

WIRELESS WEEKLY

Vol. 9, No. 11.

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Friday, Jan. 7, 1927.



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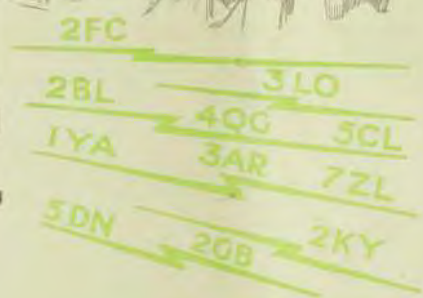
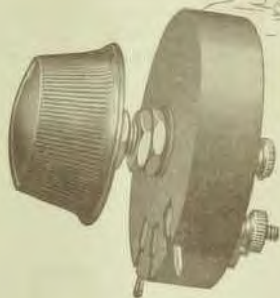
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WIRELESS WEEKLY

VOL. 3. No. 11.

FRIDAY, JANUARY 7, 1927.

Looking Ahead

AMONG other things it requires courage to be a prophet among radio enthusiasts. Every listener-in considers it his right to be allowed to amaze those he meets with wonder stories of a future dominated by radio. Weird and fanciful as are most of these visions (varying according to the imagination of the listener), it is natural that they should conflict, so it is to invite criticism to publish one's forecast of radio developments within the next fifty years.

Fortunately for us (for his article made excellent reading), Mr. E. T. Fisk, in addition to possessing a thorough grasp of the fundamental principles and practical applications of electric and an imagination carefully disciplined by a knowledge of the limitations of human nature, is fearless of the searching criticism of radio men. It is noticeable that, though there have been many vague references to the future of radio, very few men of prominence in other parts of the world have ventured to predict definite radio developments. To be a prophet in one's own country is not only to be unhonoured but also to be called a fool, unless the prophet enjoys high prestige in the minds of the public. Perhaps that is why so few have ventured to take up the role. Again, one must be more than a radio man;

something of a philosopher is necessary for, during the next fifty years, radio will be so much a part of our lives that to predict the advance of radio is to predict the advance made by humanity itself.

A survey of new receivers now on the market indicates that the trend this year is in the direction of tuned radio frequency models having two, and in some cases three, stages of radio frequency amplification, with detector and ordinarily two stages of audio frequency amplification. Much development has been made during the past year or two along the lines of improvement in the audio frequency amplification end of the receiver through the use of power valves in the output stage or stages. The fact that power valves are necessary, in order to prevent distortion where smaller valves are overloaded, is now well recognised and the power valves are to-day a part of the modern receiving set.

The trend in cabinet design is decidedly towards console models, although there is still a very large volume of sales in the table types. The indication now is that the public has come to regard radio as a permanent fixture in the home, and therefore feels that the receiving set should be properly housed in its own individual cabinet of the console or furniture type.



Between You and Me and the Microphone

Conducted by
R. E. CORDER



MORE THAN 1,500 letters reach 4QG each week from listeners-in.

REFERENCE to the Birthday book at 4QG shows that over 700 children were wished "Many Happy Returns" during the month of November.

THE NEW ZEALAND P.M.G. has given the Radio Broadcasting Company the necessary six months notice to erect and operate an up-to-date high-powered broadcasting station at Wellington.

THE RADIO BROADCASTING COMPANY of New Zealand announces that the 3YA, Christchurch, silent day will be observed on Tuesdays in future instead of Thursdays.

THE CALCUTTA STATION, 5AF, which used a power of 1½ kilowatts, has been closed down, and its place will very shortly be filled by a new station, which will operate on 12 kilowatts. Whereas 5AF had a daylight range of 200 miles only, the new Calcutta station will be within range of Australian listeners.

KNOCKED DOWN by a motor car in one of the main streets of Brisbane recently an elderly woman was admitted to hospital in a critical condition. When it was seen she would not live the Roma Street police broadcast her description through 4QG. Within five minutes the woman was identified and her relatives reached her bedside before she died.

A RADIO LISTENER at Lakemba has written to 2FC asking that the G.P.O. clock chimes be broadcast more often. He explained that listeners in his neighbourhood set their watches and clocks each night, before going to bed, taking the time from the radio set. As a matter of fact both the Sydney stations tune in G.P.O. every hour, and occasionally work in the quarter and half hour chimes as well. Watchmakers and jewellers usually take the time over the air and a number of country schools check the clock in the same way.

THE NUMBER OF receiving licenses now issued in Great Britain is 2,105,000. It is hoped that the 2½ million mark will be reached this year.

A BALLAD OF BROADCASTING.

There are poets who sing
About flowers in the spring
A subject that seems everlasting;
My poetical theme
Is a practical scheme
To ensure the success of broadcasting.

Now the scheme I propose,
Is one, I suppose,
Which most listeners' approval will gain—
That all pirates should be
Made to pay double fee.
Or in "trunk" be compelled to remain.

And those nuisances great,
Who each night oscillate,
And other folks' pleasure do spoil;
Should be heavily fined,
Or in prison confined,
Or dumped down on some desolate isle.

And those listeners who grouse
At the programmes, I'd house
In some spot where no wireless they'd
hear

With an old gramophone,
And cracked records, whose tone
I would horribly grate on their ear.

Those for jazz tunes who seek
Every night of the week,
I'd ship the whole lot right away,
To some far distant land,
Where with Jacobson's band,
They could fox-trot the whole blooming day.

And that other mad lot,
Who on "highbrain" do dote,
And sneer at each popular air—
With Beethoven I'd dose,
Till they turned up their toes,
And died in a dismal despair.

Then, freed from those pests,
For the popular tastes,
To cater would be pleasure lasting;
And the broadcaster's job,
Of all worry would rob.
And ensure the success of broadcasting
Clermont. A.S.

A CLERGYMAN has been lecturing on happiness from KGO. He ought to have performed enough marriages to know that there is no such thing.

TO COMBAT forest fires, similar to those which raged throughout N.S.W. just before Christmas, the Forestry Department of California employs radio.

THE APPEAL FOR FUNDS to instal a wireless set at the Denilquin Hospital has resulted in the collection of £80, reports the "Pastoral Times."

THE GREEK GOVERNMENT has prohibited the use of receiving sets tuning to more than 2000 metres. One of the best ways to win listeners on a particular wavelength is to pass a law against listening-in on it.

THE BROADCASTING INTER-FERENCE TANGLE which has hampered European broadcasting has been solved by a committee of experts. The standard of 10 kilocycles separation has been adopted and the 99 channels available have been divided into two groups, 83 exclusive and 16 non-exclusive channels. Of the exclusive channels, Germany receives 12, Great Britain and France 9, Western Russia, Italy, Spain and Sweden 5, Czechoslovakia and Norway 3, and the remaining countries one or two each. The 16 non-exclusive wavelengths must accommodate 115 stations, approximately an average of 7 per common channel.

A PLEA that television devices should be under Government control was made by Lt.-Col. J. R. Relf in his lecture before the Radio Society of Great Britain recently. "What," he asked, "would be the consequences if this invention got into the hands of unscrupulous traders at home and abroad?" The application of television, said the lecturer, meant revolution to practically all standards of living at the present time.



How We Celebrated Christmas Eve

By OSWALD ANDERSON

In this article the manager of Farmer's Broadcasting Service gives the reader a very good idea of the trouble and effort which lies behind a big programme such as that broadcast from 2FC on Christmas Eve. In the above picture those artists who took part in that programme are seen.

IN a weak moment some time ago, I said to that good friend of 2FC,

Mr. E. J. Van de Velde, affectionately called "Van" by all those at the studio: "Have you any good photographs of London?" The word photographs to "Van" is meat and drink, and one has yet to discover a subject unphotographed by him. The next morning he appeared with a series of fine photos of the better and lesser known parts of London, and the idea of broadcasting a Christmas Eve in London was discussed.

The services of Mr. S. H. Bowden, an authority, were called upon, and we set about writing our first big radio scenario. Now that the whole thing is over, one marvels at the effrontery displayed in attempting, and getting away with, such a difficult proposition as to take up the whole of an evening's programme—three hours—to a story, the realism of scenes and places of which could

only be fully appreciated by those who had either visited London or who had a very good idea of this wonderful city.

We have always been told that the production of a play should entail rehearsals, and preparation of all the details that go with the launching of a play on the legitimate stage, but it is a fact that the principals of our story were called up for half-an-hour's rough rehearsal only on the afternoon of the show. Yet, from 8.0 to 11.0 we were able to keep the story going without one break, which speaks volumes for the versatility of the radio mind.

Through the courtesy of the Columbia Gramophone Company, the new recording studios were placed at the disposal of 2FC, and our party of thirty arrived at Homebush on Christmas Eve just a quarter of an hour before the programme was timed to commence.

The first trouble that we struck

was that our special "noise box," or we should say the engine calculated to carry out all the noise effects was found to be of no use. Upon this wonderful contrivance we had founded our hopes. It was, Mr. Halbert maintained, capable of producing noises, from the expiring squeak of a penny balloon, to the sound of a "rumbling tank," not to speak of minor disturbances such as underground railways, &c. Was it any wonder, then, that our spirits sank to zero when we realised that this "gadget" which was meant to operate on what is called a D.C. current, would not function on an "A.C." current. However, nothing daunted, we scouted round and found a drill, a motor horn and various instruments guaranteed to create suitable atmosphere, and these were pressed hurriedly into service. This was no sooner done than the call came from the studio to start our play. Our genial H. P. Williams was the producer, Mr. Lawrence Halbert, effects department, and



Mr. Oswald Anderson, manager 2FC, who contributes this article.

How We Celebrated Christmas

(Continued from Page 5.)

general poop bah, Mr. Ewart Chapple, musical director, and the story was to be told by Mr. S. H. Bowden, taking the part of a London press man, Mr. E. J. Van de Velde, a breezy Australian and Mr. Halbert, a young Englishman," that is when he had sufficient time to break away from noise making." Then we had a special staff of effect makers, and in addition the services of others were called upon, none of whom actually knew the whole story. From the moment the carols in St. Paul's commenced at 8 p.m., and the tale was taken up by the principals of the play, until the moment when at 11 p.m. carols were sung in the Soho restaurant, while the snow fell and the dawn of Christmas Day drew near, not a break occurred in our transmission or our story. This speaks volumes for the ready wit and quick brain of those who helped to make this evening a success. Such detail as general conversation, and the noise of footsteps, street cars, &c. while two of the characters were

walking down the street from one place to another — all these were woven into the picture. Such trifles as the noise of the party buying tickets, the giving of change, the arrival and opening of doors as the party entered a theatre—all this was put on the air. The artists had only the script, which gave them a bare outline of the story, consequently the conversation was impromptu, but they simply spoke and acted as they would have done in real life, and in this way a most natural effect was obtained.

In one of the scenes we stumbled upon quite a happy way of filling ten minutes. The manager of the restaurant was supposed to have a very fine wireless set, so after listen-

The following letter is typical of the many hundreds received after 2FC's special Christmas Eve programme. It is from Mr. E. H. Walbet, Woodburn Park, Thirlmere, who writes:—

"Just a line to tell you how much we all enjoyed the "Christmas Eve in London," you entertained us with on Christmas Eve. My daughters have written thanking you for your message of welcome to Australia, and they have explained that we have just arrived back home from far Peru in South America. For our vacation I am connected with the Submarine Cable Service over there, and whatever prejudices I might have had regarding broadcasting have been wiped out, after listening to the excellent programmes you have provided us with. My sister, who is with our parents out at a farm 5 miles or so from Thirlmere, has a fine 5-valve set, and the enjoyment they get from it is above all description. It keeps them in touch with the outside world, and gives them infinite pleasure, and keeps them from being lonely. I got the radio fever, in a sense, some time ago, whilst in Peru, but got disappointed at the results my friends got. A lot of radio "fans" over there professed to get distant stations, but I never got sufficient proof to go to the expense of purchasing a set that would satisfy me. The average set was not (as far as I could gather) capable of receiving more than the Lima Broadcasting Station, who have not yet been able to establish what we would call a first-class concert. It was, therefore, a great pleasure to us to listen to the trip to London on Christmas Eve. We all sat up, enjoying every minute of the entertainment, and at its conclusion, were surprised to find that we were not in London, nor in a Sydney theatre listening to the direct interpretation of the trip, but in a small room, away in the country, miles away from any metropolis."

ing to his cafe orchestra and the various cabaret artists, we called this supposed set into operation switching over London to Queen's Hall, the scenes which followed were quite impromptu. Tuning in and howling valves, noises were heard and then the announcement: "2LO — London and Daventry calling the British Isles," and then followed a most wonderful reproduction of the London Symphony Orchestra, conducted by Sir Landon Ronald, playing the Fire Music from the "Valkyrie." Other well known places were visited by the magic of the wonderful set until the game was becoming exciting. We all entered into the spirit of it, and the cafe proprietor was asked if it was actually possible to get on to Sydney — as one of the party had heard a man living in Surrey had heard the Sydney station 2FC. The cafe manager shrugged his shoulders and signified it was quite a simple matter—"more howling and tuning in," and then to every listener's amusement was heard Mr. Halbert's voice announcing the "Pig and Egg Market reports in the early morning session. The real humour of the situation only struck us afterwards, when we realised that allowing for the difference in time, this is just what listeners in London would have heard.

From a listener's point of view, the evening's entertainment should have been most enjoyable, because the items from the various London Halls were excellent, and one must chuckle when it was realised what clever proofs were worked on the air that night.

From the letters of congratulation received at the studio after the holidays, it seemed clear we made a hit, and spurred on by our initial success, further evenings are to be arranged along the same lines.

The holiday season is by the way a bad season for outside stunts. There are so few worlds outside the studio left to conquer. All the thrills associated with undersea and aerial transmissions, trawlers, &c. have departed, and the development of studio material becomes necessary. It has been said that 2FC was the first Australian station to deliberately

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It's in the Air

Radio Irritations by a Man with a Grouch

I LIKE wireless. Radio is my friend. I am on fairly good terms even with static, since I recognise that it plays the part that fleas play in the scheme of things. As David Harum said, "A moderate amount of fleas is good for a dawg—keeps him fr'm broodin' over bein' a dawg." Same with static; it is the crumpled rose-leaf in the bed of radio.

But feel bound to "let out" now and then on some of the more idiotic features of radio. There is a sort of "air-sickness" about broadcasting today, which badly needs either a doctor or a moral gyroscope to keep the thing on an evil keel.

I am tempted sometimes to wonder if there is any originality in the world, so quick are men to follow sheep-like the lead given elsewhere. Take moving pictures, for example. No sooner does a picture with the word "Flaming" make a success that a half-score films still in the making are given a twist which will enable them to have the word included in their titles, till the flaming things cover every hoarding in the country. So from "Manhanded" we get "Womanhanded," and the next thing we'll see "Flapperhanded," I suppose.

Coming back to radio, consider the number of Uncles that have been added to the world since the first wire-

less Uncle was invented. What a riot of unoriginality. Uncles mean nothing in the lives of most children, except grouchily, down-at-heel individuals who come on visits and cudge money and tobacco from Father, and make Mother wonder when in the world they will go. Yet this avuncular relationship is foisted on Bedtime Storymen the world over. We have Billy Bunny, and Uncle Peter, and Uncle Harry, all talking to the kids in a sugary, sickly tone that ought to give a species of air diabetes to half the population. What miserable specimens they are, too, lying their heads off in the interests of a spurious morality. They get letters from parents, telling them the secret vices of Maudie, aged 3, and Willie, aged 5, and they solemnly pull up their sox before the microphone, smooth out the betraying letter and in honeyed tones they say—"Oh, Maudie, darling, a little bird has been telling me that you have been smoking Daddy's cigars. Now, Maudie, that is a very, very wrong thing to do. Those cigars cost Daddy credit at the tobacconist's and, besides, you should wait till you are a couple of years older before you take to smoking. Your darling Mummy never smoked till she was eight. And, Willie, I am sorry to say the Wireless Bird has told me that you are chewing tobacco. My dear little lad, you'll never grow up like Daddy if you chew tobacco. Tobacco, my dear little boy, was made to smoke, not to chew, except in America, where the poor people get nothing nice to drink, and so must do something to take their minds off trouble."

There, that's the sort of bunk they put over, till Maudie and Willie get a set on birds they never get rid of. They wring the necks of every bird they can catch, never dreaming that it is Uncle Sillyass who is doing the dirty work.

Then here's a funny thing. Every announcer believes that he is the world's best announcer. I have known

Did you ever feel like this about "radio"? Our contributor was this way when he wrote this article.



several, and they have all confided to me that of course it sounds like conceit but that they have had letters from as far north as Timbuctoo, where they have been picked up several times, and those letters tell them that there is no announcer at any station who has quite the same timbre in his voice as he has. All the time the timbre isn't in his voice, but in his head. I have always thought that the demeanour of an announcer going to the microphone is modelled on that of an archangel going to the hole in the floor of heaven with a message to mankind. There is the same dignity about it, the same air that, "Now, I'm going to make a stir in the world." I really believe there is no announcer in the world who does not tell his friends—"It's a funny thing to think of you know, old chap, but I suppose not even the Prime Minister is as well known as I am," only in America they make it the President, and in England and Spain, the King. The principle is the same.

Thank heaven we haven't yet copied the idea some American stations have of reading the telegrams of congratulations that come, telegrams enthusing over the way the announcer read the weather reports last Tuesday night, or the fine way Madame de Squall rendered the ballad. "Ah! Miouw!" from "Les Persians." I believe that the reading of these congratulations sometimes takes a couple of hours. Just think of the boredom

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Coming Features in the Broadcasting Programmes

MUSIC LOVERS will appreciate the series of Beethoven recitals which 2FC has arranged, commencing on Wednesday, January 12th, by Madame Evelyn Grieg and M. Henri Staell. Madame Greig, whose knowledge of the old masters is extensive, will intersperse each sonata with explanatory remarks.

IN RESPONSE to insistent requests from many enthusiastic listeners, Mr. E. J. Van de Velde will give the second of his series "Who's Who in the Zoo" on Thursday, January 13. Corporal Phillips, better known as "Imito," will give imitations of the various animals Mr. Van de Velde is going to talk about, and Miss Dorothy Ewhank will sing bird songs from the cycle by Liza Lehman.

EVER ON THE LOOK OUT for a fresh diversity, 2FC has formed a combination of "Radio Revellers." Plays and acts specially written for broadcasting will be given by this party, and the first of the series of revels will be broadcast on Saturday, January 15. These entertainments will be conducted along the lines of the "Co-optimists" in London.

AN ENTERTAINMENT has been arranged for the Prince of Wales' Soldiers' Hospital, Randwick, on Sunday, January 16, after the close of the church service.

LEICHHARDT BAND, winners of the carnival last year, are strong favorites for the 1927 Band Carnival. The contest begins at the Show Ground on Saturday, January 22, when "C" Grade will play. On Sunday afternoon, January 23, there will be a quick step display, on Monday evening, January 24, "B" Grade, on Tuesday, January 25, "A" Grade, and on Wednesday evening, January 26, (Anniversary Day) the "A" Grade finalists will play.

A NEW combination of vocalists—the Harmony Four—will be heard this year from 4QG. A special programme has been arranged for the initial appearance of this quartette party on Sunday night, January 9.

AMONG THE ARTISTS to begin their season at 3LO with the New Year in Dr. Arnaldo Bartolini, whose rich mellow baritone has won golden opinions throughout the Commonwealth. We are promised exceptionally fine musical programmes as this fine artist has wisely adapted his selections to suit musical tastes of all degrees.

THE "LUNCH HOUR" concerts at 3LO are becoming increasingly popular. Among the artists engaged to broadcast at that hour, few are more

as duets for steel guitars. These tuneful ditties that urge us to become acquainted with the "Sands of Waikiki" are ever popular, and, in certain quarters, command wonderfully attentive audiences.

