth Tregurtha (elocutionist)—"The Bird in Fifteen Acres" (Stevens) (Belloc).
9.15: The Studio Dance Orchestra—Dance music.
9.25: Mrs. Corriand (harpist)—Selected melodies.
9.35: C. V. Woodland (baritone)—"Mother o' Mine" "Tours" "Rage, Thou Angry Storm" (Benedict).
9.45: The Studio Dance Orchestra—Dance music.
10.0: News. Weather.
9.15: Mrs. Rev Parkinson (soprano)—"Silent Noon" (Vaughan-Williams). "Candle-light in the Coleridge-Taylor).
10.25: The Studio Dance Orchestra—Dance music.
11.0: Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength 409 Metres).

MORNING SESSION.

During the day a description of the cricket match, South Australia v. Queensland, will be given. 11.15 to 2.0 (see Friday).

AFTERNOON SESSION.

3.0 to 4.30 (see Friday).

EVENING SESSION.

6.0 to 7.30 (see Friday). 7.40: Rev. E. S. Kiek, M.A., B.D., on "The Freedom of the Press." 7.55: An address to Boy Scouts.

NIGHT SESSION.

8.0: Programme review.
8.10: The Apollo Radio Choir—"Messe Solonelle" "Gounod" Isolists, Mrs. Keith Steward, soprano; Mr W. H. Danarell, tenor; Mr. C. A. Manthorpe, baritone.
9.1: Meteorological information, including Semaphore tides; overseas train report; announcements.
9.5: The Cotton Pickers—"Hasta Manana" (Gillespie), "La Palueta" (Luigi).
9.0: The Apollo Radio Choir—"Tis Morn" (Geibel).
9.15: Jean Finlay (pianist)—"On Wings of Song" "Mendelssohn-Liszt," "Seguillitas" (Albeniz).
9.21: Vocal number.
9.29: The Cotton Pickers—"Night Time in Honolulu" (Johnston).
9.32: The Apollo Radio Choir—"The Tap of the Drum" (Rossini). "The Cuckoo Sings in the Poplar Tree."
9.40: Jean Finlay (pianist)—"A Concert Study in D Flat" (Liszt).
9.47: Vocal number.
9.55: Orchestral number.
10.5: The Apollo Radio Choir—"Good Night, Beloved" (Pisous).
10.9: The Cotton Pickers—"Poor Old Joe," "Honolulu Moon" (Laurence).
10.15: News, weather, sporting.
10.30: Dance recordings.
11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength 435 Metres).

Day sessions as usual (see Friday).

EVENING SESSION—8.0: Chimes.

8.1: Weather.
8.2: Reminiscences of the old sailing ship. 8.32: Mayland's Orpheus Society, "Sea Chanties." 8.32: "The Story of the Chanties," by Charles Schwab.
8.47: Reminiscences of the Plantation Melodies. Mayland's Orpheus Society. 9.0: Weather. 9.1: Announcements. 9.4: Mayland's Orpheus Society. Plantation Melodies. 9.12: "The Story of the Plantation Melodies," by Charles Schwab. 9.27: Mayland's Orpheus Society. 10.0: Weather. 10.6: Dance Band. 10.59: Weather. 11.0: Chimes.



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Local Programmes, Thursday, November 28

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and Meteorological information for the man on the land.
 7.3: This morning's news from the "Daily Guardian."
 7.8: Austradio Musical Reproduction.
 7.45: Mails and shipping.
 7.48: What's on to-day?
 7.50: Children's Birthday Calls.
 8.0: Music from the Studio.
 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
 10.32: A.B.C. Racing Observer.
 10.45: HORACE WEBER at the GRAND ORGAN.
 11.0: HOUSEHOLD HINTS: Domestic Notes by Miss Ruth Furst.
 11.10: CABLES (Copyright), A.P.A. and "Sun-Herald" News Service.
 11.15: MORNING DEVOTION. From 11.30 to 12.30 the Programme will be transmitted from the Radio Show, 1929, from the State Shopping Block.
 11.30: Austradio Musical Reproduction.
 11.53: British Official Wireless Press.
 12.0: "Big Ben": Stock Exchange, and Metal Quotations.
 12.5: A MORNING STORY.
 12.20: Midday weather forecast and weather synopsis. Special produce market session for the man on the land, supplied by the State Marketing Board.
 12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch Hour Music.
 2.0: Stock Exchange, second call.
 2.2: A Glance at the afternoon "News."
 2.7: To-day's acceptances, by the A.B.C. Racing Observer.
 2.17: POPULAR EDUCATION: C. N. Baeryert, "Spoken English."

THE RADIO MATINEE—2.30 to 4.30 p.m.