PIETRO SARCOLI, the eminent Italian violinist, has been re-engaged to broadcast from 3LO. Listeners are already familiar with his masterly rendering of the superb "movements" from the famous concertos, and his sympathetic solo work in selections of lighter vein. His instrument is of great age, and value, and possesses a rich tone of extraordinary sweetness.

WITH THE NEW YEAR all talks at 3LO, except those of paramount interest, are to finish before 8 p.m. During the day the musical programme will begin at 12.30 instead of 1, which fact will be appreciated by the people at home who "switch on for half an hour or so" whilst they are having their solitary bite of lunch.

INCLUDED in the programmes for the New Year are two new comers to 3LO. Miss Lottie Daniell, a coloratura soprano, and Miss Roma Driver, contralto, will shortly make their bow before the microphone. Both possess highly trained voices and with a wide range of songs.

NEW ARTISTS at 2FC include — Miss Nora Hill, Irish soprano; Miss Daisy Richards, violinist; Miss Eileen Boyd, contralto; Miss Eleanor Stanton, contralto; the Whicshell Dance Trio; Miss Suzanne Ennis, contralto; Miss Leslie Elliott, popular entertainer from 3LO; Mr. Brunton Gibb and Miss Elsie Lang, whose clever sketches are much appreciated; Mr. Alfred Cunningham, English baritone; Mr. Cliff Arnold, novelty pianist; Mr. Norman Francis, baritone; Mr. Walter Whyte, tenor; and Miss Belle Pollard. Mr. Whyte has been out of the limelight for some years, owing to a severe nervous breakdown, but despite his illness, his voice still holds that pleasing quality which the microphone enhances.



Tom Lamond, a promising young 2FC artist. A pupil of Mr. Burns Walker, Gilbert Webb, and the Guildhall School of Music, London, he has appeared in a number of concerts at the Sydney Town Hall.

welcome than Miss Mascotte Ralston, of "Lilac Time" fame, who, with her ukelele and her plaintive original way of singing, that lifts ballads of the "I'm sitting on top of the World" type, so much above the ordinary, has sung herself into favour in an amazingly short space of time.

THE MOANA LUG DUO, popular 3LO artists, have been burning the midnight oil in their endeavour to keep pace with the times, by arranging the latest Hawaiian melodies

The Humour of Radio Interviewing

INTerviewing for broadcasting purposes is often amusing. It is very different for a trained journalist to chat with some person who has come into the limelight, and later writes his impressions of the conversation, and for a radio announcer to drag his victim before the microphone and ask him questions which everyone who owns a radio set can hear.

The journalist may spend an hour with his subject and then condense the latter's remarks and opinions into a quarter of a column, rounding off the sentences and trimming up the grammar as required. But every word of the radio announcer and the replies of the person interviewed go into the microphone and are heard by listeners for hundreds of miles around.

The humor enters into the question when the hero of the occasion will not talk. A journalist, finding his subject reticent may draw him out with questions. "Do you believe in the vegetarian theory?" he may ask. "Are you a supporter of the feminist party?" and in accordance with the replies the published interview might read: "Mr. Smith said he was a believer in vegetarianism, but did not support the feminist party."

The radio interviewer (and incidentally it may be mentioned that pressmen are the best interviewers for broadcasting) cannot do it that way. This was discovered by Uncle George Saunders, announcing for 2BL, a few nights ago when broadcasting from the Maroubra Speedway.

The big event of the evening was a motor cycle race in which Cecil Brown (America) beat Harry Peel (N.S.W.). At the conclusion, Uncle George hauled Brown before the microphone and started to make him talk to the listeners. Brown was shy and Mr. Saunders found it heavy going. "How did you feel when you saw Peel 50 yards ahead?" he asked. "All right," was the brief reply. "I suppose this is your first time in front of a microphone?" said Uncle George. "Yes," said Brown. "And I suppose you felt quite confident

that you would catch Peel?" Again Brown said "Yes." And to half a dozen more questions he continued to say "Yes" with an occasional "No."

At last in desperation the interviewer remarked: "I suppose you know plenty of people who will be listening-in to-night?" "Yes," said Brown. "Well," observed Uncle George, "speak to them."

No answer from Brown.

"Call any one you like," said Uncle George. Still the speed man had nothing to say. "Can't you think of anyone you would like to speak to?" "No."

"And isn't there anything special you'd like to say?"

Again Brown answered with the one word, and at that Uncle George gave him up.

The man who lost the race was a much better talker. Asked how he came to be beaten when he had gained a lead of 50 yards, he replied: "I think the bike overheated, towards the finish she began to sicken up. But I hope there will be a return match."

Some of these radio interviewers are amusing because the chief performer has nothing to say. Others talk so hard that the only way to stop them is to cut off the switch. And still they go on talking, but as no one can hear no harm is done.

TABLE OF USEFUL COIL WINDING DATA.

Now that solenoid or cylindrical types of coils are becoming popular the information given in this table will be of particular interest to many home constructors. It shows the number of turns to the inch for any gauge of wire of any of the standard forms of insulation. The figures are based on the wire being wound each turn close to its neighbour, and will assist to determine just how long a tube will be required to accommodate any given number of turns. This information will prove of very great value to all, so we advise you to keep this table handy alongside the workbench for reference:—

Standard Wire Gauge.	Enamelled.	Single Silk Covered.	Double Silk Covered.	Silk Covered.	Single Cotton Covered.	Double Cotton Covered.	Standard Wire Gauge.
10	—	7.04	7.55	7.95	7.04	10	
11	—	8.41	8.30	8.06	7.69	11	
12	—	9.95	9.22	8.93	8.48	12	
13	—	10.5	10.4	10.0	9.43	13	
14	—	12.1	11.8	11.4	10.6	14	
15	—	13.3	13.1	12.5	11.6	15	
16	15	14.9	14.0	14.1	13.2	16	
17	17.1	16.9	16.5	15.9	14.7	17	
18	19.8	20	19.4	18.5	17.2	18	
19	23.7	23.8	23.0	21.7	20.0	19	
20	26.1	26.3	26.0	25.3	21.7	20	
21	29.4	29.4	28.2	26.3	23.8	21	
22	33.3	33.3	31.8	29.4	26.3	22	
23	38.8	38.6	36.4	33.3	29.4	23	
24	42.1	42.1	40.9	35.7	31.3	24	
25	46.0	46.0	43.5	38.5	33.3	25	
26	50.6	50.6	47.6	41.7	36.7	26	
27	55.9	55.1	51.6	44.6	37.9	27	
28	61.4	60.4	56.2	48.1	40.2	28	
29	66.2	65.2	60.2	51.0	42.4	29	
30	73.3	72.0	67.1	54.4	44.7	30	
31	77.8	76.3	70.9	56.8	46.3	31	
32	83.0	81.3	75.2	63.3	50.5	32	
33	88.9	87.0	80.0	66.7	52.6	33	
34	98.0	93.4	85.5	70.4	54.9	34	
35	106.0	101.0	91.8	80.6	61.0	35	
36	116	110	102	88.2	64.1	36	
37	128	120	110	92.6	67.6	37	
38	143	133	121	100.0	71.4	38	
39	168	149	134	109	75.8	39	
40	180	159	142	114	78.1	40	

2FC Long Distance Tests--Remarkable Crystal Results

EXPERIMENTS are being conducted by Mr. A. J. Scott-Dack, chief wireless officer of the Orient liner "Oronsay," to determine the long distance strength of 2FC, Sydney. Recently, 2FC received a letter from a Mr. Stanley Dodman, of Frensham, Surrey, England, stating that, on October 27, at 12.5 p.m., Greenwich mean time, he listened to 2FC broadcasting the Californian Dance Band from the Palais Royal.

In view of this, Mr. Scott-Dack has agreed to listen to 2FC daily on the present trip of the "Oronsay," and after his arrival in England on January 24, 25, 26, and 27, at 7 a.m., Sydney time (equal to 9 p.m. on the previous night in London), special messages will be sent from 2FC for Mr. Scott-Dack, Mr. Dodman, and other listeners to hear—if they can.

After all the feat is practicable enough. Radio has already reached such a point that listeners who go to the trouble with their sets can pick up stations all over the world. In the near future, we may expect to have concerts in London broadcast to Australia, and relayed (re broadcast) by the Australian station that the every day listener can hear. In the meanwhile, the Sydney stations are on the air daily for longer periods even than the celebrated London station 2LO.

Mr. Scott-Dack's last report was as follows:—

"On the midnight of December 15, at about 640 miles (as crow flies) from 2FC I heard announcer say:—'This concludes our programme for to-night, 2FC closing down until 7 o'clock to-morrow morning.' Then the National Anthem was played on a piano. I heard two solos just before that but they were jammed out by 3LO. This reception was carried out on a crystal receiver. Your signals were strength R5. Then I switched over to a single valve receiver and your signal strength was about R.8."

"On December 16, when we were 40 miles off Adelaide (or nearly 1000 miles from 2FC) at 11.32 p.m. Sydney time, I heard "Valencia" played on a gramophone from 2FC. After that I

heard you announce a fox trot, but missed the name. I also heard you give the time, seven minutes to 12, and the chimes from "Big Ben," Sydney, at midnight, and then the National Anthem played on a piano. This was received first on a crystal receiver, and strength of signal was about R.5, with a little fading at times. I then switched over to a single valve receiver, and brought your signals up to about strength R.2. This I think you will agree is nearly a record for a plain crystal receiver. I personally have never heard of any station being picked up at a greater range on a crystal set.

"It is certainly very good for a one-valve set, as when I put the two-valve amplifier on, I could work you easily on a loud speaker. These tests I must say are getting very interesting, and I will look forward to the time when I shall be trying to pick you up in England."

COMBINED RADIO DEMONSTRATION.

THE first combined radio demonstration held recently at Bondi and Coogee beaches, was calculated to bring home to seaside holiday makers the value of a radio set in the open air.

Fourteen motor cars each with a radio set on board, were lined along

the sea walls facing the beach, pouring forth everything emanating from the broadcasting stations. A surf carnival was in progress at Bondi, and a description of it was being broadcast through 2BL, so that the people within range of the loud speakers could hear an account of what was going on in front of their eyes.

When the party of demonstrators moved on to Coogee, the Bondi Carnival was still being described, and promenaders gathered round the loud speakers to hear how the local club was faring in the competitions at the neighbouring surf. A feature of the afternoon was a thrilling account of the team's race through the surf. This was won by the Manly Club, of which "Roy" Charlton is a member. Charlton's swim was followed intently by thousands who could not see him, doubtless, also by many who had their receiving sets in action miles away from the beach.

Another feature of the afternoon's broadcasting which attracted the attention of the crowd was the description of Randwick Races by 2FC. Many who seemed to take no great interest in the musical items broadcast, or the description of the surf competitions, stood close up to the loud speakers to hear every word of the 2FC announcer.



Arthur Wendling and Molly Molloy, versatile instrumentalists and vocalists, who are among the latest recruits to broadcast from 3LO.

6WF Establishes World's Record Relay

By relaying, through U2XAF, and A6AG, the American station WGY over a distance of 13,000 miles the Perth station has created a new world's record for a broadcast relay. The relay was carried out six times during one month.

LISTENERS interested in broadcast relays from America, are notified that the next relay will be at 7.30 a.m. on Sunday morning next."

The very ordinary wording of the above announcement, made by 6WF a couple of months ago, indicated a very ordinary occurrence at that station. Perth listeners show no excitement now when hearing the announcer of WGY, Schenectady, U.S.A., reading market reports and discussing the price of eggs. One Sunday morning recently they had the amazing experience of hearing a jazz item announced, and relayed from the Tenerife Hotel, Albany, N.Y., on the previous Saturday morning.

Westralian Farmers have established a world record by relaying six transmissions from WGY. Each relay was carried out on 32.79 metres through WGY's short wave station 2XAF, and received in Perth at 5AG, operated by the manager of 6WF, Mr. W. G. Coxon. The feat is all the more remarkable when it is considered that the waves followed the dark portion of the globe, and the reception was obtained with three hours of daylight on this end. The distance traversed by the waves was over 13,000 miles, and no preparation was made by 2XAF. Previously, 2XAF had been relayed in South Africa, and by 5 Don N, Adelaide.

The first relay took place on September 13, and although interference was caused by a few local valve sets on the first occasion, the reproduction and volume was equal to that broadcast directly from the studio. Before the second attempt, however, an appeal was made to all enthusiasts to leave the air clear. Little trouble



A party of native Indians broadcast from AQG recently. The singing was rather mournful, due to the fact that their octave contains 22 semitones. One of the accompanying instruments was a harmonium or small organ which is played with one hand and pumped with the other. Two drums formed the rest of the accompaniment. They are known as tabla and are made either out of wood and skin or clay and skin.

has been experienced since then. No doubt this is because better results are obtained by tuning to 6WF instead of direct to the American station.

The crystal control used at 2XAF made possible a stable adjustment on the receiver picking up the music in Perth. On one occasion a windy morning made this difficult, but a remedy was found by staying the aerial more rigidly. The aerial consisted of a vertical tube, 15 feet high, with a counterpoise.

The receiver used employed the well-known Reinartz circuit, with a two valve low frequency amplifier, while a two valve choke capacity coupled amplifier was used to transmit over the land line to 6WF from the receiver. No difficulty was found in tuning to 2XAF.

During the relays all portions of the apparatus that could be earthed were done so, and the land line ran in lead covered wire for a distance of 50 feet until it was clear of the aerial system. No interference was caused whatever on the land line, due, no doubt, to the early hour on Sunday morning during which the relay was carried out. At this time the lines are most free of the disturbing induction noises of the city.

The music, after passing through

five valves, was still good. Only transmitters using crystal control on these short wavelengths could give satisfactory reproduction after such a great degree of amplification. Ordinary transmissions were in progress from 2XAF, and no preparations were made by either station for the feat.

An attempt was made to receive KDKA (at the time of the last special tests for Australia) during the evening with a view to re-broadcasting. Although at times ample volume was obtained, the reception was spoiled by rapid fading (every second or two) and atmospherics on the 60 metre band.

During the morning hours short wave reception from America is invariably good, and no fading was experienced whatever, and mostly there are not any atmospherics to interference on the short wave used by 2XAF. When special time signals were sent to Fitzgerald Smith, conducting an exploring party to the interior of Brazil, an opportunity was taken to give to 6WF's listeners, by medium of another amplifier and microphone, a few particulars of the relay. While the description was being done, the loud speaker in the receiving room gave a back ground of time signals.

Broadcast Progress

A statement of the policy of 3LO, Melbourne, in regard to relay stations is made in this article by our 3LO correspondent. The announcement that a Royal Commission is to enquire into wireless is also discussed.

THE policy of 3LO, Melbourne, has been to provide a broadcasting service which could be received on simple sets and if possible upon crystal sets with a reasonably sized aerial.

The first step in realising this object was the reduction of the wavelength of 3LO which has enabled the listeners-in in the metropolitan area to receive broadcasting signals of good quality on the simplest receiving sets. The signal strength of 3LO is so strong that listeners in the metropolitan area can hear both in the daytime and at night without serious interference from either atmospheric disturbances or ordinary electrical disturbances, due to tramways, lifts, etc., except when these are exceptionally bad. It is realised, however, that listeners outside the metropolitan area, particularly those in parts of Victoria most remote from Melbourne, are not in as favorable position for receiving the broadcasting service. They need to use more elaborate sets to receive the signals as the signals are of lower intensity and atmospheric and other interference is more serious and at distances over 50 miles, the fading of the signals is sometimes pronounced.

3LO, Melbourne, in association with the Postmaster General's Department, and the Amalgamated Wireless (A/sia) Ltd., recently made a survey of the reception in Gippsland and to the north of Melbourne as far as Albury. This survey showed that in the interests of listeners in the country, it has become necessary to take steps to provide and improve the service for them.

After a technical examination of the problem of giving an improved service to the country listeners, it

has been decided it would be best to follow the British practice of establishing relay stations from which the 3LO programmes would be simultaneously broadcast. It is believed that the British practice, in broadcasting, is the leading practice and is the best to follow. If four such relay stations could be established, one in Gippsland, in the neighbourhood of Maffra, a second in the neighbourhood of Wangaratta, and the third in the neighbourhood of Bendigo, and a fourth in the Western District, possibly near Hamilton, a greatly improved service would be given to the listener-in in the country.

There are however, a number of technical and economic difficulties which have to be considered before this system of relay stations could be established. Each of these stations would require, for a considerable portion of the day, the exclusive use of a telephone line suitable for the transmission of speech and music. In spite of these difficulties, however, plans are being made to establish a relay station at Bendigo and stations at the other centres which have been mentioned may follow.

Government Management of Broadcasting

AN announcement has been made to the effect that a Royal Commission is being appointed by the Federal Government to enquire into wireless. So far there is no official confirmation of the report, but there is no reason to doubt that the Government has actually decided to appoint the Commission.

There are some reasonable grounds,



Mr. P. W. Pearce, the physical culture expert, who broadcasts from 3LO.

however, for speculating on the possible outcome of the investigation. One of the proposals made by the organization that asked for the appointment of the Royal Commission is the setting up of another Government department to control radio—to take the control away from the Postmaster - General's Department and add another to the already numerous Federal Departments.

To some broadcasting enthusiasts this may seem quite a good proposal; to hold one department responsible for radio control without having any conflicting or competitive interest such as telegraph and telephone line communication to interfere with the unhampered administration of the wireless laws. A little reflection, however, will show that the proposed alteration may not be in the best interests of listeners.

The post office organization reaches everywhere; its officers are in every hamlet and town and its officials available to listeners almost at all times. Thus it is that the amount retained by the Government for selling the listeners' licenses, keeping the records, making inspections and sending us our renewal notices concerning li-

censes, is only two shillings. If another department, without the facilities of the post office were required to carry out these duties, obviously a great expenditure would be incurred in arranging for representatives or agents. The net result would probably be that the amount kept back from the license fee would be greater than that now held by the post office. That would mean that the license fees would be increased or the amount handed to the broadcasting companies would be reduced.

Any serious reduction of the companies' revenue would be reflected in a lessening of the activities or improvements of the service which a company would undertake only if the revenue were assured.

The establishment of a radio department would be the forerunner of direct control and management of the broadcasting services. It will repay listeners to consider well the possibilities of such a radical change. It is manifest to any thinking listener with any experience of broadcasting, that it is a business that can be undertaken best by people experienced in the entertainment business and familiar with the musical trade.

What is likely to be the result if a director of broadcasting attempts to run the service? Hedged in as he will be by red tape and other official restrictions; looking mainly at the administrative or official side of the business and totally inexperienced in the details of management of this tricky and never-stopping business—the interests and necessities of listeners are likely to be jeopardized.

THE ELECTROCULTURE of seeds is the educational subject chosen for country listeners for the next six weeks by 2GB. These lectures have been prepared by the inventor of the XX treatment, Mr. A. C. Bennett, who established the first and probably the only electric nursery in Australia. This method is a great advance on the old system practiced in earlier experiments of electroculture, being a ray system using high frequency current. The first lecture, "The Seed and the Cell," will be given on Monday, January 8, at 7.30 p.m.

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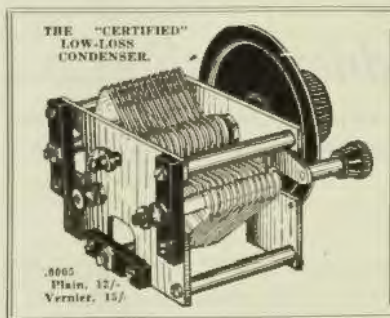
A ONE VALVE SET

As described in this issue of "Wireless Weekly."

Here is a list of high-grade parts.

	£	s.	d.
1 Polished Bakelite Panel, 12 x 7 x 1/8 inches	0	5	3
1 High grade S.L.F. Low Loss Condenser, "Quaker" .0005	0	10	9
1 Black Dial, 4 inch	0	2	4
1 Pilot Midget Condenser, with brass plates	0	5	0
1 Lissen or Watmel Variable Gridleak	0	4	3
1 Mica Grid Condenser .00025 with clips	0	1	9
1 Valve Socket, UX standard	0	2	3
1 Ajax wire wound 30 ohm Rheostat	0	2	1
3 Inches of 3 inch diameter Radion Tubing	0	2	6
1 lb. reel 24 gauge D.C.C. Wire	0	1	7
1 Bakelite strips and 4 black terminals	0	2	0
1 Wooden baseboard, with cleats, 11 x 7 inches	9	1	0
1 Choke Coil (Apex 200 turns)	0	2	10

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A ONE VALVE AMPLIFIER
will make that crystal or one valve set

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Here are the parts required

	£	s.	d.
1 Bakelite panel, 8 x 6	3	0	
1 High grade transformer	13	6	
1 30 ohm rheostat	2	1	
1 Set terminals	1	9	
1 Valve socket, 199	1	6	

Post your order NOW 21 10

AERIAL GEAR OF QUALITY

	£	s.	d.
Aerial Wire: 3 strands 20 gauge Copper, per 100 ft.	0	2	6
Enamelled Aerial Wire: 7 strands 22 gauge per 100 ft.	0	4	9
Phosphor Bronze Aerial or Loop Wire: 50 strands, per 100 ft.	0	3	0
Electron Aerial Wire: Use it anywhere, per carton	9	3	6
Aerial Insulators: White porcelain egg shape, per dozen	0	1	0
Earthing Switches: Porcelain S.P.D.T. switches	9	1	11
Lightning Arresters: The Parkson	0	2	0
Better Grade Arresters: The Electrad	0	3	9

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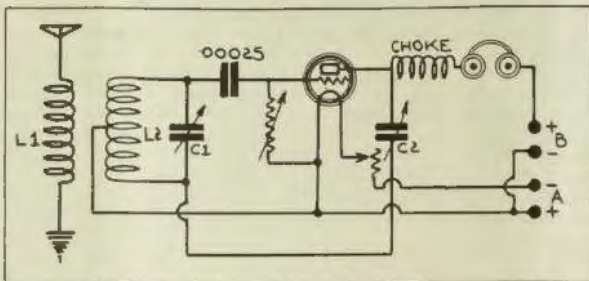
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Convert Your Crystal Set Into A Split-Coil Single Valve Receiver



LAST week we described in these pages a Capacity Coupled Single Valve set making its appeal to many radioists residing close to a high powered broadcasting station. As may be gathered from the title, the method of coupling used was by means of a very small capacity fixed condenser, which allowed maximum selectivity.

This week another single valver will be described, this time employing standard method of inductive coupling. To this end there is employed a honeycomb coil which is inductively coupled to a grid coil wound on the solenoid principle. The aerial or honeycomb coil is aperiodic, that is to say, it is untuned and is fixed in close proximity to the solenoid coil, thus conveying the energy to the solenoid coil inductively.

An arrangement of this coil is very simple indeed, besides being remarkably efficient. The cost of parts will be very low, and here is an opportunity for the crystal man to convert his receiver into a one valve set, with a minimum of expense. Not only is this split coil receiver excellent for the local stations, but granted that a reasonably good aerial earth system is installed one or two of the long distance stations will be receivable.

It is a well known fact that the popular three-coil receiver is very difficult to control on the long distance stations just now. This is be-

cause of the coarseness of reaction which is of the "swinging coil" method and materially upsets the grid circuit tuning adjustment whenever the reaction adjustment is varied.

This split coil receiver practically overcomes this difficulty, as a very fine, smooth adjustment of the reaction is possible without appreciably affecting the grid circuit tuning. The aerial is a form of the popular Rein-

artz and is similar in many respects to the circuit of the receiver described last week. The reaction adjustment is controlled by a small midget condenser marked C3 on the diagram. This is very effective indeed and when used in conjunction with the variable grid leak the receiver may be made to oscillate of the whole waveband of the broadcasting stations.

From the circuit diagram it will be seen that only one .0005 mfd. C1 (23 plate) variable condenser is used. The aperiodic aerial coil is L1, L2 being the grid coil, the solenoid already referred to. The whole of this coil is tuned by condenser C1, the centre tapping being taken direct to the filament positive. The bottom of L2 is fed through midget condenser C3 to the plate of the valve, thus producing reaction. Note the position of the variable grid leak—this is most important as is also the inclusion of the choke coil L3. This choke coil takes the form of a honeycomb coil of the value of approximately 200 turns, although as low as 75 turns may be used. This is proved on trial. The choke coil is necessary to force the reaction through the circuit in the proper manner, but may be dispensed with if one stage of audio frequency is added to this receiver. In this instance, it frequently happens that the primary winding of the transformer is sufficient in itself to act as a choke.

LIST OF PARTS.

- 1 Panel, 12 x 9 x 3/16 inches
- 1 .0005 Quaker variable condenser.
- 1 30-ohms Ajax rheostat.
- 1 Lissen variable grid leak.
- 1 Midget condenser (preferred).
- 2 Fixed panel plugs.
- 1 3-inch length of 3 inch diameter tubing.
- 4 ozs. No. 24 gauge DCC wire.
- 1 Valve socket.
- 1 .00025 grid condenser.
- 1 Terminal board.
- 2 Telephone terminals on board.
- 1 Baseboard, 11 x 9 x 3/16 in.
- 1 .00025 honeycomb coil.
- 1 50-turn honeycomb coil.
- 1 200-turn honeycomb coil.
- Busbar, screws, etc.

The components used in this receiver will be found in this article. Considering that quite a number of crystal users will convert from their present sets to this receiver, we have taken up quite a lot of room both for panel and baseboard. Also to further simplify matters the receiver has been photographed before completion, that is, the baseboard with the baseboard parts, and the panel with its own parts. To further assist the constructor a rule has been laid along each article and photographed, to show the dimensions as well as the different distances of each part. Only a plan view of the baseboard is

given, as we feel sure that this will suffice.

Construction.

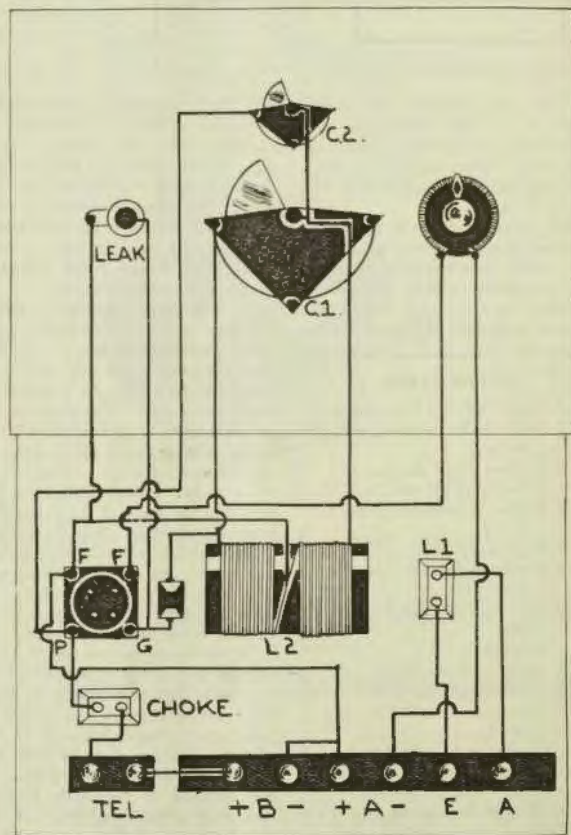
The construction of this receiver does not call for any special skill, either mechanical or electrical. Gather all the components itemised on the list and place them handy to you on the table. Firstly, wind the grid Coil L2. For this purpose use the three inch tubing and the 20 gauge wire. If cardboard tubing is used, bake it in an oven to dry out any moisture and when warm coat it inside and outside with shellac varnish. Radion or Dilerto tubing need not be treated in this fashion.

However, at a distance of $3/8$ inch from one edge pierce or drill two small size holes, half an inch apart, and thread the end of the wire through these holes to hold the wire securely. Now wind on 50 turns of wire, taking a tapping at the 28th turn. This is best done by continuing the 25th turn of a space of half an inch, as shown in the photograph. Secure the last turn as you did the first and leave coil aside.

Next mount the fixed panel plugs on to short strips of dilecto or radion as also shown. One of these plugs is for the aerial coil, whereas the other is used for the choke coil.

Now mark out and drill the panel, following out the panel diagram given for the purpose. A nail or a centre-punch used to make a small indentation will allow the drill to enter without slipping. Always remember to use a light pressure and a quick speed when drilling dilecto or radion, and thus will the difficulty of splitting and tearing the panel be easily overcome. Should the panel have very rough edges, remove these with the use of a carpenter's scraper in preference to a file, which after all leaves a somewhat coarse surface, whereas the scraper on the other hand, leaves a very nice smooth edge which is worth while. Where counter-sinking is called for use a larger size drill, say, about half an inch in diameter, and counter-sink with this, taking care, of course, not to drill right through the panel.

When the panel has been prepared, mount thereon the various components, the rheostat, then the grid leak, then the midget condenser, and finally the large size condenser, C1. The condenser actually used in this receiver is of the one hole mounting type, thus precluding the necessity of employing fixing screws, but perhaps the condenser you may wish to use uses fixing screws, in that case the necessary holes will have to be provided and countersunk. As it is advisable to employ a vernier dial in this receiver, it will be found that a fixing hole for the catch screw is necessary. Use the template provided with the dial, to locate the position for this hole and drill accordingly. Perhaps this catch screw may



Wire from this wiring diagram.

have to be installed before the variable condenser is mounted, but this you can determine for yourselves according to the particular brand of vernier dial used.

Components on Baseboard.

It is always wise to treat the baseboard to one or two coats of shellac varnish before mounting thereon the components. A few moment's study of the photograph of the baseboard will show the positions of the various parts. To determine these correctly mount your panel to the front edge of the baseboard using three screws for this purpose. These screw holes are not shown in the illustration of the panel layout, but can easily be located by yourself. When the panel is in position fix the plug for L1 in its position. Two small pillars or distance pieces made from short lengths of 3/8 inch diameter fibre tubing, or for that matter, the insulation portions of wander plugs provided with well known B batteries. It will be found wise when the connections for this plug are underneath the small piece of dielecto on which they are mounted to press into service two small soldering lugs for simplicity of connection.

The position of the aerial coil plug having been satisfactorily determined and this plug correctly mounted, it is next necessary to place the grid coil L2 in its proper position. As the aerial coil must be tightly coupled to the grid coil plug a 50 turn coil into this plug and measure the distance from the baseboard to the bottom of this coil. Two brackets will have to be formed from some half inch by one-sixteenth inch brass strip, and of such a length that the bottom of the solenoid coil is on the same level as the bottom of the honeycomb coil. These brackets are very easily formed and should be attached to the outer edges of the cylindrical coil by means of a short bolt and nut. When mounted in position, screw the cylindrical coil in position on the baseboard, keeping your mind all the time that the honeycomb coil should be as close as possible to the other coil.

Now, instal the valve socket in position, and also the choke coil plug.

and also the terminal boards. It will be noticed that once again the telephone terminals are placed at the back of the receiver, and this keeps panel free from any dragging wires in any way.

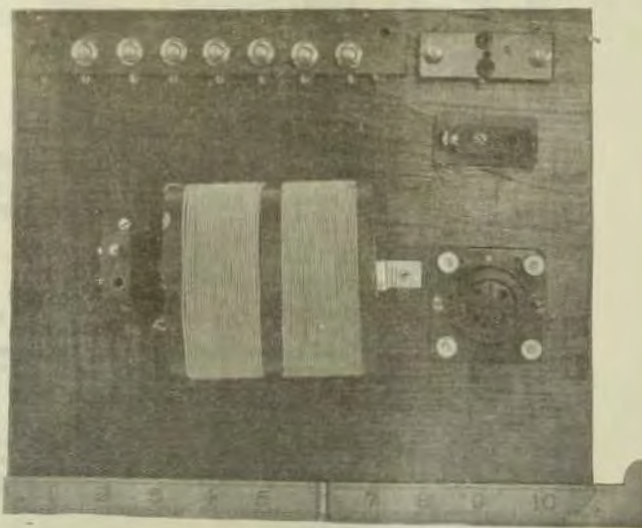
Wiring.

When everything has been placed in its correct position the wiring of the receiver may now be proceeded with. There are two different methods of wiring, one being the usual square busbar right-angled method, the other the straight-out, point to point wiring, varnished cambric spaghetti being required to enclose the connecting wire. It is your privilege to choose whichever method you prefer, and carry on with the wiring as itemised in the back of panel wiring diagram. As this is very clear it will not be necessary to describe this again in this article. It will be of great assistance to you when wiring to mark off the wiring diagram each wire as it is inserted in the set. This ensures that every wire would be in this position and not one left out. The moving elements of the midget condenser should be connected to the moving plates of the

grid tuning condenser and from thence to that end of the solenoid coil which is remote from the grid of the valve. The fixed plates of the midget reaction condenser should be taken to the plate of the valve. Otherwise, everything else is in perfect order.

Testing the Set.

Carefully recheck all your work, particularly the wiring, and then test the set by hooking on to the aerial and earth and connecting up both batteries. Never under any circumstances allow the B battery to be connected to the A battery terminal, as this will mean that the valve will be rendered useless. Insert the valve in its socket, and gradually turn up the rheostat. Into the aerial coil plug insert a 35-turn honeycomb coil, and the choke coil plug should be provided with, say, a 200 turn honeycomb coil. When the telephones are connected to their respective terminals, a distinct "pluck" should be heard in the phones when the second tip is inserted in its terminal. This proves that the B battery portion of the circuit is quite all right. Now slowly turn the main tuning dial until the local station is heard. In-



The baseboard layout. The rule will assist in gauging the measurements.

PHILIPS HIGH TENSION SUPPLY UNIT

A Real "B" Battery Eliminator

Separate terminals for detector and Low Frequency circuits, with a Rheostat on each circuit.

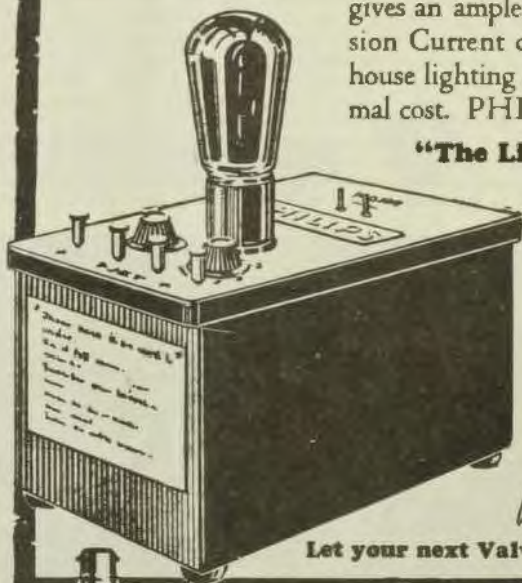
THIS unit will eliminate "B" battery worries entirely. No more faulty reception — no more disappointment or spoiled programmes. Philips Unit gives an ample supply of High Tension Current direct from your A.C. house lighting circuit at an infinitesimal cost. PHILIPS is

"The Lifetime Unit"

Ask your dealer for a demonstration.

Obtainable at all
Radio Dealers.

£9/15/-
each,
complete.



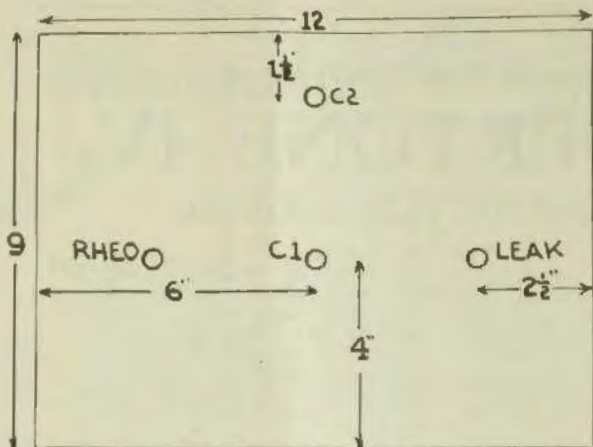
Let your next Valve be a PHILIPS



PHILIPS

LAMPS AND RADIO





The panel layout. Follow these dimensions when marking out and drilling.

crease the filament rheostat setting until maximum signal strength is obtained in this manner. Finally, find the correct adjustment for the Midget tuning condenser, a distinct increase in volume being discernible as this condenser is swung through its entire range.

Seek the second station now, paying distinct attention to the variable grid leak and the reaction condenser. After having familiarised yourself a little more with this receiver you will find that certain adjustments of the midget condenser will set up oscillation in the receiver. The best position for reception is just off this oscillation point, but it may be pointed out that with certain valves quite a lot of high tension is required on the plate to get this set to oscillate at all.

There is no mistaking oscillation when it occurs, as frequently the set breaks into oscillation with a slight "pop," which sound is repeated as the reaction condenser is turned around again. If this "pop" is very pronounced and is difficult to remove, decrease the plate voltage and lower the filament current until the set slides into oscillation, the only indication of which being the distortion of signals which results.

Test Report.

The actual set described here, tested at Marrickville, proved that it was well worth building. All the local stations were received at remarkably good strength, and 4QG Brisbane could be heard also at reasonably good strength for a one valve receiver; a 50-turn coil in the aerial circuit

was necessary to receive 3AR, Melbourne, which was heard very weakly and amidst considerable static. This also precluded any sign of 5CL, Adelaide, but after all this is only a one-valve set, from which one must not expect too much. Summer conditions are not conducive to good inter-State reception in any way, and it is quite possible that had clear nights been available when testing this receiver the results would have been surprising.

Altogether this receiver is most satisfactory, and will be found a considerable improvement on the average one-valve receiver so popular nowadays.

IT IS NINE months since "Rose Marie" opened in Sydney. Not for a long time has a musical comedy had such a phenomenal run, and 2FC listeners are indeed fortunate in again hearing its popular numbers over the air. The second act will be broadcast on Friday, January 28.

2FC will describe every ball that is bowled in the forthcoming match between N.S.W. and South Australia, beginning on Friday, January 7, and carrying through to the finish of the match.



The back of panel view of this receiver.

The New and Improved
WONDERTONE IV.
 HOME CONSTRUCTION RECEIVER

is the result of exhaustive experiments to place before the Australian public a receiver that does not require any technical knowledge whatever to build. With our new and simple building instructions a boy of 7 can build it. Furthermore, the circuit employed is especially designed for the combination of simplicity of Control—Distance—Volume—Clarity—and Selectivity. No jamming of stations with the new and wonderful Wondertone HCIV., and no special tools are required, only a screw-driver, pliers. The connecting wires are all cut and prepared to the required lengths and by following the instructions it is impossible to make a mistake.

Easy
to
Build



Easy
to
Use

Illustration of a completed "Wondertone" H.C.IV Receiver

	£	s.	d.
"Wondertone" H.C.IV parts ready to assemble with 60 ampere hour accumulator	19	17	6
"Wondertone" H.C.IV parts ready to assemble with Dry Cell "A" Battery	17	12	6
Manhattan Loud Speaker suitable for "Wondertone" IV	1	12	6

The components include everything necessary for a complete receiver such as Stained Maple Cabinet, Bakelite Panel drilled and engraved, heavy duty "B" Battery, Accumulator or Dry "A" Battery, "C" Battery, "B" Battery Voltmeter, Hydrometer (for accumulator), Headphones, Battery Connecting Cable and Aerial equipment.