- 2.30: THE 2FC INSTRUMENTAL TRIO.
 2.42: MINETTE CANNY, Monologues—
 (a) "Busy Little Bee" (Von Telzea).
 (b) "Aren't Men Funny" (Love and Bertram).
 2.49: THE 2FC INSTRUMENTAL TRIO.
 3.3: PHYLLIS BATEMAN, Violinist—
 (a) "Romance," from the "Concerto in D Minor (Wienawski).
 (b) "Danse Espagnole" (Granados-Kreisler).
 3.10: THE 2FC INSTRUMENTAL TRIO.
 3.25: MINETTE CANNY, Monologues—
 (a) "Don't You Mind It Honey" (Roma).
 (b) "Mighty Lak' a Rose" (Nevin).
 3.32: THE 2FC INSTRUMENTAL TRIO.
 3.47: PHYLLIS BATEMAN, Violinist—
 (a) Last Movement from "Sonata Da Camera" (Locatelli).
 (b) "From the Canebrake" (Gardner).
 3.54: FRANCIS JACKSON will speak on "The New Germany."
 4.10: THE 2FC INSTRUMENTAL TRIO.
 4.28: Stock Exchange, third call.
 4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Goodnight" Stories, told by Aunt Goodie.
 6.45: Dinner Hour Music.
 7.20: A.B.C. Sporting Service.
 7.25: Special Country Session. Stock Exchange Resume, Markets, Weather Forecast. Late news from the "News." Truck Bookings.
 7.58: To-night's Programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

2FC offers a Play on Thursday night and to-night's feature is under the capable direction of the A.B.C. Players. Jack Dempsey, "Just Different," will intrigue the interest of Listeners. There are Song Groups by Clifford Lathlean, and a recital by Ida Tear, Pianist. The Overture and Presentation will be taken from the Capitol Theatre. Through 2BL Service the programme is relayed from 3AR Melbourne, Fritz Hart's Australian opera, "The Woman Who Laughed at Faery."

- 8.0: FROM THE CAPITOL THEATRE: Horace Sheldon's Capitollans.
 J. Knight Barnett at the Wurlitzer.
 8.7: FROM THE STUDIO: CLIFFORD LATHLEAN, Basso.
 (a) "When the King Went Forth to War" (Koenemann).
 (b) "Remember the Poor" (Stanford).
 (c) "Rolling down to Rio" (German).
 8.14: IDA TEAR, Pianist—
 (a) "Dreaning" (Schumann).
 (b) "Valse Noble" (Schumann).
 (c) "Prophet Bird" (Schumann).
 (d) "Moment Musical" (Schubert).
 (e) "Hark, Hark, the Lark" (Schubert-Liszt).
 8.26: JACK DEMPSEY, "JUST DIFFERENT."
 8.33: FROM THE CAPITOL THEATRE: J. Knight Barnett at the Wurlitzer.
 8.50: FROM THE STUDIO: THE COUNTRY MAN'S WEATHER SESSION—
 (a) New South Wales forecasts.
 (b) Interstate weather synopsis.
 8.52: THE A.B.C. PLAYERS in Two Short Radio Plays.
 9.37: IDA TEAR, Pianist—
 (a) "Three Valses" (Brahms).
 (b) "Minuet a la Cour" (Niemann).
 (c) "Rabbitt Hill" (Agnew).
 (d) "Concert Study" (Bowen).
 9.49: CLIFFORD LATHLEAN, Basso—
 (a) "Johnny goes down to Hilo."
 (b) "Rio Grande."
 (c) "Shenandoah" (d) "Billy Boy."
 9.58: ILLUSTRATED MUSIC LECTURE—
 "The Waltz, Past and Present."
 10.15: Announcements.
 Late Official Weather Forecast.
 10.20: FROM THE HOTEL AUSTRALIA: Cec. Morrison's Dance Band.
 11.30: CLOSE.
 "NATIONAL ANTHEM."

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. Chimes and Announcements.
 8.16: Music for every mood.
 8.40: Meteorological data for the country.
 8.45: Mails and Shipping Information.
 9.50: Memory Melodies.
 9.0: This Morning's Story.
 9.30: A Musical Interlude.
 9.40: British Official Wireless Press.
 9.45: New Music.
 10.2: News from the "Labor Daily."
 10.5: News from the "Daily Guardian."
 10.10: Austradio Musical Reproduction.
 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION. Conducted by Miss Gwen Varley.
 11.0: G.P.O. Chimes. Close Down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. Chimes and Announcements.
 Austradio Musical Reproduction.
 12.30: LUNCH MUSIC.
 1.0: Afternoon news from the "Evening News."
 1.5: Studio Music.
 1.15: Women's Interest Talk—MRS. MILDRED MUSCIO—"Children from the Far West."
 1.30: Austradio Musical Reproduction.
 2.0: J. KNIGHT BARNETT at the "Wurlitzer."
 2.12: Studio Music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: JEAN ARMSTRONG will speak on "Athens and its Environs."
 2.45: MODERN MUSIC.
 DURING THE AFTERNOON ITEMS WILL BE TRANSMITTED FROM THE RADIO SHOW—1929—FROM THE STATE SHOPPING BLOCK.
 2.0: ETHEL MULLER, Contralto—
 (a) "Willow Song" from "Othello" (Sullivan).
 (b) "When Summer is Gone" (Wilhite).
 2.7: DANCE MUSIC.
 3.17: ANNIE HUGHES, Entertainer—"Chatter" (Annie Hughes).
 3.22: NEW SONGS.
 3.32: GWEN ROBSON, Pianist—
 (a) "Prelude Op. 28 No. 1" (Chopin).

- (b) "Prelude No. 21" (Chopin).
 (c) "Prelude No. 22" (Chopin).
 (d) "Prelude No. 23" (Chopin).
 3.39: ETHEL MULLER, Contralto—
 (a) "I Love You More" (Dorothy Lee).
 (b) "The Carpet" (Sanderson).
 3.46: F. H. RAWARD will speak on "Canada and its Mighty Forests."
 4.0: ANNIE HUGHES Entertainer—"Oh, Mother" (Annie Hughes).
 4.7: MELODY MEMORIES.
 4.17: GWEN ROBSON, Pianist—
 (a) "Dr. Gradusad Parnassum" (Debussy).
 (b) "The Little Shepherd" (Debussy).
 (c) "Gollwog's Cakewalk" (Debussy).
 4.24: RADIO RHYTHM.
 4.45: The Trade Hour—Demonstration Music.
 5.45: Weather Information. Close Down.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
 6.45: THE GIRLS' RADIO CLUB, conducted by Miss Gwen Varley.
 7.5: The Country Man's Market Session—Wool, Wheat, Stock, Farm Produce, Fruit and Vegetable Markets.
 7.20: DINNER MUSIC.
 7.45: Austradio Musical Reproduction.
 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

- 2BL are featuring to-night the relay from 3AR Melbourne by Fritz Hart's Australian Opera, "The Woman who Laughed at Faery."
 8.0: RELAY FROM 3AR MELBOURNE—Fritz Hart's Australian Opera, "THE WOMAN WHO LAUGHED AT FAERY."
 NOTE: During intervals from Melbourne the Weather Information for the Man on the Land will be broadcast.
 10.25: Late news from the "Evening News." Late Weather Forecast.
 10.30: NATIONAL ANTHEM. Close.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 2.0 to 3.30, 5.15 to 8.0, as usual.
 3.0: Mr. William Green, tenor. 8.7: Symphony Orchestra. 8.15: Miss Florence Day, contralto. 8.22: 'Cello solos. 8.30: Mr. Jack Win and Miss Nora Windle in a humorous sketch. 8.40: Symphony Orchestra. 8.50: Mr. Tom Harrison, baritone. 9.0: Weather report. 9.7: Advertis. 9.15: Mr. William Green, tenor. 9.25: 'Cello solos. 9.30: Miss Florence Day, contralto. 9.40: Mr. Jack Win and Miss Nora Windle in a humorous sketch. 9.50: Mr. Tom Harrison, baritone. 10.0: Instrumental music. 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

- MIDDAY SESSION, 12.30 to 4.30; EVENING SESSION, 5.30 to 8.0, as usual.
 7.45 p.m.: Garden talk by Mr. S. H. Hunt.
 8.0: Tenor and baritone recital. 9.0: Comments on foreign affairs by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

- MORNING SESSION, 10.0 to 12.0. CHILDREN'S SESSION, 6.0.

EVENING SESSION.

- 7.0: Musical interlude.
 7.5: Birthday calls.
 7.15: Request numbers.
 7.30: Hawaiian steel guitar selections.
 7.45: Humorous interlude.
 8.0: Orchestral selections.
 8.10: Tenor solos, Mr. G. Mason.
 8.18: Humorous interlude.
 8.30: Frederick Holt presents a recital of Australian compositions and composers, with musical and vocal illustrations.
 9.10: Request numbers.
 9.40: Continue record recital.
 10.0: Closing announcements.

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Interstate Programmes, Thurs., Nov. 28

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: As usual.
MORNING SESSION.
10.30 to 12.30: As usual.

MIDDAY SESSION.

1.0 to 1.15: As usual.
SPORTING AND EDUCATIONAL.
1.58: Description of Trial Handicap, 5½ furlongs, Bendigo Races, by Eric Welch. 2.5: Great Australian—Dr. Pearson. Dr. J. Howlett Ross. 2.0: Musio Explained and Illustrated—Mr. A. E. Nickson, F.R.C.O. 2.35: Description of Encourage Mile, Bendigo Races, by Eric Welch. 2.45: Moments with Mark Twain by "The Story-teller." 3.0: Melbourne Observatory time signal.

BRASS BAND MATINEE.

3.0: The Regent Brass Band—March, "Silverwood"; cornet solo—"Robin Adair." 3.8: Kate Cornell, entertainer—"How to Live to be Two Hundred." 3.13: Description of Bendigo Handicap, one mile, Bendigo races, by Eric Welch. 3.20: Harry Bennett, xylophone—"Louise," selected. 3.25: Carmen Mascagni, soprano. 3.32: The Regent Brass Band—Selection, "In Edinboro' Town." 3.43: Description of Handicap Trot, Bendigo Races, 1¼ mile, by Eric Welch. 3.50: Kate Cornell, entertainer—"The Treasure of a Wise Old Man." 3.57: The Regent Brass Band—Waltz, "Maid of the Mountains"; fox-trot, "Mother's Boy." 4.2: Carmen Mascagni, soprano. 4.9: The Regent Brass Band—Cornet solo, "O Dry Those Tears." 4.13: Description of Brush Steeplechase, two miles, Bendigo Races, by Eric Welch. 4.20: Harry Bennett, xylophone—"Kiss Me Again," selected. 4.25: The Regent Brass Band—Russian Mazurka, "Titanic" march, "Canberra." 4.32: Sporting results to hand. 4.35: Musical interlude. 4.42: Description of Welter Handicap, seven furlongs, Bendigo races, by Eric Welch. 4.50: Acceptances and barrier positions for Sandown Park races, on Saturday, November 30. 5.0: Close down.