SEND FOR ILLUSTRATED LEAFLET.

NEW ACCESSORY PRICE LIST R7 NOW AVAILABLE. POSTED FREE UPON REQUEST.

Your own set rewired by Experts—Prices on application.

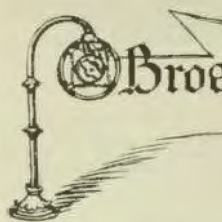
WILES WONDERFUL WIRELESS

BRANCH:
23 PITT ST.

Electrical Stores:
PITT & GOULBURN STS.,
SYDNEY

BRANCH:
384 PITT ST.

MAIL ORDER DEPT., 60 GOULBURN STREET.



Broadcasting Programmes

for the Coming Week



Friday, Jan. 7

2 FC

EARLY MORNING SESSION.

- 7.—Chimes of "Big Ben" from the Studio.
- 7.5.—Music from the Studio.
- 7.10.—Official Weather Forecast, Rainfall, temperature, Astronomical Memoranda, Shipping Intelligence, Mail Services.
- 7.25.—Investment Market, Mining Share Market, Metal Quotations.
- 7.35.—Wool Sales, Breadstuffs Markets, Interest Markets, Produce Markets.
- 7.45.—"Sydney Morning Herald" News Service.
- 8.—"The Chimes of 'Big Ben'."
- "Chorus" Talk by Mr. J. K. Bowell.
- Close down.

MORNING SESSION.

- 9.15.—The Chimes of 2FC and Programme Announcements.
- 9.20.—Music from the Studio.
- 9.30.—Marching Music for School Children.
- 9.45.—Music from the Studio.
- 10.—"Big Ben," Australian Press Association and Reuters's Cables.
- 11.—Music from the Studio.
- 11.15.—Cooking Talk and Recipes, by Miss Ruth Furst.
- 11.30.—Marching Music for School Children.
- 11.35.—Close down.

MIDDAY SESSION.

- 13.—"Big Ben" and Announcements.
- 12.5.—Stock Exchange—First call.
- 12.10.—Music from the Studio.
- 12.30.—Marching Music for School Children.
- 12.40.—Music from the Studio.
- 12.45.—From Farmer's Oak Hall, Oak Hall Trio.
- 1.—"Big Ben" and Weather Intelligence.
- 1.3.—"Evening News" mobility news service, Producers' Distributing Report.
- 1.20.—The Oak Hall Trio.
- 1.25.—Stock Exchange second call.
- 1.30.—Marching Music for school children.
- 1.35.—Music from the Studio.
- 1.40.—The Oak Hall Trio.
- 2.—"Big Ben." Close down.

AFTERNOON SESSION.

- 2.30.—Chimes of 2FC.
- 2.35.—Music from the Studio.
- 2.40.—From Farmer's Tea Rooms: Miss Diana Booth, soprano.
- 2.45.—Instrumental music from the Oak Hall Trio.
- 2.55.—Studio Music.
- 3.—Miss Muriel Humphries, contralto.
- 3.45.—A Music Talk, by Mr. Ewart Chapple.
- 4.—From Farmer's Tea Rooms: Miss Diana Booth, soprano.
- 4.25.—Oak Hall Instrumental Trio.
- 4.35.—Studio Music.
- 4.45.—Miss Muriel Humphries, contralto.

- 4.45.—Stock Exchange, third call.
- 4.45.—Close down.
- EARLY EVENING SESSION.
- 6.45.—The Chimes of 2FC.
- 5.40.—The "Hello Man" talks to the children.
- 6.30.—A serial story for the older children.
- 6.45.—Dinner music from Farmer's Dining Hall, vocal and instrumental.
- 7.—From the Studio: Last minute sporting information by 2FC Racing Commissioner.
- 7.10.—From the Studio: "Evening News" late news service and sporting information.
- 7.30.—Dulgey's Market Report (Wool, Wheat, Stock), Fruit, and Vegetable Markets.
- 7.40.—Close down.

- 10.8.—Miss Annie Hughes, character actress.
- 10.15.—The Lyceum orchestra, under the baton of Mr. Emanuel Aaron.
- 10.34.—From the Studio: Mr. Ewart Chapple, 13 pianoforte solos.
- 10.40.—Miss Annie Hughes, in a comedy sketch.
- 10.45.—The Wentworth New Symphonic Orchestra in dance numbers, Mr. Sydney Simpson, conductor.
- 10.50.—Celebrity records.
- 11.—"Big Ben." 2FC Dance Band, in dance numbers, until midnight.
- 12.—National Anthem. Close down.

2 BL

EARLY MORNING SESSION.

- 7.15.—G.P.O. Clock and Chimes.
- 7.18.—Musical Programme from the Studio.
- 7.19.—Physical Training and Health Exercises.
- 7.25.—Health Hints.
- 7.30.—Physical Training and Health Exercises.
- 7.40.—G.P.O. Clock and Chimes.
- 7.48.—Weather Report.
- 7.49.—Sporting Information.
- 7.50.—Broadcasters' Special News Service.
- 8.—G.P.O. Clock and Chimes. Close down.

MORNING SESSION.

- 10.—G.P.O. Clock and Chimes.
- 10.1.—Weather Report.
- 10.3.—Musical programme from the studio.
- 10.20.—News Service from the "Daily Telegraph."
- 10.35.—Music from the Studio.
- 10.35.—Social Story.
- 11.—G.P.O. Clock and Chimes.
- 11.1.—News from the "Daily Telegraph."
- 11.15.—Rabbit Market Report.
- 11.17.—Fish Market Report.
- 11.18.—Vegetable Market Report.
- 11.21.—Fruit Market Report.
- 11.24.—London Metal Quotations.
- 11.27.—London Dairy Production and Egg Market Report.
- 11.30.—Chimes in call by wireless.
- 11.32.—Information re Interstate and overseas Mails.
- 11.35.—Shipping Information—arrivals and departures.
- 11.35.—Spiriting Talk.
- 11.40.—Women's Session, conducted by Mrs. Jordan's Social Notes.
- 11.50.—Mrs. Jordan replies to correspondents.
- 12.—G.P.O. Clock and Chimes.
- 12.1.—Talk, Mrs. Jordan.
- 12.25.—News from the Sun.
- 12.30.—G.P.O. Clock and Chimes.
- 12.31.—Sydney Stock Exchange call.
- 12.35.—Sun Newspapers News Service.
- 12.45.—"Kidlers" Instrumental Quartet.
- 1.30.—G.P.O. Clock and Chimes.
- 1.31.—Weather Report.
- 1.32.—Stock Exchange Calls.
- 1.45.—Music from the studio.
- 2.—G.P.O. Clock and Chimes. Close down.

AFTERNOON SESSION.

- Racing information broadcast by courtesy of the "Sun."
- 3.—G.P.O. Clock and Chimes.
- 3.1.—Weather Report and Forecast by courtesy of Genl. Meteorologist.
- 3.5.—Social Notes from the "Sun."
- 3.10.—"Sun" Newspapers' News Service.
- 3.15.—Civil Service Stores' Trio.
- 3.30.—G.P.O. Clock and Chimes.
- 3.31.—"Sun" Newspapers' News Service.

- Farmer's Service, Sydney, call sign 2FC, wave length 442 metres.
- Broadcasters Ltd., Sydney, call sign 2BL, wave length 353 metres.
- Traders Hall Broadcasting Station, call sign, 2KY, wavelength, 280 metres.
- Theosophical Broadcasting Service, call sign, 2GB, wavelength, 314 metres.
- Burgin Electric Coy. Ltd., Sydney, call sign, 2BE, wavelength, 316 metres.
- Broadcasting Co. of Australia, Melbourne, call sign 3LO, wave length 371 metres.
- Associated Radio Co., Melbourne, call sign 3AR, wave length 484 metres.
- Queensland Radio Service, Brisbane, call sign 4QG, wave length 385 metres.
- Central Broadcasters Ltd., Adelaide, call sign 5CL, wave length 395 metres.
- Radio Broadcasting Co. of N.Z., Auckland, call sign 1YA, wave length 429 metres.
- Westralian Farmer's, Perth, call sign, EWF, wave length 1250 metres.
- Tasmanian Broadcasting Pty. Ltd., Hobart, call sign 7ZL, wave length, 468 metres.

NIGHT SESSION.

- 7.55.—Announcements.
- 8.—"Big Ben." Broadcast from the Lyceum Picture Theatre, items by the orchestra, under the baton of Mr. Emanuel Aaron.
- 8.30.—From the Studio: Mr. Harold Tollmarche, baritone.
- 8.34.—Miss Peggy Dunbar, contralto.
- 8.38.—Tilton and West, "The Joy Boys," entertainers.
- 8.45.—Mr. Norman Frances, tenor.
- 8.55.—Mr. Harold Tollmarche, baritone.
- 9.—Mr. Ewart Chapple, in pianoforte solos.
- 9.8.—Miss Peggy Dunbar, contralto.
- 9.15.—Miss Annie Hughes, English Character Actress, in a Comedy Sketch.
- 9.25.—From the Lyceum Picture Theatre, the Union Theatres' Master Attraction.
- 9.40.—From the Studio: Mr. Harold Tollmarche, baritone.
- 9.44.—Tilton and West, "The Joy Boys" in song and patter.
- 9.55.—Mr. Norman Frances, tenor.
- 10.4.—Miss Peggy Dunbar, contralto.

- 3.45—Musical Programme from the Studio.
4.—G.P.O. Clock and Chimes.
4.1—Civil Service Stores' Trio.
4.15—Serial Story.
4.20—G.P.O. Clock and Chimes.
4.31—Music from the Studio.
4.45—Producers' Distributing Society's Fruit and Vegetable Report.
4.50—Shipping information when available.
4.52—Day's racing resume on race stars.
4.55—News from the "Sun."
4.58—Resume of night's programme.
5.—G.P.O. Clock and Chimes; close down.

EARLY EVENING SESSION.

- 5.45—G.P.O. Clock and Chimes.
5.45—Uncle George and the Kiddies.
6.8—The pupils of Miss Monica Scully will entertain the Kiddies.
6.40—Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison.
Special Country Session.
7.—G.P.O. Clock and Chimes.
7.1—Australian Mercantile Land & Finance Co's. Report.
7.5—Weather Report and Forecast by courtesy of Govt. Meteorologist.
7.10—Stock Exchange reports.
7.14—Producers' Distributing Society's Vegetable and Fruit Market Report.
7.18—Fruit and Vegetable Market Report ("Sun").
7.25—Grain and Poultry Report ("Sun").
7.28—Dairy Produce Report ("Sun").
7.30—Country News from the "Sun."

NIGHT SESSION.

- 8.—G.P.O. Clock and Chimes; Broadcasters' Topical Chorus.
8.3—Joy and Eric Butterfield, steel guitars.
8.13—Mr. Edward Barry, baritone.
8.21—Mr. Douglas Graham, Scottish comedian.
8.28—Broadcasters' Trio.
8.35—Miss C. L. Robertson, electricianist.
8.47—Miss Geraldine Dacey, soprano.
8.55—Resume of following day's programme.
Weather report and Forecast by courtesy of Mr. C. J. Mars, Govt. Meteorologist.
9.—G.P.O. Clock and Chimes.
9.1—Broadcasters' Trio.
9.11—The Senior Sporting Expert of the Sun will talk on the prospects of Saturday's racing.
9.31—Joy and Eric Butterfield.
9.45—Interval.
9.48—Miss Geraldine Dacey.
9.55—Mr. Douglas Graham.
10.—G.P.O. Clock and Chimes.
10.1—Miss C. L. Robertson.
10.8—Mr. Edward Barry.
10.15—Al Hammett and the Ambassadors Dance Band broadcast from the Ballroom of the Ambassadors. During the intervals between dance news reports by courtesy of the Sun Newspapers will be broadcast.
12.—G.P.O. Clock and Chimes; close down. National Anthem.

2GB

- 6.45—Talks to children, by Uncle Joe.
7.15—"Modern Greece," by Madame Chryssan-Anopoulos.
7.40—Topical Topics.
7.48—Announcements.
8.—Instrumental Trio.
8.10—Address by J. J. Van der Loouw.
8.30—Violin solos, by Monica Hoeder.
8.40—Piano solos, by Dorothy Spark.
8.50—Talk on radio.
9.—Instrumental Quartette.
9.15—Announcements.
9.25—Violin solos by Dan Scully.
9.30—Selections from Cavalier's Rusticana, and short talk.
10—"Great Thoughts from Great Minds."

3AR

MORNING SESSION.

- 11.30—British Official Wireless Press, received

- from Rugby Super Wireless Station, England; Express Train Information; "Age" News Bulletin, exclusive to 3AR.
12.—Time Signal Chime. Studio Barometer Readings. First Weather Forecast. Events of the day; Outdoor Thermometer Readings.
12.5—Musical selections from the studio.
12.55—Market Reports, Stock Exchange news.
12.40—Musical selections.
12.55—Shipping movements. Mail notes.
1.—Close down.

AFTERNOON SESSION.

- 3.30—Musical selections from the Studio. The Hon. Breckley Quartette.
4.—Time Signal Chime from G.P.O. The Hon. Breckley Quartette.
4.30—Mr. R. Stanley Haines, Gardening Talk to Children.
4.55—Evening Amusements.
5.—Time Signal Chime. Studio Barometer and Outdoor Thermometer Readings.
Close down.

EARLY EVENING SESSION.

- 6.45—Children's Corner, by Uncle Bud.

EVENING SESSION.

- 7.45—British Official Wireless Press. Studio Barometer Readings. Racing Anticipations and Sporting Events, reviewed by "Field Glasses."
8.—Time Signal Chime from G.P.O.
Mr. Eric Ticken, pianist.
8.15—Mr. Wallie Lucas, male soprano.
8.17—Mr. Milo Inevino, baritone.
8.24—Mr. Anthony Lucas, tenor.
8.31—Mr. R. Stanley Haines, Gardening Talk
8.40—Mr. Will Phillips, tenor.
8.53—Miss Hilda Parsonson, electricianist.
9.—Miss Ina Allen, soprano.
9.7—Mr. Eric Aitken, more piano-plant effects.
9.17—Mr. Milo Davino, baritone.
9.24—Mr. Anthony Lucas, tenor.
9.31—Mr. Wallie Lucas, male soprano.
9.34—Mr. Will Phillips, tenor.
9.45—Miss Hilda Parsonson, electricianist.
9.52—Miss Ina Allen, soprano.
10.—Time Signal from G.P.O.
Studio Barometer readings.
10.1—Leggert's Ballroom Orchestra, relayed from Greville Hall, under the leadership of Mr. Harry Nangle.
11.—Time Signal Chime. Close down.

4QG

MIDDAY SESSION.

- 12.15—Time-in.
12.25—Time Signal.
1.—Market Reports. Weather information "The Daily Mail" news; "The Daily Standard" news.
1.5—Timon Hied Carlton: Lunch music from the lounge, played by Hotel Carlton Symphony Orchestra.
2.—Close down.

AFTERNOON SESSION.

- 3.50—From Hotel Carlton: The Hotel Carlton Symphony Orchestra.
4.15—From the Studio: "The Telegraph" news.
4.30—Close down.

EARLY EVENING SESSION.

- 6.—"Daily Standard" news. Announcements.
6.30—The Children's Session—Stories by "The Sandman."
7.—From the Council of Agriculture Studio: Market Reports. Lecture: "Agriculture in Germany—A Queensland's Impressions" No. 1 of series—Mr. J. F. Reid, Editor, "Queensland Agricultural Journal."
7.30—From the Studio of 4QG: Stock Reports. Announcements. Weather Information.
7.50—Stock Reports. Weather News. Announcements.

NIGHT SESSION.

- 7.45—Lecture Session.
8.—The Federal Band.
8.—Metropolitan Weather Forecast. Week-

end road information for motorists, officially supplied by the Royal Automobile Club of Queensland, Studio Orchestra.
10.—The "Daily Mail" News; Weather News.

6WF

- 12.30—Time-in.
12.35—First Local News Bulletin. Market Reports. Cable News.
1.—Time Signal from the Perth Observatory.
1.—Weather notes supplied by the Meteorological Bureau of Western Australia.
1.2—Studio Septette.
2.—Close down.
3.30—Time-in.
3.35—Musical programme.
4.30—Close down.
7.—Time-in.
7.5—Musical evening for the kiddies, by Auntie Evelyn; with Uncle Henry, Leslie, Perry and Duffy.
7.35—Stock and Share intelligence. Market reports. Cables, news by courtesy of "The Daily News" Newspaper Co.
8.—Time signal from the Perth Observatory.
8.1—Weather notes, supplied by the Meteorological Bureau of Western Australia.
8.2—Talk: "Hooks of the Month," by Mr. J. P. Bathurst.
8.10—Popular night.
9.45—"Health" talk, by Mr. H. S. Hutton, of the Hutton School of Physical Culture.
10.—Second News Bulletin, supplied by courtesy of "The Daily News" Newspaper Co.
10.30—Close down.

7ZL

MORNING SESSION.

- 11.—G.P.O. Clock Chime. The "Mercury" news, stock market, shipping commercial intelligence, weather information.
12.—G.P.O. Clock Chime. Close down.

AFTERNOON SESSION.

- 3.—G.P.O. Clock Chime.
Musical items from the Studio.
3.30—Hobart Stock Exchange quotations.
3.55—Weather information.
4.—G.P.O. Clock Chime. Close down.

EVENING SESSION.

- 7.—Children's Corner. "Big Brother" chats to his Pal.

NIGHT SESSION.

- 9.—G.P.O. Clock Chime. "The Mercury" special Tasmanian news service. Railway auction produce sales. Weather information.
8.5—Hobart Stock Exchange quotations.
8.10—Weekly Gardening chat, by Mr. George Nation.
8.30—Concert from the Studio.
8.15—Produce reports from Roberts & Co., Ltd., Murray Street, Hobart, Tasmanian District Weather reports.
9.50—"The Mercury" special interstate news service. Weather synopsis. Station announcements; Week-end travellers' information; National Anthem.

Saturday, Jan. 8

2FC

EARLY MORNING SESSION.

- 7.—"Big Ben" and announcements.
7.15—Studio music.
7.10—Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, commercial news, mail services.
7.25—Investment markets, mining share market, metal quotations.
7.35—Wool sales, breadstuffs markets, interstate markets, produce markets.
7.45—"Sydney Morning Herald" news service.

8—"Big Ben." "Chamro" Talk, by Mr. J. K. Powell.

MORNING SESSION.

- 9.15—The Chimes of 2FC.
- 9.20—Studio Music.
- 9.45—Last minute sporting information, by the 2FC Racing Commissioner.
- 10—"Big Ben" and announcements.
- 10.15—Late "Sydney Morning Herald" news service.
- 10.15—Studio music.
- 10.45—A morning reading.
- 11—"Big Ben," Australian Press Association and Reuters's Cable Services.
- 11.15—Studio music.
- 11.15—A Gardening Talk by Mr. G. J. Lockyer ("Red Gum").
- 11.30—Close down.

AFTERNOON SESSION.

- The usual sporting information, including Racing, Interstate Cricket, Grade Cricket, Cycling, etc. During the afternoon, items from the Studio, and also items from the Wentworth New Symphonic dance orchestra, under the direction of Mr. Sydney Simpson.
 - 4.45—Resumes of Sporting Events.
 - 5—Close down.
- EARLY EVENING SESSION.
- 5.45—The Chimes of 2FC.
 - 5.50—The "Hello Man" talks to the children.
 - 6.20—A serial story for the older ones.
 - 6.45—Dinner Music.
 - 7—Sporting information by 2FC Racing Commissioner.
 - 7.10—Late "Evening News."
 - 7.45—Close down.