THE CHILDREN'S CORNER.

5.45: "Bobby Bluegum" and "Clever Clarice."

EVENING SESSION.

6.35: Melody broadcast. 6.40: Let's Talk About Our Animals—Sheep Dogs. Mr. J. R. Moore. 6.55: Melody broadcast. 7.0: Melbourne Observatory time signal. 7.1: Comyns's Session. 7.25: Fox the Man on the Land—Control of Potato Diseases, Mr. S. B. Adam. 7.40: News. 7.45: The latest Books—Mr. A. E. McMillen. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: National Broadcasting Orchestra—Characteristic Novelty: "In a Bird Store" (Lale).
8.8: "J and G," the Confidential Two—Popular melodies.

8.15: You will hear the outstanding personality or subject of the week.

OUR DANCE NIGHT.

8.30: Paul Jeacle and his Band—Dance Music.
8.40: Ruby Davidson, soprano—"The Song of Songs for Me" (Serlin).
8.43: Paul Jeacle and his Band—Dance Music.
8.53: "J and G," the Confidential Two—"Entre Nous."
9.6: Paul Jeacle and his Band—Dance Music.
9.6: Allan Bell, comedian—"Murders" (Henty).
9.10: Paul Jeacle and his Band—Dance Music.
9.20: Roy Simpson, bass—"There's a Song Down Every Roadway" (Haydn Wood).
9.23: Paul Jeacle and his Band—Dance Music.
9.33: "J and G," the Confidential Two—"Something New."
9.36: Paul Jeacle and his Band—Dance Music.
9.46: Ruby Davidson, soprano—"Walita Poff" (Hill).
9.50: Paul Jeacle and his Band—Dance Music.
10.0: Allan Bell, comedian—"Grief and Pain" (Rudd).
10.4: Paul Jeacle and his Band—Dance Music.
10.14: Roy Simpson, bass—"Devonshire Cream and Cider" (Sanderson).
10.17: Paul Jeacle and his Band—Dance Music.
10.27: Allan Bell, comedian—"My Night Out" (Allan Bell).

NEWS SESSION.

10.30: British Official Wireless news. Meteorological information. Items of interest.

DANCE MUSIC.

10.40: Paul Jeacle and his Band—Dance Music.
10.50: Ruby Davidson, soprano—"Here's to Love" (Rabens).
10.53: Paul Jeacle and his Band—Dance Music.
11.3: Allan Bell, comedian—"I Want a Holiday with a Real Nice Girl" (Topham).
11.6: Paul Jeacle and his Band—Dance Music.
11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 481 Metres).

MORNING SESSION

8.15 to 11.0: As usual.

MIDDAY SESSION

12.0 to 2.0: As usual.

AFTERNOON SESSION

2.1: Band, Vesella's Italian Band. 2.3: Baritone, John Charles Thomas. 2.6: Piano, Leopold Godowsky. 2.13: Soprano, Claire Dux. 2.19: Band, Vesella's Italian Band. 2.22: Tenor, Margaret Downey. 2.25: String Quartette, New York String Quartette. 2.29: Entertainers, Small and Robertson. 2.31: Comedian, Margaret Young. 2.34: Piano, Adam Carroll. 2.40: Tenor, Charles Wellman. 2.43: Violin novelty, Dave Rubino. 2.46: Comedienne, Margaret Young. 2.49: Band, Walter B. Rogers. 2.54: Entertainers, Small and Robertson. 2.57: Orchestra, Miniature Concert Orchestra. 3.0: Request numbers. 3.20:

Mainly for Women—Weddings, Miss Hattie Knight. 3.35: Musical interlude. 3.40: Food and Cookery—Fried boiling over. Miss B. Osborn. 3.55: Musical interlude. 4.0: Your Health and Appearance—Retaining Your In Face and Neck—Miss Evelyn N. Ellis. 4.15: Traders' Demonstration session—musical reproduction. 4.45: Evensong, transmitted from St. Paul's Cathedral. 5.30: Weather. 5.45: Close down.

EVENING SESSION

6.15: Dinner music.
7.30: What's on the air to-night?
7.32: Sporting results; acceptances and barrier positions for the Sandown Park races on Saturday, November 30.
7.35: Latest musical releases.
8.0: Chimes.

NIGHT SESSION

8.1: A special programme has been arranged.
10.20: Weather and Forecast.
10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual. 7.45: Lecture—"A Talk on Books," by Mr. M. G. MacLeod's.

NIGHT SESSION.