EVENING SESSION.

- 7.55—Chimes and Announcements.
- 8—Broadcast from Lady Davidson's home, Turramurra, a concert by the 2FC Hospital Concert Party. Mr. Juna Garing introduces the Company.
- 8.3—Mr. Alex. Whitson, baritone.
- 8.15—Miss Gwladys Fimister, soprano.
- 8.18—Mr. Ernest Archer, tenor.
- 8.20—Mr. Arthur Prince, banjo solos.
- 8.25—Mr. Fred Harman, baritone.
- 8.30—Mr. Archie Seymour, entertainer.
- 8.35—Miss Evelyn Hynes, pianist, "Prelude in C Sharp Minor" (Bachmannoff).
- 8.40—Mr. Alex. Whitson, baritone.
- 8.45—Miss Gwladys Fimister, soprano.
- 8.50—Mr. Ross Garing and "Jerry" in ventriloquist patter.
- 8.55—Mr. Ernest Archer, tenor.
- 9.7—Mr. Arthur Prince, in banjo solos.
- 9.15—Miss Gwladys Fimister, soprano.
- 9.18—Mr. Fred Harman, baritone.
- 9.20—Mr. Archie Seymour, entertainer.
- 9.25—Mr. Ernest Archer, tenor.
- 9.30—Miss Gwladys Fimister, soprano.
- 9.34—Mr. Fred Harman, baritone.
- 9.40—From the Studio: Miss Juna MacKail sings at the piano—(a) "Jeslou", (b) "In the shade of a Bungalow" (Armstrong); (c) "Wagnerita" (Grand Opera Modernized).
- 9.50—Mr. Ford Adams in Comic Opera numbers—"Pearl of Sweet Caylin" from "The Clevelee"; (b) "Don-Balumba" from "The Cingalee".
- 9.55—Mr. Percival Spouse, mouth organ selections (a) "Harry Laufer's Favorite"; (b) "Two Eyes of Grey" (Phillips).
- 10—2FC Dance Band in dance numbers. Mr. Eric Pearce, conductor.
- 10.12—Miss Juna MacKail, entertainer, "Dustin the Keys" (piano novelty) (O'Neill); (b) "Venetian Night and You."
- 10.20—Mr. Ford Adams, "The Girls all call me Otis" from "The Girls of Gettensburg".
- 10.24—Mr. Percival Spouse, Mouth Organ Selections—(a) "Melley-Scotch Reel"; (b) "The Jolly Cooper Smith".
- 10.40—2FC Dance Band in dance items.
- 10.45—Mr. Laurence Halbert, baritone.
- 10.48—2FC Dance Band.
- 10.55—Mr. Laurence Halbert, baritone.
- 10.55—Celebrity Reader.
- 11—2FC Dance Band in dance items until midnight.
- 12—National Anthem. Close down.

2BL

EARLY MORNING SESSION.

- 7.15—G.P.O. Clock and Chimes.
- 7.16—Musical Programme from Studio.
- 7.19—Physical Training and Health Exercises
- 7.25—Health Hints.
- 7.30—Physical Training and Health Exercises.
- 7.45—G.P.O. Clock and Chimes.
- 7.46—Weather Report.
- 7.48—Sporting Information.
- 7.50—Broadcasters' Special News Service.
- 8—G.P.O. Clock and Chimes. Close down.

MORNING SESSION.

- Racing information, broadcast by courtesy of the "Sun."
- 11—G.P.O. Clock and Chimes.
- 11.1—Weather Report and Forecast.
- 11.2—Sydney Daily Telegraph News Service
- 11.20—Social Notes from the Sun.
- 11.50—Mrs. Jordan replies to correspondents
- 11.46—Talk by Mrs. Jordan.
- 12.5—Studio Music.
- 12.29—Sun Newspaper News Service.
- 12.30—G.P.O. Clock and Chimes.
- 12.31—London Metal Quotations.
- 12.36—Broadcasters' Special Rugby News Service.
- 12.39—Boats in call by wireless.
- 12.42—Weather report and forecast.
- 12.44—Shipping information—arrivals and departures.
- 12.48—Information re interstate and Overseas Mails.
- 12.51—News from the Sun Cable Edition.
- 1—G.P.O. Clock and Chimes.
- 1.1—Music from the Studio.
- 1.15—News from the Sun.
- 1.20—G.P.O. Clock and Chimes.
- 1.31—Music from the Studio.
- 1.45—Sporting talk.
- Racing resume will be broadcast every half-hour, Music from the studio during the afternoon.
- 5—G.P.O. Clock and Chimes; close down.

EARLY EVENING SESSION.

- 5.40—G.P.O. Clock and Chimes.
- 5.46—Uncle George and the Kiddies.
- 6.4—Devilish Dinner Orchestra, under the direction of Mr. Cec. Morrison.
- 7.15—Sporting results.
- 7.30—Country news from "Ban."

NIGHT SESSION.

- 5—G.P.O. Clock and Chimes; Broadcasters' Topical Chorus.
- 5.1—Ambassadors' Instrumental Salon Quinze.
- 5.30—Mr. David Smith, baritone.
- 5.37—Mr. Norman Wright, tenor.
- 5.45—Mr. Hubby Watson, comedian.
- 5.52—King's Mandolin Orchestra.
- 6—G.P.O. Clock and Chimes.
- Resumes of following day's programme: Weather Report and forecast.
- 6.5—Mr. Stan Fotheringham, variety pianist.
- 6.1—Brings will talk about the Aborigines.
- 6.31—Mr. Norman Wright.
- 6.58—Interval.
- 9.43—King's Mandolin Orchestra.
- 9.50—Mr. David Smith.
- 9.57—Mr. Stan Fotheringham.
- 10.7—Mr. Hubby Watson.
- 10.15—Al. Hammett and Ambassadors Dance Band until midnight.
- "Sun" News Reports during intervals between dances.
- 12—G.P.O. Clock and Chimes; National Anthem.

3AR

MORNING SESSION.

- 11.30—The British Official Wireless Press, received by 3AR's operator from Rugby, Wireless Station, England. Express train information. "Age" news bulletin.
- 12—Time Signal Chime from the G.P.O.
- 12.1—Weather Forecast; Studio Barometer Readings; Events of the Day.
- 12.5—Musical selections from the Studio.
- 12.50—Stock Exchange News. Foreign Ex-

- changes of the world, supplied by the courtesy of Reuters. Then, Cook & Son; Market Reports.
- 12.50—Musical Selections.
- 12.55—Mail Notices, Shipping Movements.
- 1—Close down.

AFTERNOON SESSION.

- Aspendale Park Racing Club.
 - 2.30—Result of Hurdle Race, 2 miles.
 - 2.35—Special Selections from the Studio.
 - 5—Result of Two-year-old Handicap.
 - 3.30—Result of Aspendale Flat.
 - 4—Result of Aspendale Park Handicap.
 - 4—Time Signal Chime G.P.O. 2nd Weather Forecast.
 - 4.30—Result of Aspendale Pure.
 - 4.45—Amusement guide for evening. Studio Barometer and Outdoor Thermometer readings.
 - 5—Result of Trial Water Handicap; Time Signal Chime; close down.
- EARLY EVENING SESSION.
- 6.45—Children's Corner, Uncle Man.
- EVENING SESSION.
- 8—Time Signal Chime from G.P.O. Studio Barometer and Outdoor Thermometer Readings. British Official Wireless Press. Final sporting and racing results. Local news.
 - 8.15—Dance night, The Rhythmic Dance Orchestra, relayed from the Maison-de-Luxe, Evesand.
 - 9.30—Week-end travellers' information, supplied by courtesy of Victorian Railways Department, and Metropolitan Trunways Board.
 - 9.45—The Maison-de-Luxe Rhythmic Dance Orchestra.
 - 10—Time Signal Chime. Studio Barometer and Outdoor Thermometer Readings.
 - 10.5—The Maison-de-Luxe Rhythmic Dance Orchestra.
 - 11—Time Signal Chime. Close down.

4QG

NO MIDDAY TRANSMISSION.

AFTERNOON SESSION.

- 3.30—A Matinee for little listeners, by "Miss Waresale".
 - 5.30—Close down.
- EARLY EVENING SESSION.
- 6.25—The Children's Session: Stories by "Uncle Ben" and "Uncle Jim."
 - 7.15—Sporting news.

NIGHT SESSION.

- 7.45—From the National Speedway: Motor Cycle Races, The Grand Parade.
- 8—From the Gaiety Theatre, Toowoong, a quarter of an hour's orchestral music.
- 8.15—From the National Speedway.
- 8.30—From the Gaiety Theatre, orchestral music.
- 8.45—From the Speedway—Motor Cycle races.
- 8.50—From Linton's Ballroom: Dance music.
- 10—From the Studio: "The Daily Mail" news. Close down.

7ZL

MORNING SESSION.

- 8—G.P.O. Clock Chimes; the "Mercury" News; Shipping; Commercial Intelligence; Weather information and sporting anticipations.
 - 11.45—Hobart Stock Exchange quotations.
 - 11.50—Boat Express information.
 - 12—G.P.O. Clock Chimes; close down.
- EVENING SESSION.
- 7—Children's Corner, "Big Brother" chats to his pals.
- NIGHT SESSION.
- 8—G.P.O. Clock Chimes, the "Mercury" special Tasmanian news service. Railway auction produce sales; weather information and sporting results.
 - 8.45—Hobart Stock Exchange quotations.
 - 8.15—Dance numbers from the Studio.
 - 9.45—British Official Wireless News, copied direct from Rugby by our own operator. Weather synopsis. Station Announcements. National Anthem.

Sunday, Jan. 9

2 GB

2 FC

MORNING SESSION.

- 10.55—Gibsons and Announcements.
11—"Big Ben." Broadcast from St. Stephen's Presbyterian Church, Philip Street, Sydney, the Morning Service conducted by the Rev. Hugh Paton.
12.15—From the Studio: News Service.
12.50—Close down.

AFTERNOON SESSION.

- 2.45—Announcements.
3—"Big Ben." Broadcast from the Congressional Church, Peteraham, an organ and vocal recital, arranged by Mr. Christian Hollemant.
4.40—Close down.

NIGHT SESSION.

- 6—"Big Ben" and announcements.
Broadcast from the Pitt Street Congregational Church, an organ recital, by Miss Edith Elliott, accompanied with vocal and instrumental items: "Toccata" (Dubois), "Giant Sans Paroles" (Chabikovsky), violin solo, "Souvenir" (Drdla), Miss Beryl Elliott, "Ave Maria" (Schubert), song, "The Theme of Grace" (Bonheur), Mr. Cecil Coleman, "On Wings" (Muller) (Mendelssohn), violin solo, "Rondino" (Miss Beryl Elliott), "Largo" (Handel), "March of the King" (Dubois), "Romance" (Haberstein).
7—The Evening Service from Pitt Street Congregational Church, conducted by the Rev. T. E. Bitts.

- 8.30—From the Studio: The Sydney Instrumental Trio, consisting of Mr. Lionel Lawson, violinist, Mr. Gladstone Bell, cellist, and Mr. Lindley Evans pianist. (a) "Finale" (from Trio by Tchaikovsky); (b) "Alma Movement" from Trio by Mr. Lindley Evans.
9.45—Duet, Miss Joyce Hadley soprano and Mr. Charles Stephens, tenor, "Letter Song" (from "Carson") (Bicket).
10.50—Mr. Gladstone Bell, solo solo.
9—Miss Joyce Hadley, soprano; (a) "Bird Song" ("Parade") (Mozart); (b) "Ah to Fu" ("Marie Flete") (Mozart).
12—Mr. Lindley Evans, piano solo—(a) "Baccarole" (Rubinstein); (b) "Study in A Major" (Poldini).
13.15—Mr. Charles Stephens, tenor (a) "Flower Song" (Carson) (Bicket); (b) "Gleno b car" ("La Gioconda") (Puccini).
13.25—Miss Joyce Hadley, soprano.
13.35—Mr. Lionel Lawson, violin solo.
13.45—Duet, Miss Joyce Hadley soprano, and Mr. Charles Stephens, tenor, "Aida" (Verdi).
14.12—Mr. Charles Stephens, tenor.
14.40—Sydney Instrumental Trio, consisting of Mr. Lionel Lawson violinist, Mr. Gladstone Bell cellist, and Mr. Lindley Evans pianist.
10—National Anthem. Close down.

2 BL

MORNING SESSION.

- 10.45—News Service.
11—Service broadcast from Palmer Street Presbyterian Church.

AFTERNOON SESSION.

- 3.30—Bible Class conducted by Mr. W. Cairn Bradley.
4—Concert from the Studio.
4.45—Children's service conducted by Uncle George.

EVENING SESSION.

- 7—Service broadcast from Chalmers Presbyterian Church.
8.30—From the Studio: Miss Dorrie Ward, soprano.
8.37—Broadcasters' Trio.
8.47—Mr. Macready Wilson, basso.
8.54—Resume of following day's programme.

MORNING SESSION.

- 10.30—Music from St. Alban's Church.
10.30—Evening service from St. Alban's Liberal Catholic Church.
12—Close down.

EVENING SESSION.

- 6.45—Music from Studio.
7—Lecture from Adyar Hall, by Miss Mary K. Neff, entitled "Man, His Own Rewarding Angel".
8—Music from Studio.
8.15—Vocal Quartette.
8.25—Songs by Clement Hosking.
8.35—Violin solo by Monica Hunter.
8.45—Song by Peggy Belle.
9.55—Announcements.
9.55—Songs by Clement Hosking.
10—Violin solo by Dan Scully.
10.25—Songs by Eva Croft.
10.32—Songs by Peggy Bell.
10.40—Vocal Quartette.
10.45—God save the King.

3 LO

- 10.55—Express Train Information.
11—Service from Baptist Church, Collins St., Melbourne.
12.15—British Official Wireless News from Rugby. Announcements.
12.20—Close down.

AFTERNOON SESSION.

- 3—Pleasant Sunday Afternoon Service, from Wesley Church, Leandale Street, Chelmsom, Res. J. H. Cain.
4.30—Close down.

EARLY EVENING SESSION.

- 6.30—Children's Hour: Hymns by the "Died Papers".
6.50—"Billy Bunny" will continue the story of the "Christmas Carol".
7—Musical items by the "Died Papers".
6.55—Answers to letters and birthday greetings.
6.40—Story of "David Livingstone" will be continued by "Billy Bunny".
6.50—Close down.

NIGHT SESSION.

- 7—Service from Central Mission, Wesley Church, conducted by Rev. C. Irving Benson.
6.30—St. Augustine's Orphanage Band.
8.40—Harry Weston, baritone (by permission of J. C. Williamson Ltd.).
8.47—Pietro Sarceli, violin.
8.57—Jesse Blackmore, contralto.
9.4—St. Augustine's Orphanage Band.
9.9—Harry Weston, baritone.
9.14—St. Augustine's Orphanage Band.
9.25—Jesse Blackmore, contralto.
9.33—St. Augustine's Orphanage Band.
9.46—"Argos" news service. Announcements.
9.47—Our Great Thought: "Inner sunshine warms not only the heart of the owner, but all who come in contact with it."—J. T. Fields.
10—God Save the King.

3 AR

MORNING SESSION.

- 10.30—Bells from St. James Old Cathedral.
11—Morning Service from Cairns Memorial Church, East Melbourne.

AFTERNOON SESSION.

- 3—Mr. Harry Ross, baritone.
7.15—Miss Fanny Lyndhurst, contralto.
8.14—Mr. Frank Owens, cornet.
8.21—Mr. N. Sutcliffe, baritone.
8.28—Miss Doris Cookson, soprano.
8.35—Mr. Harry Ross, baritone.
8.42—Miss Fanny Lyndhurst, contralto.
8.49—Mr. Frank Owens, cornet.
8.56—Mr. H. Sutcliffe, baritone.
8.5—Miss Doris Cookson, soprano.
4.10—Close down.

EARLY EVENING SESSION.

- 6—Children's entertainment, by Ladybird.

EVENING SESSION.

- 6.45—St. James Old Cathedral bells.
7—Evening Service from Cairns Memorial Church, East Melbourne.
8.30—Miss Freda Stevens, soprano.
8.37—Mr. Percy Handell, tenor.
8.44—Mr. David Shaw, baritone.
8.51—Mr. Frank Thomas, baritone.
8.58—Mr. George Wong, pianist.
9.6—Mr. W. E. Kouchingham, talk, "Cables and Wireless".
9.15—Miss Freda Stevens, soprano.
9.22—Mr. Percy Handell, tenor.
9.29—Mr. David Shaw, baritone.
9.36—Mr. Frank Thomas, baritone.
9.43—Mr. George Wong, pianist.
9.50—"Ade" News Bulletin, exclusive to 3AR.
9.55—Close down.

4 QG

MORNING SERVICE.

- 11—The complete Morning Service will be relayed from All Saints Church of England.
12.50—Close down.

AFTERNOON SESSION.

- 3.15—Concert by the Federal Band, Mr. W. H. Davis conductor, will be relayed from the Botanical Gardens.
4.30—Close down.

NIGHT SESSION.

- 7.30—The complete Evening Service will be relayed from All Saints Church of England.
8.30—Greater Brisbane Municipal Concert Band from Wickham Park. Special programme from 4QG studio. 4QG Harmony Year.
10.15—Close down.

7 ZL

EVENING SESSION.

- 7—Service from Miville St. Church.
At conclusion of Church Service either Band Concert from St. David's Park or Studio Concert.
9.45—"The Mercury" Special Interstate news service; Weather Synopsis; Station Announcements; National Anthem.

Monday, Jan. 10

2 FC

EARLY MORNING SESSION.

- 7—"Big Ben" and announcements.
7.6—Music from the Studio.
7.10—Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, commercial news, mail services.
7.25—Investment market, mining share market, metal quotations.
7.50—Wool sales, breadstuffs markets, Interstate markets, produce markets.
7.45—"Sydney Morning Herald" news services.
8—"Big Ben"; Cheerio Talk by Mr. J. K. Powell.

MORNING SESSION.

- 9.15—The obvious 2FC.
Music from the Studio.
9.20—Music from the Studio.
10—"Big Ben" and Announcements.
10.5—Late "Sydney Morning Herald" news services.
10.15—Music from the Studio.
10.30—2FC Racing Commissioner will give sporting information.
10.45—A morning reading.
11—"Big Ben"; Australian Press Association and Reuter's Cable Service.
11.10—Music from the studio.
11.30—Close down.

MIDDAY SESSION.

- 12—The Chimes of "Big Ben" and Announcements.
 - 12.05—Stock Exchange, First Call.
 - 12.10—Music from the Studio.
 - 12.15—From Farmer's Oak Hall: The Oak Hall Trio.
 - 12.20—Rushy Wireless news.
 - 12.25—"Big Ben"—Weather Intelligence.
 - 1.27—"Evening News" Ministry News Service. Producers' Distributing Society's report.
 - 1.30—From Farmer's Oak Hall: The Oak Hall Trio.
 - 1.35—Stock Exchange, Second Call.
 - 1.50—Music from the Studio.
 - 2—"Big Ben"—Close down.
- Note.—The Cricket Match, between New South Wales and South Australia will be described in full from the Sydney Cricket Ground.

AFTERNOON SESSION.

- 2—Cricket Match at Sydney Cricket Ground. Full description of the play will continue right through the afternoon.
 - 4—Items from the Studio.
 - 4.15—Further descriptions of the Cricket Match.
 - 6—Stamps drawn scenes.
- Note.—During the afternoon, the following artists will sing in the Oak Hall: Miss Katherine Beverley, soprano; (a) "Don't Hurry" (Sanderson); (b) "Adley" (Covey); Miss Peggy Dunbar, contralto; (a) "Friend o' Mine" (Sanderson); (b) "Sometimes in Summer" (Bennet).