8.0: Welsh National Anthem.
8.3: Studio Orchestra—Welsh selections.
8.10: Gladys Evans (soprano)—Selected.
8.14: Mixed Quartette—"Buddigoleath Calfar!"
8.18: Mrs. A. Beecham (soprano)—"Merch Y Melynydd" (Graves).
8.22: Rev. Morgan Jones—Welsh recitation.
8.27: Stanley Lewis (bass)—"Gwenh Gwynn."
8.31: Studio Orchestra—Selection.
8.37: Gwenda Stuart (soprano)—"Clychau Aberdyff" (Graves).
8.41: Welsh Party—Welsh air, "Ar Hyd Y Nos."
8.45: Mr. and Mrs. A. Beecham—"Gentle Stranger."
8.48: Tom Bassett (baritone)—Selected.
8.53: Welsh Party—"Rhyfgyrch Gwyn Harlech" (Graves).
8.56: Albert Beecham (tenor)—"Yn Nyffryn Clywd" (Graves).
9.0: Metropolitan weather forecast. Movements of Travelling Dental Clinic.
9.3: Studio Orchestra—Welsh selection.
9.9: Jack Thomas (tenor)—"Eryri Wen" (Mrs. Hemans).
9.13: Mrs. A. Beecham—"Codiad Yr Hedydd" (Hayes).
9.15: Studio Orchestra—Selected.
9.15: Welsh Party—"Morfa Rhuddlan" (Graves).
9.30: A recital of electrically reproduced records.
10.0: News. Weather. Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 169 Metres).

MORNING SESSION.

During the day descriptions of the interstate cricket match, South Australia v. Queensland, will be given 11.15 to 2.0 (see Friday).

AFTERNOON SESSION.

3.30 to 4.30 (see Friday).

EVENING SESSION.

6.0 to 7.15 (see Friday). 7.20: Dr. G. H. Wright, M.A., Literature Talks. 7.35: A talk on Tennis Activities. 7.45: Mr. A. M. Whittenbury, "Hints to Poultry Breeders."

NIGHT SESSION.

8.0: Programme review.
8.10: Holden's Silver Band (conducted by Mr. O. Summerton)—"Song of Australia," "Appreciation," "Callip of Bagdad."
8.20: June Barnes (four-year-old elocutionist) will entertain you.
8.25: Angela Demodena (mandolinist)—Selected.
8.32: Holden's Silver Band—"Absence Makes the Heart Grow Fonder." "I Don't Want to Play in Your Yard" (refrains to be sung by James Riley, tenor).
8.42: Lady vocalist (winner of the 5CL Radio Vocal Championship).
8.49: Solo by member of Holden's Silver Band.
8.53: Norman Morphet and Gordon Hele (vocal duettists)—"Love and War," "The Moon Hath Raised."
9.1: Meteorological information, including Semaphore tides; overseas grain report, announcements.
9.3: Holden's Silver Band—"Gavallera Rusticana."
9.15: June Barnes (four-year-old elocutionist) will entertain you again.
9.20: Annelo Demodena (mandolinist).
9.27: Norman Morphet and Gordon Hele (vocal duettists)—"Two Little Girls in Blue." "Silver Threads Among the Gold" (refrains to be sung by James Riley, tenor).
9.37: Gordon Hele (baritone).
9.41: Solo by member of Holden's Silver Band.
9.45: Lady vocalist (winner of the 5CL Radio Vocal Championship).
9.52: Holden's Silver Band—"Musical Moments."
10.2: Norman Morphet and Gordon Hele (vocal duettists)—"Your Eyes Have Told Me So." "Off in the Stilly Night."
10.9: Holden's Silver Band—"Adieu." "Works of Love."
10.15: News; meteorological; sporting, including cricket scores, South Australia v. Queensland.
10.30: Dance recordings.
11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

Day sessions as usual (see Friday).
EVENING SESSION.—8.0: Chimes. 8.1: Weather. 8.2: A.B.C. Revue Company. 10.0: Weather. 10.8: Dance Band. 10.59: Weather. 11.0: Close.

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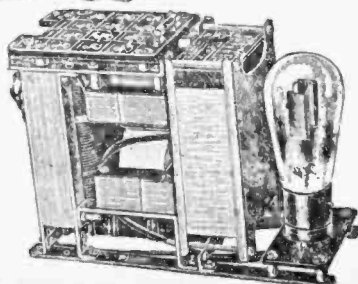
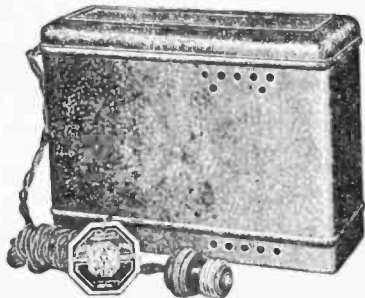
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Radio Information Service

Checking Interference From Power Mains

"I.B.R." Strathfield, writes: "I have had a well-known six-valve set installed in my home, working with an indoor aerial, but find it very susceptible to static, which the expert tells me is most probably due to some local interference." If this static is due to local interference, why is it that it is not at all noticeable on 2FC, while on 2BL it is bad, and on the local B class stations very much worse? On Interstate stations it is unbearable"