EARLY EVENING SESSION.

- 6.5—The "Hello Man" talks to the children.
- 6.50—A serial story for the baby children.
- 6.45—Dinner Music.
- 7.10—"Evening News" late news service: Weather information.
- 7.20—Dalgety's Market Reports (wool, wheat, stock), fruit and Vegetable Markets.
- 7.40—A Talk by Mr. F. J. Grimsmer, on the wonders of nature, taking for his subject, "Dissolved Germs."

EVENING SESSION.

- 7.55—Announcements.
- 8—"Big Ben"—Broadcast from the Haymarket Theatre, items by the orchestra under the baton of Mr. Stanley Porter.
- 8.25—Mr. Walter Whyte, tenor; (a) "My Sweetheart when a Boy" (Morgan); (b) "Sally in Our Alley" (Ollie Knephil).
- 8.52—Miss Belle Pollard, soprano; (a) "If I Had" (Ardill); (b) "The Flower Song" (Gosmond).
- 8.40—Miss Goodie Beery interviews Miss Stella Wilson, of the Gilbert and Sullivan Opera Company.
- 8.55—Mr. Tom Ferguson, novelty pianist.
- 8.4—Haymarket Theatre—Vocal Act.
- 9.20—Mr. Alex. Whitson, baritone.
- 9.28—Mr. Walter Whyte, tenor, and Miss Belle Pollard, soprano; "Lost Chord" (Sullivan).
- 9.45—Mr. Joe Cahill, comedian; (a) "Mister Dudley speaks of the City as a Health Resort" (Dunn); (b) "A Real Thrill" (Thompson).
- 9.45—Mr. Tom Ferguson, novelty pianist.
- 9.55—Mr. Alex. Whitson, baritone.
- 9.56—Mr. Walter Whyte, tenor; "If I ought mine to you" (Squire).
- 10—Miss Belle Pollard, soprano. "Waltz King" (Alfred Hill).
- 10.4—Mr. Alex. Whitson, baritone.
- 10.8—Miss Belle Pollard, soprano, and Mr. Walter Whyte, tenor, duet. "Gipsy Love Song."
- 10.15—From the Haymarket Theatre, items by the Operatic Orchestra, under the baton of Mr. Stanley Porter.
- 10.35—Mr. Joe Cahill, comedian (a) "Clubbak" (W. J. Rieger); (b) "The Telephone Girl."
- 10.45—EFC Dance Band in dance items. Mr. Eric Pearce, conductor.
- 10.52—Celebrity records.
- 11—"Big Ben"—EFC Dance Band until midnight. National Anthem. Close down.

- 7.15—Musical Programme from the Studio.
- 7.19—Physical Training and Health Exercises.
- 7.25—Health Hints.
- 7.30—Physical Training & Health Exercises.
- 8.45—G.P.O. Clock and Chimes.
- 7.45—Weather Forecast.
- 7.46—Sporting Information.
- 7.48—Broadcasters' Special News Service.
- 8—G.P.O. Clock and Chimes; Close down.

MORNING SESSION.

- Having information broadcast by courtesy of the "Sun".
- 10—G.P.O. Clock and Chimes.
- 10.1—Weather Report.
- 10.2—Music from the Studio.
- 10.20—News from the Daily Telegraph.
- 10.25—Music from the Studio.
- 10.45—Serial Story.
- 11—G.P.O. Clock and Chimes.
- 11.1—News from the Telegraph.
- 11.15—Bullish Market Report.
- 11.21—Fruit Market Report.
- 11.25—Fish Market Report.
- 11.29—Vegetable Market Report.
- 11.35—London Dairy Produce and Egg report.
- 11.36—Ships in sail by wireless.
- 11.32—Information to Interstate and Overseas mails.
- 11.33—Shipping information—arrivals and departures.
- 11.35—Sporting talk.
- 11.40—Women's Session, conducted by Mrs. Jordan; social notes.
- 11.50—Mrs. Jordan replies to correspondents.
- 12—G.P.O. Clock and Chimes.
- 12.1—Talk by Mrs. Jordan.
- 12.25—News from the Sun.
- 12.30—G.P.O. Clock and Chimes.
- 12.32—Sydney Stock Exchange calls.
- 12.33—Sun; News service.
- 12.45—Hilliers' Instrumental Quartet.
- 1.00—G.P.O. Clock and Chimes.
- 1.05—Weather Report.
- 1.10—Stock Exchange Calls.
- 1.16—News from the Sun.
- 1.45—Music from the Studio.
- 2—G.P.O. Clock and Chimes; close down.

AFTERNOON SESSION.

- Radio information broadcast by courtesy of the Sun.
- 3—G.P.O. Clock and Chimes.
- 3.15—Weather Report and Forecast.
- 3.25—Social Notes from the Sun.
- 3.30—News from the Sun.
- 3.35—Music from the Studio.
- 3.40—G.P.O. Clock and Chimes.
- 3.51—News from the Sun.
- 3.46—Music from the Studio.
- 4—G.P.O. Clock and Chimes.
- 4.15—Serial Story.
- 4.20—Music from the Studio.
- 4.45—Producers' Distributing Society's Fruit and Vegetable Report.
- 4.50—Shipping Information when available.
- 4.52—Day's racing resume on race days.
- 4.57—News from the Sun.
- 4.58—Outline of night's programme.
- 5—G.P.O. Clock and Chimes; close down.

EARLY EVENING SESSION.

- 5.45—G.P.O. Clock and Chimes.
- 5.46—Uncle George and the kiddies.
- 6.10—Music from the Studio.
- Special Country Session.
- 7—G.P.O. Clock and Chimes.
- 7.1—Australian Mercantile Land & Finance Co's report.
- 7.2—Weather Report and Forecast.
- 7.9—Stock Exchange Reports.
- 7.15—Producers' Distributing Society's Fruit and Vegetable report.
- 7.19—Fruit and Vegetable Report (Sun).
- 7.22—Grain and Fodder Report (Sun).
- 7.26—Dairy Produce Report (Sun).
- 7.30—Country news from the Sun.

NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Broadcasters' Typical Chorus.
- 8.3—Newtown Band broadcast from Industrial Hall, Newtown.

- 8.58—Mr. Bert Warrne, comedian.
- 8.51—Mr. Herbert Hinchcliffe, baritone.
- 8.38—Miss Joy Vane, comedienne.
- 9.46—Mr. John Moric, tenor.
- 8.53—Mr. Dudley Osborne, descriptive vocalist.
- 9—G.P.O. Clock and Chimes.
- Result of following day's programme: Weather Report and Forecast.
- 9.5—Marshall Day, steel guitar.
- 9.15—Mr. Herbert Hinchcliffe, baritone.
- 9.22—Newtown Band.
- 9.25—Warrne and Osborne.
- 9.34—The Hinchcliffe Duo.
- 9.4—Miss Joy Vane.
- 10.11—Mr. John Moric.
- 10.74—Al Hammett and the Ambassadors' Dance Band, broadcast from the ballroom of the Ambassadors. During the intervals between dances, news reports, by courtesy of "The Sun," will be broadcast.
- 12—G.P.O. Clock and Chimes; National Anthem.

2 GB

EVENING SESSION.

- 6.45—Talks to children by Uncle Joe.
- 7.11—Talks to Women.
- 7.20—Music from Studio.
- 7.48—Announcements.
- 7.52—Instrumental Trio.
- 8.2—Address by Dr. J. J. Van der Leeuw, (M.D.).
- 8.20—Songs by Miss J. Lee.
- 8.30—Quessing Competition.
- 8.35—Instrumental Trio.
- 8—Announcements.
- 8.5—Victory songs by Monica Horder.
- 9.15—Talk on Radio.
- 9.30—Songs by Miss J. Lee.
- 9.40—Solo songs by Mariel Lang.
- 9.45—Instrumental Trio.
- 10—"Great Thoughts from Great Minds."

3 LO

MIDDAY SESSION.

- 12 noon—Time Signal; British Official Wireless News from Rugby, Reuters and the Australian Press Association Cables "Argus" and "Herald" News Services.
- 12.30—Studio Orchestra.
- 12.40—Bessie Gannon, violin.
- 12.47—Meteorological information, Stock Exchange information, Shipping Intelligence. Weather forecast for Victoria, Tasmania, South Australia, and New South Wales. Ocean Forecast. River reports.
- 3—Wendling and Malloy, Melody Duo.
- 1.8—Studio Orchestra.
- 1.18—Mascotte Balaton, orchestra.
- 1.25—C. Richard Chapp, solo.
- 1.32—Wendling and Malloy, Melody Duo.
- 1.41—Studio Orchestra.
- 1.47—Mascotte Balaton, orchestra.
- 1.54—Studio Orchestra.
- 3—Close down. Results of Pony Races will be given after 4.30 race.

AFTERNOON SESSION.

- 3—Studio Orchestra.
- 3.15—Mrs. Dorinsky Silk, "Rhapsodia."
- 3.25—Dr. Bartolici, baritone.
- 3.32—Ethel Kay Trio.
- 3.50—The Royal Scots.
- 3.57—Tanya Tormon, cello.
- 3.4—Geo. Welch, in a merry mood.
- 4.14—Studio Orchestra.
- 4.21—The Royal Scots.
- 4.30—Miss Flora Fell, Supervisor of Domestic Arts, Education Department, Melbourne.
- 4.45—"Herald" news service. Stock Exchange information. Racing results.
- 5—Close down.

EVENING SESSION.

- 6.45—Children's Hour: Answers to letters and Birthday Greetings.
- 6.55—Frances Lee, soprano, will sing to the children.
- 6.2—"Little Miss Kookaburra" will tell her story to Kookaburra sisters and brothers the story of "Little Miss Muffet."
- 6.12—Harold Collier, Mouthorganist, will play popular airs.

2 BL

EARLY MORNING SESSION.

- 7.15—G.P.O. Clock and Chimes.

Tuesday, Jan. 11
2FC

EARLY MORNING SESSION.

- 7—"Big Ben" and announcements.
- 7.5—Music from the Studio.
- 7.10—Official weather forecast, rainfall temperatures, astronomical memoranda, shipping intelligence, commercial news, mail service.
- 7.25—Investment market, mining share market, metal quotations.
- 7.35—Wool sales, breadstuffs markets, interstate markets, produce markets.
- 7.45—"Sydney Morning Herald" news service.
- 8—"Big Ben" Cheerio Talk, by Mr. J. K. Powell.
- 8.15—"Big Ben." Close down.

MORNING SESSION.

- 9.15—"The Chimes of 2FC.
- 9.20—Music from the Studio.
- 9.45—Racing talk, by 2FC Racing Commissioner.
- 10—"Big Ben" and announcements.
- 10.5—Late "Sydney Morning Herald" News Service.
- 10.15—Music from the Studio.
- 10.45—A Morning Reading.
- 11—"Big Ben"; Australian Press Association and Router's Cables.
- 11.10—Music from the Studio.
- 11.15—Talk on Home Cooking and Recipes, by Miss Ruth Furs.
- 11.30—Music from the Studio.
- 11.40—Close down.

MIDDAY SESSION.

- 12—"The Chimes of Big Ben" and Announcements.
- 12.5—Stock Exchange, First Call.
- 12.10—Music from the Studio.
- 12.45—Music from the Oak Hall; The Oak Hall Trio.
- 12.50—Bugsy Wireless News.
- 1—"Big Ben"; Weather Intelligence.
- 1.5—"Evening News" midday news service. Producers' Distributing Society's reports.
- 1.20—Oak Hall Trio.
- 1.25—Stock Exchange—Second Call.
- 1.30—Music from the Studio.
- 2—"Big Ben." Close down.
- 2.10—"The Cricket Match between New South Wales and South Australia will be described in full from the Sydney Cricket Ground.

AFTERNOON SESSION AND

EARLY EVENING.

- 2—Cricket match between N.S.W. and South Australia, full description of the play will continue right throughout the afternoon.
- 4—Items from the Studio.
- 4.15—Further descriptions of the Cricket Match.
- 6—Stamps drawn series.

Note.—During the afternoon, the following artists will sing: Miss Olga Briggs, soprano; Miss Florence Grant, soprano, (a) "Waltz Song from 'Tom Jones,'" (German); (b) "The Challenge of Spring" (Liddle); Miss Thekla Landwehr, mezzo, (a) "The Hills of Selo" (Demundt); (b) "Down in the Forest" (Ronald).

4.3—The "Hollo Man" talks to the children.

5.10—A serial story for the older ones.

6.45—Dinner Music.

7.10—"Evening News" late news service and weather information.

7.20—Dalgety's Market Report (wool, wheat, stock); fruit and vegetable markets.

7.40—Mr. Essard Hall, M.A., will complete his series of talks, dealing with the "Food Value of Honor."

NIGHT SESSION.

- 7.55—Announcements.
- 8—"Big Ben." From the Darlington Town Hall, items by the Metropolitan Band, under the baton of Mr. J. Schaeffer.
- 8.15—From the Studio: Miss Kitty Gordon, contralto, (a) "The Bitterness of Love" (Dunn); (b) "Betty's Garden" (Schubert).

- 6.18—Frances Lea has two more little songs to sing.
- 6.30—Story for the bigger children, by "Miss Kookaberra," will be about "King Arthur."
- 6.55—"Arauc" and "Herald" news service. Weather and Aerial Mail information, by the Australian Aerial Services Ltd.
- 6.40—Stock Exchange information. Overseas shipping.
- 6.45—Fish market reports, by J. K. Borrett Ltd.
- 6.51—River reports.
- 6.54—Market reports by the Victorian Producers Co-operative Co. Ltd. Haymarket Sheep Sales; Poultry, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.
- 7.5—Market prices of oranges and lemons, by the Victorian Central Citrus Association Pty. Ltd.

NIGHT SESSION.

- 7.13—Under the auspices of the Boy Scouts' Association, Victorian Branch, Dr. G. G. McAdam, Deputy Chief Commissioner, "Our Programme for 1927."
- 7.30—Under the auspices of the Rubber Growers' Association (Incorporated London), Mr. Munro will speak on "A Survey of the Rubber Industry."
- 7.35—Under the auspices of the Department of Agriculture, Dr. S. S. Cameron, Director of Agriculture, "The Outlook for 1927."
- 8—Studio Orchestra.
- 8.10—Mascotte Rabston, soprato.
- 8.17—William King will give xylophone selections.
- 8.23—Dr. Bartolini, baritone.
- 8.30—George Welch gets funny.
- 8.40—Portion of "The Art of 'The Naughty Wife,'" featuring Miss Renee Kelly and Mr. George Bayard, transmitted from the King's Theatre, by permission of J. C. Williamson Ltd.
- 8.55—Victoria Wilson, soprano.
- 9.5—Estelle Mark Trio in vocal and instrumental items.
- 9.17—William King will give two more selections on the xylophone.
- 9.25—Dr. Bartolini, baritone.
- 9.32—String Quartet and Piano.
- 9.40—Wedding and Melloy, Melody Duo.
- 9.50—British Official Wireless news from Rugby, Announcements.
- 10—Victoria Wilson, soprano.
- 10.7—Studio Orchestra.
- 10.17—Mascotte Rabston, soprato.
- 10.24—Wedding and Melloy, Melody Duo.
- 10.31—Studio Orchestra.
- 10.41—"Arauc" news service. Weather forecast. Announcements.
- 10.51—S.O. Melody Masters.
- 11—Our Great Thought: "A faithful friend is better than gold—a medicine for misery, an only possession."—Burrin.
- 11.1—S.O. Melody Masters.
- 11.40—God Save the King.

3AR

MORNING SESSION.

- 11.30—British Official Wireless Press, received from Rugby/Super Wireless Station, England; Express Train information; "Age" News Bulletin, exclusive to 3AR.
- 12—Time Signal Chime. Studio Harometer Readings, lat Weather Forecast. Sporting Fixtures; Events of the day.
- 12.5—Musical Selections from the Studio.
- 12.50—Market Reports.
- 12.55—Musical selections.
- 12.40—Shipping Movements. Mail Notices.
- 1—Close down.

AFTERNOON SESSION:

- 2.30—Mr. Bert Pettinaer, violin.
- 2.47—The Melbourne Piano Trio.
- 2.53—Miss Rita Gibson, soprano.
- 3—Mr. Ronald Browerly, cellist.
- 3.7—Melbourne Piano Trio.
- 3.23—Miss Rita Gibson, soprano.
- 3.30—Melbourne Piano Trio.
- 4—Time Signal Chime; 2nd Weather Report; Selections by the Melbourne Piano Trio.
- 4.55—Evening Amusement Guide.

- 5—Time Signal Chime; 2nd Weather Forecast; Close down.

EARLY EVENING SESSION.

- 4.46—Children's corner, by Uncle Rad.
- 4.55—British Official Wireless Press; Studio Harometer Readings.
- 5—Miss Sylvia Macpherson, mezzo.
- 5.7—Mr. Thomas Millar, Scotch comedian.
- 5.11—Leggett's Ballroom Orchestra.
- 5.20—Mr. A. J. Sullivan, travoloso, "Australia and New Zealand."
- 5.45—Leggett's Orchestra.
- 5.7—Mr. Milton Chick, baritone.
- 5.13—Miss Katie Hocking, soprano.
- 5.10—Leggett's Orchestra.
- 5.25—Miss Sylvia Macpherson, mezzo.
- 5.15—Mr. Thomas Millar, Scotch comedian.
- 5.30—Miss Katie Hocking, soprano.
- 5.40—Mr. Milton Chick, baritone.
- 5.13—Leggett's Orchestra.
- 10—Time Signal Chime. Studio Harometer readings "Age" news bulletin.
- 10.7—Leggett's Ballroom Orchestra.
- 11—Close down.

4QG

MIDDAY SESSION.

- 12.55—Time Signal.
- 12.58—Time Signal.
- 1—Market Reports, supplied by the Council of Agriculture. Weather information, supplied by Commonwealth Weather Bureau. News, supplied by "The Daily Mail" News Service, supplied by "The Daily Standard."
- 1.20—From Hotel Carlton: Lunch Music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
- 2—Close down.

AFTERNOON SESSION.

- 2.30—From Hotel Carlton: Afternoon Tea Music, played by Hotel Carlton Symphony Orchestra.
- 4.15—From the Studio: News Service, supplied by "The Telegraph."
- 4.30—Close down.

EARLY EVENING SESSION.

- 6—News Service supplied by the "Daily Standard."
- 6.30—Children's Session: Stories by "The Sandman."
- 7—From the Council of Agriculture Studio: Market Reports; Lecture, "Beacon Pig Carcases Contact" Mr. E. J. Shelton.
- 7.10—From the Studio of 4QG, Stock Reports; Announcements; Weather News.

NIGHT SESSION.

- 7.45—Lecturer, Seaton, "Town Planning as a Business Asset," Mr. R. Martin Wilson.
- 8—Studio Concert.
- 9—Metropolitan Weather Forecast; Musical Programme.
- 10—"The Daily Mail" news. Weather news. Close down.

7ZL

MORNING SESSION.

- 11—G.P.O. Clock Chimes. The "Mercury" news, Stock Market, Shipping, Commercial Intelligence. Weather information. Ships without wireless range.
- 12—G.P.O. Clock Chimes. Close down.

AFTERNOON SESSION.

- 3—G.P.O. Clock and Chimes; Musical items from the Studio.
- 3.35—Hobart Stock Exchange quotations.
- 3.55—Weather information.
- 4—G.P.O. Clock Chimes; close down.

EVENING SESSION.

- 7—Children's Corner. "Big Brother" chats to his Peas.

NIGHT SESSION.