Answer: The fact that the interference is absent when 2FC is being received, but is serious when Interstate reception is attempted, proves that it is not the fault of the set itself. When you tune the set to 2FC the signals from that station are so strong that you have to reduce the sensitivity of the receiver in order to get them at reasonable volume. With the receiver operating in this non-sensitive condition, the interference is not audible, since it is so very much weaker than the 2FC signals. The other stations are farther away, and their signals are consequently weaker. In order to receive them it is necessary to increase the sensitivity of the set (by manipulating the volume control), and this makes it more susceptible to the interference. The signals from other States would appear to be only of about the same strength as the interference, and when the set is made sufficiently sensitive to hear the Interstate stations it is in a condition to amplify the interference to an unbearable degree. Atmospheric do result in interference when receiving distant stations, and sometimes when receiving the locals, but there are many nights when they can hardly be heard. It would seem from your description of the trouble that it is certainly coming from a leak or a faulty contact in the lighting wires in the street, or in your house. This type of interference is very common indeed and it is high time that the power companies took some action in the matter of clearing up leaks and faulty contacts in the street wiring. In America almost all power companies have a group of radio men on their staff, whose work it is to investigate all cases of power leak interference with a directional receiver mounted on a truck. With such apparatus the source of the interference is readily located and the fault remedied. Until power companies here take some action, the firms selling good receivers would do well to equip themselves with some such simple apparatus for the benefit of their customers. At least they could locate the trouble, point it out to the power company, and endeavor to get them to rectify it. It is possible, of course, that the fault is in the house wiring. You could make a check on this by operating the set in a house two or three doors from your own and comparing the amount of interference received. If the interference is heard only in your own house it is probable that a qualified electrician would undertake the finding of the fault.

W.K. (Abbotsford).—Providing the valves have lost a great deal of their emission, they are worth experimenting on. If they are still good, however, it would not be advisable. The flashing voltage should be 12, and the ageing voltage 5.

(2) "Can you tell me what plate current a three-valve set uses with A415, A409, and B406 valves? I am using a 90-volt battery."

Answer: Less than 14 mls. Probably about 9 or 10.

(3) "Is it necessary to have a milliammeter to find this?"

Answer: Yes. The characteristics of valves (many other queries please note), particularly those of the Philips type, are often published in advertisements. In any case, the characteristics are always given on a slip inside the valve carton. The plate current draw of each valve is added to find total consumption. Thus the plate current of your valves in the order given is 3 mls plus 3 1/2 mls, plus 7 1/2 mls, equals 14 mls. This applies, however, only when normal plate voltage is used. Yours would be below normal.

W.W.H. (Hurstville).—His address is Mr. J. Mark, 48 St. Mark's Road, Randwick. Construction of radio sets is taught at most radio clubs. There is a Waverley Radio Club. Your method of earthing wires to shield O.K.

E.P. (Newcastle).—The circuit is the standard "Old Reliable," which should give fair results. The amplifier is a good one, and should give excellent results with a good pick-up such as Philips. Toman. Webster, etc.

F.G.B. (Newtown).—Either a faulty speaker, transformer, or valve (assuming you are using correct plate and grid voltages).

R.E.P. (Killara).—"Re the 1930 Superhet. May the 40 turn primary of the r.f. transformer be wound on top of existing secondary?"

Answer: The coupling would be too close.

(2) "Is it possible to use R.C.A. or that type of A.C. valve screen grid in this set, providing correct filament voltages are applied?"

Answer: Certainly, as long as the necessary changes in wiring and direct constants are made.

(3) The D.C. could be used, but it would probably be necessary to use a filter-smoother arrangement with it.

GENERAL: Mr. J. J. Scott, Loam Street, Dalby, Queensland, writes: "I can supply almost any back number of 'Wireless Weekly' from December, 1927, to date. Any reader requiring same, please send stamps to cover postage." (Thanks, Mr. Scott.)

GENERAL: Mr. G. C. Quinton, "Quinvar," 60 Service Avenue, Hurstville Park, writes: "I have the following copies of 'Wireless Weekly' available. Any reader who requires same is invited to forward postage.—Vol. 12: Nos. 32, 33, 34, 35, 36 (30/11/28 to 21/12/28). Vol. 13: 2, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 (28/12/28 to 21/6/29). Vol. 14: Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15 (28/6/29 to 1/10/29)." (Thanks, Mr. Quinton.)

H.F.M. (Marrickville).—"Would you kindly favor me by describing a selective and compact portable receiver reasonably small in size, with three or four valves? Now that the hot weather is approaching such a receiver would not be out of place."

Answer: Sorry, but we cannot give constructional details or publish technical articles in these columns. A portable receiver will be published next week. This will be in time for you to build it for the holidays.

A.E.L. (Newcastle). The valve selection is excellent. Do not change them. Try a .0001 fixed condenser in series with the aerial.

A.L.P. (Lavender Bay). The valve mentioned will be quite O.K., but will probably not last as long as the other. Use the Pilot voltage divider.

S.B. (Bull). The circuit is quite a standard one, using cathodic reaction. The circuit will not give very good results on short waves when made for broadcast as well. A much better plan would be to build a three or four valve broadcast receiver and use a short wave adaptor. Your copy is being returned as requested.

P.K. (Brisbane). Your criticism received. We thank you. Your remarks will receive due attention.

(2) "I suppose I am a super-optimist to hope for an answer to my questions after such criticism?" Answer: We welcome constructive criticism. The sarcastic and destructive variety is merely acknowledged.

(3) "Give details of a choke to carry one and three-quarter amperes suitable for an A' eliminator."