- 8—G.P.O. Clock Chimes. The "Mercury" special Tasmanian news service. Railway station produce sales. Weather information.
- 8.5—Hobart Stock Exchange quotations.
- 8.50—Concert from the Studio.
- 9.15—Tasmanian District Weather Reports.
- 9.50—"The Mercury" special interstate news service. Weather synopsis. Station announcements. National Anthem.

- 8.26—From the Darlington Town Hall; Metropolitan Band.
- 8.42—From the Studio; The Four Waifs, Male Quartette.
- 8.50—From the Darlington Town Hall; The Metropolitan Band.
- 9.2—From the Studio; Miss Kitty Gordon, "Little House of Rising" (Lohr).
- 9.16—From the Darlington Town Hall; The Metropolitan Band.
- 9.30—From the Studio; The Four Waifs.
- 9.46—Miss Kitty Gordon, contralto, "Look Down, Dear Eyes" (Fisher).
- 9.48—Mr. Lionel Lawson, violinist (a) "Cannonetta" (Tschakowsky); (b) "Souvenir" (Drda).
- 9.58—Mr. Jack Lumsdaine, entertainer.
- 10.12—The Four Waifs, Male Quartette.
- 10.20—Mr. Lionel Lawson, violinist, "Second Movement, Sonata in C Minor" (Grieg).
- 10.30—Mr. Jack Lumsdaine, entertainer.
- 10.40—From the Wentworth Hotel, Sydney, items by the New Westnorth Symphonic Dance Orchestra, under the direction of Mr. Sydney Simpson.
- 10.52—Celebrity Records.
- 11—"Big Ben" Westnorth New Symphonic Dance Orchestra until midnight.
- 12—National Anthem; close down.

2 BL

EARLY MORNING SESSION.

- 7.10—G.P.O. Clock and Chimes.
- 7.15—Musical Programmes from the Studio.
- 7.19—Physical Training and Health Exercises.
- 7.23—Health Hints.
- 7.30—Physical Training and Health Exercises.
- 7.45—Weather Forecast.
- 7.48—Sporting Information.
- 7.50—Broadcasters' Special News Service.
- 8—G.P.O. Clock and Chimes; Close down.

MORNING SESSION.

- Racing information broadcast by courtesy of the Sun.
- 10—G.P.O. Clock and Chimes.
- 10.1—Weather Report.
- 10.2—Music from the Studio.
- 10.20—Daily Telegraph News.
- 10.35—Music from the Studio.
- 10.45—Serial Story.
- 11—G.P.O. Clock and Chimes.
- 11.1—News from the Daily Telegraph.
- 11.15—Rabbit Market Report.
- 11.18—Fish Market Report.
- 11.20—Vegetable Market Report.
- 11.22—Fruit Market Report.
- 11.24—London Dairy Produce and Egg Market Report.
- 11.26—London Meat Quotations.
- 11.28—Ships in sail by Wireless.
- 11.30—Information re Interstate and Overseas Mails.
- 11.43—Shipping information—arrivals and departures.
- 11.45—Sporting talk.
- 11.40—Women's Session conducted by Mrs. Jordan; social notes.
- 11.50—Mrs. Jordan replies to correspondents.
- 12—G.P.O. Clock and Chimes.
- 12.1—Talk by Mrs. Jordan.
- 12.25—News from the Sun.
- 12.30—G.P.O. Clock and Chimes.
- 12.31—Spryng Stock Exchange Calls.
- 12.33—Sun Newspapers News Service.
- 12.40—Hilliers' Instrumental Quartet.
- 1.30—G.P.O. Clock and Chimes.
- 1.31—Weather Report.
- 1.33—Sydney Stock Exchange calls.
- 1.35—News from the Sun.
- 1.45—Music from the Studio.
- 2—G.P.O. Clock and Chimes; close down.

AFTERNOON SESSION.

- Racing information broadcast by courtesy of the Sun.
- 3—G.P.O. Clock and Chimes.
- 3.5—Weather Report and Forecast by courtesy of Govt. Meteorologist.

- 3.5—Social Notes from the Sun.
- 8.15—Sun Newspaper's News Service.
- 8.30—Civil Service Stores Trio.
- 8.35—G.P.O. Clock and Chimes.
- 3.31—News from the Sun.
- 3.45—Music from the Studio.
- 4—G.P.O. Clock and Chimes.
- 4.1—Civil Service Stores Trio.
- 4.15—Serial Story.
- 4.30—G.P.O. Clock and Chimes.
- 4.31—Studio Music.
- 4.45—Producers' Distributing Society's Vegetable and Fruit Markets.
- 4.50—Shipping Information when available.
- 4.52—Day's Racing Resume on Race Days.
- 4.55—News from the Sun.
- 4.58—Resume of Night's Programme.
- 5—G.P.O. Clock and Chimes.

EARLY EVENING SESSION.

- 5.45—G.P.O. Clock and Chimes.
- 5.46—Uncle George and the Kiddies.
- 6.40—Music from the Studio.
- Special Country Semion
- 7—G.P.O. Clock and Chimes.
- 7.1—Australian Mercantile Land and Finance Co. Report.
- 7.5—Weather Report and Forecast, by courtesy of Mr. C. J. Marce, Government Meteorologist.
- 7.9—Stock Exchange Reports.
- 7.15—Producers' Distributing Society's Fruit and Vegetable Report.
- 7.19—Fruit and Vegetable Report (Sun).
- 7.22—Grain and Fodder Report (Sun).
- 7.30—A talk on "The Motor Car," by Mr. Martin.
- 7.26—Dairy Produce Report (Sun).
- 7.45—Country news from the Sun.

NIGHT SESSION.

- 8—G.P.O. Clock and Chimes. Broadcasters' Topical Topics.
- 8.15—Broadcasters' Miniature Orchestra.
- 8.18—Mr. Leslie Herford, baritone.
- 8.20—Miss Ida Lengett, soprano.
- 8.27—The Lyric Quartet.
- 8.31—Miss Mary Seal, mezzo contralto.
- 8.44—Mr. Reg Harrison, comedian.
- 8.51—Mr. William Everard, tenor.
- 8.58—Resume of following day's programme;
- 9—G.P.O. Clock and Chimes.
- 9.1—Weather Report and Forecast.
- 9.3—Broadcasters' Miniature Orchestra.
- 9.13—Duet, Miss Ida Lengett and Mr. William Everard.
- 9.15—Mr. Leslie Herford.
- 9.25—Interval.
- 9.30—The Lyric Male Quartet.
- 9.40—Miss Ida Lengett.
- 9.47—Mr. Reg Harrison.
- 9.54—Broadcasters' Miniature Orchestra.
- 10.4—Miss Mary Seal.
- 10.11—Mr. William Everard.
- 10.15—Al Hemmott and the Ambassadors' Dance Band, broadcast from the ballroom of the Ambassadors. During the interval between dances, News Reports by courtesy of the Sun will be broadcast.
- 12—G.P.O. Clock and Chimes; National Anthem; Close down.

3 LO

MIDDAY SESSION.

- 12 noon—Time Signal; British Official Wireless News from Rugby; Reuters and the Australian Press Association Cables; "Argus" and "Herald" News Services.
- 12.30—Studio Orchestra.
- 12.40—The Royal Scots.
- 12.50—Meteorological Information: Weather Forecasts for Victoria, Tasmania, South Australia, and New South Wales; Ocean Forecast; River Reports; 3LO Girl.
- 1. News Signal.
- 1.1—Studio Orchestra.
- 1.10—Annette Portman, contralto.
- 1.17—C. Richard Clegg, flute.
- 1.22—The Royal Scots.
- 1.24—Dorothy Deburgh, viola.
- 1.40—Annette Portman, contralto.
- 1.47—Studio Orchestra.
- 2—Description of Trial Hurdle, Warrnambool Races.

- 2.5—Close down.
- 3.5—Description of Trial Handicap, Warrnambool Races.
- 2.40—Close down.

AFTERNOON SESSION.

- 3—3LO Melody Masters.
- 3.15—Description of Roival Sheepchase, Warrnambool Races, by "Musket," of the "Sporting Globe."
- 3.20—Pietro Sarcoti, violin.
- 3.30—Dr. Bartolini, baritone.
- 3.37—3LO Melody Masters.
- 3.47—Wendling and Molloy, Melody Duo.
- 3.55—Description of Summer Handicap, Warrnambool Races, by "Musket."
- 4—George Welch and his humour.
- 4.10—Pietro Sarcoti, violin.
- 4.20—3LO Melody Masters.
- 4.30—Description of Lady Day Hurdle, Warrnambool Races.
- 4.35—"Au Fait" of Messrs. Buckley and Nunn Ltd., will give a Fashion Talk.
- 4.45—"Herald" News Service—Stock Exchange Information; 3LO Girl.
- 5.10—Description of Turk Handicap, Warrnambool Races, by "Musket," of "Sporting Globe."
- 5.15—Close down.

EVENING SESSION.

- 5.40—Children's Hour: Answers to letters and Birthday Greetings, by "Mary Gumleaf."
- 5.55—Pat McLean has a funny little piece to recite.
- 6.2—Mary Gumleaf, soprano "Spring Morning" "If I had a ship." Story for the children ones, "Tinker, Tailor and Tim."
- 6.22—Thelma Reedy, harpist.
- 6.24—"Mary Gumleaf's" story for the boys and girls, "An Adventure in Assisi." Part I.
- 6.3—"Argus" and "Herald" news services, Weather information, Aerial mail information by the Australian Aerial Services Ltd.
- 6.47—Stock Exchange information, Overseas Shipping.
- 6.52—Fish market reports, by J. R. Borrell, Ltd.
- 6.58—River reports.
- 6.58—Market reports by the Victorian Producers' Co-operative Co. Ltd.; Haymarket cheap Sales: Poultry, grain, chaff, hay, straw, fats, dairy produce, potatoes and onions.
- 7.10—Market price of Oranges and Lemons by the Victorian Central Citrus Association Pty. Ltd.

NIGHT SESSION.

- 7.15—Mr. R. H. Wilmut, "Everyday Chemistry."
- 7.30—Under the auspices of the University Extension Board.
- 7.45—Dr. Loftis Hills, "Popular Science."
- 8.—South Melbourne City Band.
- 8.10—The Royal Scots.
- 8.20—Thelma Reedy, baritone.
- 8.37—Dr. Bartolini, baritone.
- 8.54—Pietro Sarcoti, violin.
- 8.44—Two Short Sketches.
- 9.—South Melbourne City Band.
- 9.14—Wendling and Molloy.
- 9.23—George Welch in funnimentis.
- 9.30—Dr. Bartolini, baritone.
- 9.38—Under the auspices of the Gladstone Old Boys' Association, Mr. J. Hall will speak.
- 9.48—The Royal Scots.
- 9.58—British Official Wireless news from Rugby, Announcements.
- 10.8—South Melbourne City Band.
- 10.18—Sporting notes by "Olympus."
- 10.28—Wendling and Molloy, Melody Duo.
- 10.5—Thelma Reedy will give two more harp selections.
- 10.43—South Melbourne City Band.
- 10.50—"Argus" news service. Weather Information, Announcements.
- 11—Our Great Thought: "Character is higher than intellect. A great soul will be strong to live as well as strong to think,"—Emerson.
- 11.1—3LO Melody Masters.
- 11.40—God Save the King.

3 A R

MORNING SESSION.

- 11.30—British Official Wireless Press, received from Rugby. Singer Wireless Station, England; Express Train Wireless Information; "Age" News Bulletin.
 12—Time Signal Chime from G.P.O. Studio.
 Barometer Readings, 1st Weather Forecast, Events of the Day.
 12.5—Musical Selections.
 12.50—Stock Exchange News; Market reports.
 12.40—Musical Selections.
 12.55—Shipping Movements, Mail Notices.
 1—Close down.

AFTERNOON SESSION.

- 2.30—Mr. Edward Keane, baritone.
 2.35—Miss Peggy Lester, clarinetist.
 2.45—Mr. Allan Russell, tenor.
 2.53—Miss Molly Locke, soloist at the piano.
 3—Mr. Edward Keane, tenor.
 3.7—Miss Peggy Lester, clarinetist.
 3.15—Mr. Allan Russell, tenor.
 3.25—Miss Molly Locke.
 3.30—Selections by the Studio Trio.
 4.05—Evening Amusement Guide.
 4—Time Signal Chime, Studio Barometer Readings, Close down.

EARLY EVENING SESSION.

- 6.45—Children's Corner, by Uncle Mac.

EVENING SESSION.

- 7.40—Mr. Higgins, talk, "Furnishing the Modern Home."
 8—Madame Belle Strato, contralto.
 8.5—Miss Marion de Saxe.
 8.15—Mr. James Melton, tenor.
 8.25—Mr. Trevor White, talk.
 8.37—Miss Grace Surson, mezzo soprano.
 8.45—Mr. Frank Pearson.
 8.52—Mr. Noel Bunker, baritone.
 9—Madame Belle Strato, contralto.
 9.5—Miss Pearl Holt, pianist.
 9.15—Miss Grace Surson, mezzo soprano.
 9.23—Mr. Noel Bunker, baritone.
 9.30—Miss Marion de Saxe.
 9.38—Mr. James Melton, tenor.
 9.45—Mr. Frank Pearson.
 9.53—Miss Pearl Holt, pianist.
 10—Time Signal Chime from G.P.O. Studio.
 Barometer Readings; "Age" News Bulletin.
 10.10—Largest's Radium Orchestra.
 11—Time Signal, Close down.

4 Q G

MIDDAY SESSION.

- 12.55—Tune in.
 12.55—Time Signal.
 1—Market Reports, Weather information, "The Daily Mail" and "The Daily Standard" news.
 1.25—From Hotel Carlton: Lunch Music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
 2—Close down.

AFTERNOON SESSION.

- 3.50—A programme of Music from the Studio.
 4.15—"The Telegraph" news.
 4.30—Close down.

EARLY EVENING SESSION.

- 5—News Service supplied by the "Daily Standard"; Weather information, supplied by the Commonwealth Weather Bureau; Announcements.
 6.40—The Children's Session, Stories by "Uncle Mac" and "Uncle Jim."
 7—From the Council of Agriculture Studio: Market Reports, Lecture, "The Shamen Coast," Mr. N. Mills.
 7.10—From the Studio: Stock Reports; Announcements, Weather news.

NIGHT SESSION.

- 7.45—Lecture Session, "Photography," Mr. F. L. South.
 8—Studio Concert.
 10—From the Studio: "The Daily Mail" News; Weather News, Close down.

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7 ZL

MORNING SESSION.

- 11—G.P.O. Clock Chimes.
- 11.15—The "Mercury" News; Stock Market; Shipping; Commercial Intelligence; Weather information. Ships within wireless range.
- 11.50—Hoot Express information.
- 12—G.P.O. Clock Chimes; Close Down.

AFTERNOON SESSION.

- 2—G.P.O. Clock and Chimes; musical Items from the Studio.
- 2.30—Robert Stock Exchange Quotations.
- 2.45—Weather Information.
- 4—G.P.O. Clock Chimes; Close Down.

EVENING SESSION.

- 7—Children's Corner, "Big Brother" chats to his pals.
- 7.15—The Adventures of George, the Book-shelf Cat, by "Aunt Stella."

NIGHT SESSION.

- 8—G.P.O. Clock Chimes; the "Mercury" Special Taxonomic News Service; Railway Auction Produce Sales; Weather Information.
- 8.10—Robert Stock Exchange Quotations.
- 8.15—Library Lapses and Library Lists, by Mr. W. E. Fuller.
- 8.30—Musical items from the Studio; Special Request numbers.
- 8.45—Thomson's District Weather Reports.
- 8.50—The "Mercury" Special Interstate News Service; Weather Synopsis; Station Announcements; National Anthem.

Wednesday, Jan. 12

2 FC

EARLY MORNING SESSION.

- 7—"Big Ben" and Announcements.
- 7.15—Music from the Studio.
- 7.15—Official Weather Forecast; Rainfall; Temperature; Astronomical Memoranda; Shipping Intelligence; Commercial News; Mail Services.
- 7.30—Investment Market; Mining Share Market; Metal Quotations.
- 7.35—Wool Sales; Breadstuffs Markets; Interstate Markets; Produce Markets.
- 7.45—"Sydney Morning Herald" News Service.
- 8—"Big Ben" "Chorico" Talk, by Mr. J. K. Powell.
- 8.15—Close down.

MORNING SESSION.

- 9.15—The Chimes of 2FC.
- 9.20—Music from the Studio.
- 10—"Big Ben" and Announcements.
- 10.5—Late "Sydney Morning Herald" News Service.
- 10.15—Music from the Studio.
- 10.45—A Morning Reading.
- 11—"Big Ben"; Australian Press Association and Reuters' cables.
- 11.10—Music from the Studio.
- 11.15—Talk on Home Cooking and Recipes, by Miss Ruth Furst.
- 11.30—Close down.

MIDDAY SESSION.

- 12—The Chimes of Big Ben; and Announcements.
- 12.15—Stock Exchange. First Call.
- 12.16—Music from the Studio.
- 12.45—From Farmer's Oak Hall—The Oak Hall Trio (leader, Mr. Horace Kosta).
- 12.50—Rushy Wireless News.
- 12.55—Miss Margot Lescaut, soprano.
- 1—The Chimes of Big Ben; Weather Intelligence.
- 1.3—"Evening News" Mid-day Service; Producers' Distributing Society's Report.
- 1.50—From Farmer's Oak Hall—Instrumental Music.
- 1.55—From the Studio—Stock Exchange, Second Call.
- 1.59—Music from the Studio.
- 1.40—Miss Margot Lescaut, soprano.
- 1.45—Music from the Studio.

2—"Big Ben"; Close Down.

Note.—The cricket match between New South Wales and South Australia will be described in full from the Sydney Cricket Ground if still in progress.

AFTERNOON SESSION.

- 2.30—The Chimes of 2FC and Announcements.
- 2.35—Broadcast from the Pitt Street Congregational Church, a vocal and organ recital.
- 3.00—From Farmer's Oak Hall, items by the Instrumental Trio.
- 3.45—From Farmer's Tom Rosens; Miss Annie Payne, mezzo, "Blossoms" (Hartstone).
- 3.45—Music from the Studio.
- 4—From Farmer's Tom Rosens, Miss Kath. Jean Horne, mezzo, "Goddess Dedicating Dance" (Chabrier).
- 4.5—From Farmer's Oak Hall, the Instrumental Trio.
- 4.45—Miss Annie Payne, mezzo, "The Wild Rose" (Schubert).
- 4.25—The Oak Hall Trio.
- 4.35—Music from the Studio.
- 4.40—Miss Kathleen Horne, mezzo, "The Pipes of Pan" (Moukton).
- 4.45—Stock Exchange, Third Call.
- 4.45—Close down.

EARLY EVENING SESSION.

- 8.45—Chimes of 2FC.
- 8.50—"The Hello Man" talks to the older children.
- 8.50—A Serial Story for the older children.
- 9.45—Dinner Music.
- 7.10—From the Studio "Evening News" late News Service. Weather Information.
- 7.30—Dainty's Market Reports (Wool, Wheat, Stock, Fruit, and Vegetable Markets).
- 7.40—Close down.

NIGHT SESSION.