Answer: Such a choke would have to be used in conjunction with large electrolytic condensers, and in any case it is doubtful if you could construct an efficient job without a thorough knowledge of the subject. Such a choke would, in any case, be very expensive to make. However, you could make the core with a cross section measuring 3in. x 3in., and a window 3in. x 2in., and wind 960 turns of 16-gauge (layer-wound, of course) The air gap should be .4 inches.

(4) Your best plan would be to look up instructions and constructional details with chart published in the A.R.E.L. Handbook.

(5) The lastmentioned rectifier would be preferable to the first. The gaseous rectifier has a rating much lower than the filament rectifier.

(6) "Any hope of getting an Australian version of the all-purpose super-het featured in "Q.S.T." of March this year?"

Answer: The receiver is quite suited to Australian conditions. Suggest, however, that you study the amendments published in recent issues of "Q.S.T."

GENERAL: Mr. Edgar R. Fisher, c/o Police Headquarters, Sydney, writes: "I desire to procure the issue of 'Wireless Weekly' for March 22 last, in

which were given constructional details of the Renown Three. I am willing to defray cost of same and postage."

E.R.F. (Sydney). See above. Dick Prowse, of the Police Band, has every copy, and will, I am sure, be pleased to give you the circuit if you cannot obtain it. Unfortunately, we have no copies left. Subscribers or others should forward query coupon.

L.L. (Randwick). "I have the following copies of 'Wireless Weekly.' I will be pleased to send any copies to readers requiring same provided they enclose stamps. The numbers available are:—February 15, April 19, 26, May 3, 10, 24, 31, June 14, 21, July 5, 12, August 23, 30, September 20, 27, October 4, 11. (Thanks, L.L. Your address is published here: 154 Alison Road, Randwick. By the way, you forwarded a circuit of a Reinartz receiver. We have plenty, thanks. Perhaps you meant to ask a query about it? No queries attached.)

C.V.S. (Ulmarra). Yes, a gramophone pick-up could be used. It would increase the volume. Any records could be used. Special records are not necessary. Prices range from about 30/- to £10. The pick-up should be connected to the grid and filament terminals of the detector valve.

R.F.A. (Orange). "Am I correct in assuming that with untuned r.f. amplification the aerial, grid, and plate coils have inductances approximately correct for certain wavelengths, and that one has to be satisfied with this, and chance it?"

Answer: An untuned r.f. coil is made to cover the whole of the broadcast band. The effect is to broaden the tuning considerably. Unless such an amplifier is preceded by a highly sensitive input it would be most unsatisfactory for broadcast reception.

(2) The circuit is a very good one. Broad tuning on a short wave receiver is not so detrimental as on a broadcast receiver.

(3) The midge condenser would not help much, you could improve matters by tuning the secondary with a .0001mf. condenser, but it would probably be necessary to adjust the r.f. coil so that the r.f. and detector circuits are in resonance.

(4) The receiver will probably be better on short waves than long waves, for reasons explained above, and also owing to the fact that the main constants are for short waves. Tuning will probably be broad above 200 metres.

(5) A suitable metal cabinet can be obtained from the Prima Donna Company, who have several sizes. No trouble. We are pleased to assist.

"Cousin Jack" (Queensland).—The drain is 24 1/2 mls, and the only way to reduce it would be to use an ordinary amplifier instead of the power amplifier. Would be pleased to receive particulars of the method you are using to construct your exponential horn. Your measurements are O.K.

J.E.M. (N.Q.).—"Re the 1930 superheterodyne. I should like to know if this set could be altered for battery operation."

Answer: The battery-operated superheterodyne was detailed in the issue of November 8.

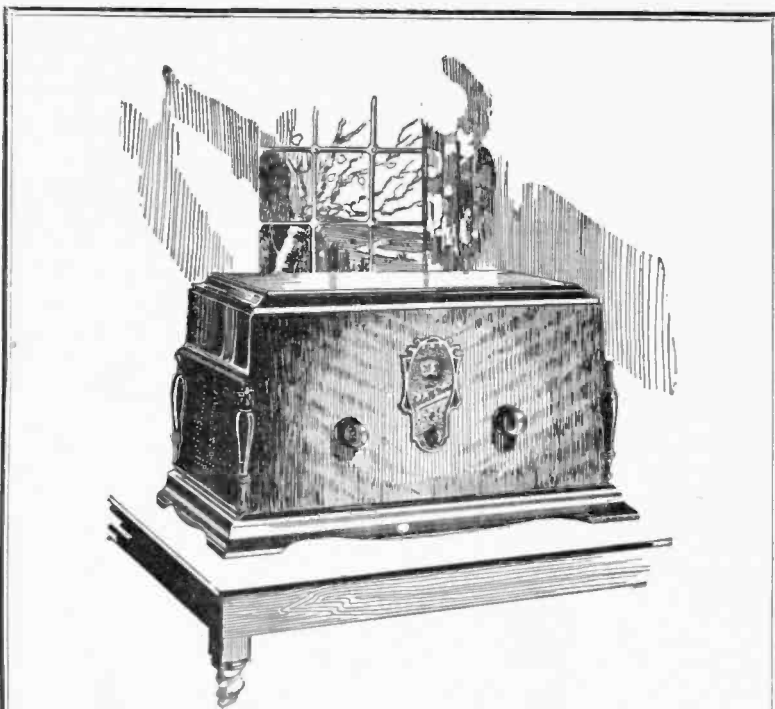
(2) Sorry, cannot advise who are the agents for these, but you might try United Distributors.

General: Readers inquiring for particulars of a superheterodyne entirely battery operated should note remarks to J.E. above.

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, Nos. 53/54/55, Waverley, Sydney, N.S.W. G.P.O. Sydney in care of the Information Service Department, at your earliest convenience. I enclose this coupon in order to indicate that I am a bona-fide reader.



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A.W.H. (Invercargill): "I have a valve which has become loose in its socket. Can I do anything to fix it?"

Answer: If you mean the valve makes poor contact in its socket, open up the legs of the valve with a screwdriver. If the glass has worked loose in the base, stick it with Durofix, or some other good glue.

(2) "Could you or some reader supply me with 'Wireless Weekly' containing the Renown Three description? I am willing to pay double cost of same."

Answer: Regret we cannot supply, but if some reader is able to assist, he will find the inquirer at: Mr. A. W. Hindham, 84 Liffey Street, Invercargill, New Zealand.

Jim (Queensland):—"Will you kindly tell me the life of a six-volt 'A' battery?"

Answer: The useful period is about eighteen months, though the battery can be used for a considerable longer period with more frequent charging.

(2) "Can the battery be renovated?"

Answer: Yes, but the cost is usually an incentive to get another battery. Depend mostly on how far the battery has gone.

(3) "After being in use two years say, does the battery need charging more frequently?"

Answer: Yes.

W.N. (Hurstville):—"Turn the loud-speaker away from the receiver, which should be placed on shock-absorber sponges for feet. The noise due to microphonic valves. The sound-waves from the loud-speaker cause the elements in the valve or valves to vibrate. If the noise is a very loud one, the detector valve is probably to blame, and a change might help."

A.B.G. (N.S.W.):—"Quite good results, but nothing extraordinary considering you are using an aerial. A receiver using an outdoor aerial cannot be classed as truly portable. In previous answer, we referred to a portable receiver using a loop aerial. See if you can get the same result on the loop. Don't fancy you can, or you wouldn't go to the trouble of erecting an aerial at every place you stop. The shock you noticed was evidently due to accumulated static charges on the aerial. By your letter judge that you get this shock very frequently, so you must have a good aerial. There's a world of difference between loop and aerial reception on a standard Browning Drake!"

E.P. (Granville):—"Try earthing the core of the transformer. If this does not help, it may be advisable to shield and earth the eliminator."

J.L.L. (Parramatta):—"The filament control is not necessary for the audio stages. Layout O.K. No advantage by using the coils mentioned. The heavy gauge wire is not necessary. Anything up to 30 gauge is O.K. Will publish your request below."

General—Mr. John I. Lewes, School House, T.K.S., Parramatta, wishes to know if any reader can supply him with a copy of "Wireless Weekly" containing the Renown Three. Inquirer is willing to pay for copy and postage.

RAY MST. (Cooma):—"I wrote to you asking some questions about interference in radio sets, but think you gave me a very poor answer. The question was 'How can I overcome the interference caused by a small lightning plant?' Do you think I could go and start interfering with somebody else's plant?"

Answer: Certainly not, but you didn't advise us to whom the plant belonged, and, judging by your letter, it was not such a letter as to be free of useless matters, and not one item bearing on the subject are a waste of time. In any case, once you found what would be necessary, your own sense should have told you to advise the owner of this, and if he appeared disinterested, get a paper signed by local residents, and present it to the council. The speakers can be connected either in series or in parallel, the series method being better. The other is the cause of static, and there is no remedy. A heavy burst of static may paralyse the detector valve for a fraction of a second.

A.J.P. (Melbourne):—"I am going to construct the 1930 superhet., and am commencing to gather the parts together. I have been operating a super. for the last three years, so have a fair experience with them. You state Formodensars as .0003. Types obtainable in Melbourne give minimum and maximum capacities. Would you please state what I should do?"

Answer: Condensers are usually rated at their maximum capacity. Thus a .0005 variable condenser may have a minimum capacity of .0003, but you would order the condenser by its highest capacity. The same applies to the Formodensars. Order those with a maximum capacity of .0003 mfd.

(2) "Would it be possible to operate the super. as a single control with a trimmer on the oscillator condenser?"

Answer: Yes, providing a large trimmer was used. Prefer the double control.

(3) "In connection with the audio side, would it be any advantage to have two valves in parallel, or would it be feasible to have some kind of push-pull arrangement?"

Answer: Mr. Hull advises that owing to the enormous r.f. amplification of the receiver, additional audio stages are not only unnecessary, but even detrimental to one reproduction. Push-out would mean difficulties, since ordinary transformer cannot be used in plate circuit of s.g. detector.

J.B. (Queensland):—"Will you please tell me if location has anything to do with reception? I have a five-valve receiver, which does not give very good results, while neighbors with the same type set, but newer, are getting excellent results and wonderful volume. When I switch on, there is a sort of squeal."

Answer: Do not think location is trouble here. The squeal may be due to flat "B" batteries, or faulty grid bias, or you may have the wrong plate voltages.



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