- 7.55—The Chimes of 2FC and Announcements.
- 8—"Big Ben" Broadcast from the Crystal Palace, items by the Orchestra, under the baton of Mr. Harry Stone.
- 8.15—Jimmy Eklis's Jazz Band, novelty numbers.
- 8.45—From the Studio; Madame Emily Marks, soprano.
- 8.58—Mr. Norman Francis, tenor.
- 9—Miss Leslie Elliott, entertainer (a) "Oh Nigger, Nigger, does one" (Stange) (b) "Epitaphs" (Weston and Lee).
- 9.6—Mr. Wilfred Timms, basso.
- 9.16—Madame Evelyn Grieg, pianist and Mr. Henri Stahl, violinist, will give sonata No. 1 for violin and piano "Allegro con Brío" (Andante con Moto, Adagio) (Beethoven).
- 9.45—Madame Emily Marks, soprano.
- 9.55—Mr. Norman Francis, tenor.
- 10—From the Crystal Palace theatre, items by the orchestra under the baton of Mr. Harry Stone.
- 10.15—From the Studio; Miss Leslie Elliott, entertainer (a) "Homes" (Weston and Lee) (b) "Oh, Percy, you nearly made me blush" (Leslie Elliott).
- 10.22—Mr. Wilfred Timms, basso.
- 10.30—From the Studio; EFC Dance Band.
- 10.42—Celebrity records.
- 10.50—More dance items by the EFC Dance Band.
- 11—"Big Ben." Dance music until midnight.
- 12—National Anthem. Close down.

2 BL

EARLY MORNING SESSION.

- 7.15—G.P.O. Clock and Chimes.
- 7.15—Musical Programme from the Studio.
- 7.18—Physical Training and Health Exercises.
- 7.25—Health Hints.
- 7.30—Physical Training and Health Exercises.
- 7.45—G.P.O. Clock and Chimes.
- 7.45—Weather Forecast.
- 7.45—Sporting Information.
- 7.50—Broadcasters' Special News Service.
- 8—G.P.O. Clock and Chimes; Close down.

MORNING SESSION.

Basing information broadcast by courtesy of the Sun.

- 11—G.P.O. Clock and Chimes.
- 11.1—Weather Report.
- 11.5—Musical Programme from the Studio.
- 11.17—Daily Telegraph News Service.
- 11.25—Sporting Talk.
- 11.30—Women's Session, conducted by Mrs. Jordan; Social Notes.
- 11.45—Mrs. Jordan replies to correspondents.
- 11.50—Talk by Dr. Morris.
- 12—"A Day Aboard with the Camera" by Miss Elizabeth Mahoney.
- 12.15—Rubbish Market Report.
- 12.17—Fish Market Report.
- 12.19—Vegetable Market Report.
- 12.21—Fruit Market Report.
- 12.23—London Dairy Produce and Egg Market Report.
- 12.27—London Metal Quotations.
- 12.30—G.P.O. Clock and Chimes.
- 12.31—Basis in call by wireless.
- 12.35—Weather Report and forecast.
- 12.40—Shipping Information.
- 12.35—Information re Interstate and Overseas Mails.
- 12.41—Sun News Service.
- 4—G.P.O. Clock and Chimes.
- 1.1—Pianoforte Lectures Recital broadcast from the Fine Art Gallery, Anthony Hordern, by Mr. Arnold R. Mote.
- 1.40—Sydney Stock Exchange Cables.
- 1.15—Sporting information and race results from the Sun.

AFTERNOON SESSION.

- 2—G.P.O. Clock and Chimes.
- 2.1—Musical Programme from Studio.
- 2.15—News from the Sun.
- 2.30—G.P.O. Clock and Chimes.
- 2.31—Weather Report and Forecast.
- 2.33—Musical Programme from Studio.
- 2.45—Race Results.
- 2.50—Social Notes from "The Sun."
- 3—G.P.O. Clock and Chimes.
- 3.1—Racing Results.
- 3.5—News from the Sun.
- 3.15—Studio Music.
- 3.30—G.P.O. Clock and Chimes.
- 3.31—Race results.
- 3.35—News from the Sun.
- 3.45—Musical programme from the Studio.
- 4—G.P.O. Clock and Chimes.
- 4.1—Racing Results.
- 4.5—News from "The Sun."
- 4.15—Studio Story.
- 4.40—G.P.O. Clock and Chimes.
- 4.31—Producers' Distributing Society's Fruit and Vegetable Report.
- 4.35—Race Results.
- 4.39—Musical Programme from Studio.
- 4.51—Shipping news when available.
- 4.53—Race Results.
- 4.55—Resume of night's programme.
- 5—G.P.O. Clock and Chimes.
- 5.1—Resume of Day's Racing.
- 5.5—Close down.

EARLY EVENING SESSION.

- 8.45—G.P.O. Clock and Chimes.
- 8.45—Uncle George and the Kiddles.
- 6.30—Music from the Studio.
- Social Country Service.
- 7—G.P.O. Clock and Chimes.
- 7.1—Australian Mercantile Land and Finance Co's Report.
- 7.5—Weather Report and Forecast, by courtesy of Mr. C. J. Mares, Govt. Meteorologist.
- 7.9—Stock Exchange Reports.
- 7.14—Producers' Distributing Society's Fruit and Vegetable Report.
- 7.19—Fruit and Vegetable Report (Sun).
- 7.22—Grain and Fodder Report (Sun).
- 7.26—Dairy Produce Report (Sun).
- 7.30—Talk on "Books wise and otherwise."
- 7.45—Talk on Tennis, by Dr. McElhoben.

NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Broadcasters' Typical Chorus.
- 8.3—Broadcasters' Trio.
- 8.12—Miss Camille Alder, dramatic soprano.
- 8.20—Mr. Bruce Clarke, baritone.
- 6.20—Miss Madge Helmrich, contralto.

- 8.35—Mr. S. Crittenden will talk on building a valve set.
 8.45—Resume of following day's programme;
 Weather Report and Forecast.
 9.—G.P.O. Clock and Chimes.
 9.1—The Marlahini Duo, steel guitars.
 9.5—Mr. Hugh Godwin, baritone.
 9.15—Broadcasters' Trio.
 9.25—Interval.
 9.30—Miss Madge Holmrich.
 9.37—Mr. Hugh Godwin.
 9.45—The Marlahini Duo.
 9.52—Mr. Bruce Clarke.
 10.—G.P.O. Clock and Chimes.
 10.1—Broadcasters' Trio.
 10.8—Miss Camille Alder.
 10.15—Al. Hammett and the Ambassadors' Dance Band, broadcast from the Ballroom of the Ambassadors. During the intervals between dances News Reports by courtesy of the "Sun" will be broadcast.
 12.—G.P.O. Clock and Chimes; National Anthem.

2 GB

6.45—Talks to children by Uncle Joe.

EVENING SESSION.

- 7.15—Talks to Women.
 7.30—Music from Studio.
 7.45—Announcements.
 7.55—Songs, by Miss Ethel Jones.
 8.3—Address by J. V. Van der Looze.
 8.20—Piano solos by Ada Brook.
 8.30—2GB Vocal Quartette.
 8.40—Instrumental Trio.
 8.55—Songs by Miss Eva Graft.
 9.—Announcements.
 9.10—Recitation and musical monologues, by Mr. Lockwood Brown.
 9.20—Talking solo by Monica Herder.
 9.28—Talk on Radio.
 9.35—2GB Vocal Quartette.
 9.45—Recitation and musical monologues by Mr. Lockwood Brown. "Great Thoughts from Great Minds."

3 LO

MID-DAY SESSION.

- 12.—Time Signal. Reuter's and the Australian Press Association Cables; "Argus" and "Herald" News Services; Shipping Intelligence.
 12.30—3LO Melody Masters.
 12.40—Wendling and Melloy, Melody Duo, in vocal and instrumental items.
 12.50—Meteorological Information: Weather forecast for Victoria, Tasmania, South Australia and New South Wales; Ocean forecast; River Reports.
 1.—3LO Melody Masters.
 1.10—Mascoite Ralston, soprante.
 1.17—3LO Melody Masters.
 1.30—Wendling and Melloy will again entertain you.
 1.37—3LO Melody Masters.
 2.—Description of Trial Races, Warrnambool Amateur Turf Club Races, by "Musket," of the "Sporting Globe."
 2.5—Close down.
 2.50—Description of Rurdie Races, Warrnambool Races, by "Musket."
 2.55—Close down.

AFTERNOON SESSION.

- 3.—Studio Orchestra.
 3.10—Miss Frances Fraser, Traveller, "The Highway of the Thames."
 3.25—Description of Summer Handicap, Warrnambool Races, by "Musket," of the "Sporting Globe."
 3.30—Dr. Bartolini, baritone.
 3.37—Franklin Stohman, clarinet.
 3.42—Mascoite Ralston, soprante.
 3.49—Studio Orchestra.
 4.—Description of Winter Handicap, Warrnambool Races, by "Musket," of the "Sporting Globe."
 4.5—Dr. Bartolini, baritone.
 4.12—Studio Orchestra.
 4.20—Mascoite Ralston, soprante.

- 4.27—Sister Peck, "Mothercraft."
 4.35—Description of Pony Race, Warrnambool Races, by "Musket."
 4.45—"Herald" news services. Stock Exchange information.
 5.—Close down.
 5.15—Description of Flying Handicap, Warrnambool Races, by "Musket," of the "Sporting Globe."
 5.20—Close down.

EVENING SESSION.

- 5.40—Children's Hour: Answers to letters and Birthday Greetings.
 5.55—Frances Lea, soprano, will sing to the children.
 6.3—A story for the wee ones by "Mary, Mary."
 6.12—Miss Elsie Bradshaw will play to the children.
 6.19—Frances Lea has two more little songs to sing.
 6.27—Story for the older children, by "Mary, Mary, Quile Contrary."
 6.35—"Argus" and "Herald" News Services; Reuters and the Australian Press Association Cables; Shipping Movements; Overseas Shipping; Weather Synopsis.
 6.47—Stock Exchange Information.
 6.52—Fish Market Reports by J. R. Barrett Ltd.
 6.55—Liver.
 6.58—Market Reports by the Victorian Producers' Cooperative Co. Ltd.; Haymarket Sheep Sales; Poultry, Grain, Chaff, Hay, straw, oats, dairy produce, potatoes and onions.
 7.10—Market prices of oranges and lemons, by the Victorian Central Citrus Association.

NIGHT SESSION.

- 7.15—Under the auspices of the Department of Agriculture, Mr. R. Cowie, Experts Superintendent, "Market Comments."
 7.30—Mr. J. C. Wilzbacher will speak on "Dartington."
 7.45—Capt. Peters, "Books, Wise and Otherwise."
 8.—Ernest G. Green and the Tivoli Theatre Orchestra, by permission of J. C. Williamson Ltd.
 8.30—Len Gibson's Sextette.
 8.40—Wendling and Melloy, Melody Duo.
 8.47—Pietro Sarcoli, violin.
 9.—Mr. Wallace Sharland, "Walking from Liverpool to London."
 9.15—Dr. Bartolini, baritone.
 9.22—Pipa Major Cunningham.
 9.30—Wendling and Melloy, Melody Duo.
 9.37—British Official Wireless news from Rugby. Announcements.
 9.47—Len Gibson's Sextette.
 9.57—George Webb, in happy vein.
 10.7—Dr. Bartolini, baritone.
 10.15—Pipa Major Cunningham.
 10.20—Mascoite Ralston, soprante.
 10.27—3LO Melody Masters.
 10.37—"Argus" news service. Weather forecast. Announcements.
 10.47—3LO Melody Masters.
 11.—Our Great Thought: "A contented heart is an even sea in the midst of all storms."
 11.1—3LO Melody Masters.
 11.40—God Save the King.

3 AR

MORNING SESSION.

- 11.30—British Official Wireless Press received from Rugby Super Wireless Station, England, by 3AR's Operator; Events of the Day; Express Train Information; "Age" News Bulletin, exclusive to 3AR.
 12.—Time Signal Chime from G.P.O.; Studio Barometer and Outdoor Thermometer Readings; First Weather Forecast; Sporting News; Events of the Day.
 12.1—Musical selections from the Studio.
 12.30—Stock Exchange news; market reports.
 12.40—Musical Selections.

- 12.55—Shipping Movements; Mail Notices.
 1.—Close Down.

AFTERNOON SESSION.

- 2.30—Miss Amanda Clancy, violinist.
 2.37—The Classic Trio.
 2.53—Miss Owen, contralto.
 3.—Mr. Stafford Byrne, cellist.
 3.7—The Classic Trio.
 3.25—Miss Burns, contralto.
 3.30—The Studio Trio.
 4.—Time Signal Chime; 2nd Weather Forecast; Studio Quartet.
 4.55—Evening Amusements.
 5.—Time Signal Chime; Studio Barometer Readings; Close Down.

EARLY EVENING SESSION.

6.45—Children's Corner, by Uncle Rad.

EVENING SESSION.

- 7.50—British Official Wireless Press; Studio Barometer Readings.
 8.—Miss Phyllis Shattock, solo pianist.
 8.7—Mr. Arthur Kempton, baritone.
 8.14—Miss Owen, soprano, violinist.
 8.22—Mr. Pip Powell, humorist.
 8.30—Mr. Dick Bedford, "The Care of the Ford Car."
 8.45—Mr. Stanley Stevens, tenor.
 8.52—Miss Minnie Marks, soprano.
 8.59—Miss Owen, Hayman, violinist.
 9.—Miss Violet Howard, mezzo.
 9.13—Mr. Pip Powell, humorist.
 9.21—Miss Minnie Marks, soprano.
 9.28—Mr. Arthur Kempton, baritone.
 9.35—Miss Phyllis Shattock, pianist.
 9.48—Mr. Stanley Stevens, tenor.
 9.51—Miss Violet Howard, mezzo.
 10.—Time Signal Chime from G.P.O.; Studio Barometer Readings; "Age" News Bulletin.
 10.10—Lugnet's Hallroom Orchestra.
 11.—Close down.

4 QG

EARLY MORNING SESSION.

- 6.00—Physical Culture Session.
 7.—Close Down.

MIDDAY SESSION.

- 12.55—Time in.
 1.—Time Signal.
 1.—Market Reports. Weather information, "The Daily Mail" and "The Daily Standard" news.
 1.10—From Hotel Carlton: Lunch Music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
 2.—Close down.

AFTERNOON SESSION.

- 2.30—From Hotel Carlton: Afternoon Tea Music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
 4.15—"The Telegraph" news.
 4.30—Close down.

EARLY EVENING SESSION.

- 4.—News Service supplied by the "Daily Standard"; Weather information, supplied by the Commonwealth Weather Bureau; Announcements.
 6.30—"The Children's Session; Stories by "Little Miss Brisbane."
 7.—From the Council of Agriculture—Market Reports; Lectures: "Farmers' Sheep in Queensland—Sheep Breeding Experiments," Mr. A. Carey.
 7.50—From the Studio: Stock Reports; Announcements; Weather Information.

NIGHT SESSION.

- 7.45—Lecture Session, "A Traveller's Talk," Mr. C. V. Woodland.
 8.—A Scottish night concert.
 9.—Metropolitan Weather Forecast; Concert continued.
 10.—From the Studio: "The Daily Mail" News; Weather News; Close down.

7 ZL

MORNING SESSION.

- 11.—G.P.O. Clock and Chimes; the "Mercury" News; Stock Market; Shipping; Commer-

cial intelligence; Weather information, and
Sporing Anticipations; Ships within wire-
less range; Bahama selections.

12-5 P.O. Clock Chimes; Close Down.

AFTERNOON SESSION.

3-6 P.O. Clock Chimes; Musical Items from
the Studio; Story from Illustrated Tasmanian
Mail.

3:30-Hobart Stock Exchange Quotations.

3:25-Weather Information.

4-6 P.O. Clock Chimes; Close Down.

EVENING SESSION.

7-Children's Corner, "Big Brother" chats to
his pals.

7:15-Story from Illustrated Tasmanian Mail
NIGHT SESSION.

8-6 P.O. Clock Chimes; the "Mercury"
Special Tasmanian News Service; Railway
Auction; Produce Sales; Weather Infor-
mation and Sporting Results.

8:5-Hobart Stock Exchange Quotations.

8:10-Abattoirs and Stock Market Reports
from Roberts and Co. Ltd., Murray St.,
Hobart.

8:15-Physical Culture talk by Mr. George
Collis.

8:30-Concert from the Studio.

8:15-Tasmanian District Weather Reports.

9:00-The "Mercury" Special Interstate News
Service; Weather Synopsis; Station An-
nouncements; Ships within wireless range.
National Anthem.

Thursday, Jan. 13

2 F C

EARLY MORNING SESSION.

7-"Big Ben" and Announcements.
7:5-Music from the Studio.

7:10-Official Weather Forecast, Rainfall;
Temperatures; Astronomical; Meteorology;
Shipping Intelligence; Commercial News;
Mail Services.

7:25-Investment Market; Mining Shares Mar-
ket; Metal Quotations.

7:35-Wool Sales; Broadstuffs Markets;
Interstate Markets; Produce Markets.

7:45-"Sydney Morning Herald" News Service

8-"Big Ben," "Cheerio" Talk by Mr. J. K.
Powell.

8:15-Close down.

MORNING SESSION.

9:15-The Chimes of 2FC.

9:20-Music from the Studio.

9:30-Marching Music for School Children.

9:45-Talk by 2FC Rector Commissioner.

10-"Big Ben" and Announcements.

10:5-Late "Sydney Morning Herald" News
Service.

10:15-Music from the Studio.

10:45-A Morning Reading.

11-"Big Ben"; Australian Proas Association
and Reader's Cable.

11:10-Music from the Studio.

11:15-A Dickens Reading by Mr. G. C.
Paine.

11:30-Close down.

MIDDAY SESSION.

12-The Chimes of Big Ben; and Announce-
ments.

12:5-Stock Exchange; Railway Auction;
Produce Sales; Weather Information;
Shipping Intelligence; Commercial News;
Mail Services.

12:10-Music from the Studio.

12:45-From Farmer's Tea Rooms; The Oak
Hall Trio.

12:50-News from the Studio.

12:55-Miss Enid D'Arcy, soprano.

1:00-Music from the Studio.

1:05-"Evening News" and Announcements.

1:10-The Oak Hall Trio.

1:15-Stock Exchange; Railway Auction;
Produce Sales; Weather Information;
Shipping Intelligence; Commercial News;
Mail Services.

1:20-Music from the Studio.

1:45-News from the Studio.

1:55-Talk by 2FC Rector Commissioner.

2-"Big Ben" and Announcements.

2:05-Music from the Studio.

2:10-Announcements; Piano Solo.

- 3-A Reading, from the Studio.
3:15-Some New Records.
3:20-Studio Music.
3:40-From Farmer's Tea Rooms: Miss
Sybil Atholwood, mezzo.
3:45-Instrumental Music from the Oak Hall
Trio.
3:55-Music from the Studio.
4-From Farmer's Tea Rooms: Miss
Dorothy Benbow, contralto.
4:5-The Oak Hall Trio.
4:15-Studio Music.
4:20-From Farmer's Tea Rooms: Miss
Sybil Atholwood, mezzo.
4:25-The Oak Hall Trio.
4:35-Music from the Studio.
4:40-Miss Dorothy Benbow, contralto.
4:45-Stock Exchange-Third Call.
4:45-Close down.

EARLY EVENING SESSION.

- 6:45-The Chimes of 2FC.
6:50-"Hello Man" talks to the Children
talking another trip to the Zoo, and is help-
ed with imitation with "Imito".
6:50-A Social Story for the older children.
6:45-Studio Music.
7-From the Studio: "Evening News" late news
edition.
7:30-Balagty's Market Report (wool, wheat,
Stock), Fruit and Vegetable Markets.
7:40-Close down.

NIGHT SESSION.

- 7:55-Announcements.
8-"Big Ben"; From the Studio, Newtown
Silver Band.
8:20-Mr. Alfred Cunningham, baritone, "The
Yeoman of England" (German).
8:34-Troms by the Newtown Silver Band.
8:38-Mr. Alfred Cunningham, baritone, "The
Yeoman's Wedding" (Poniatowsky).
8:42-The Newtown Silver Band.
8:52-Mr. Alfred Cunningham, baritone, (a)

- "Toreador's Song" (Carmen), Biazet; (b)
"Secerary" (Ljarske).
9-Mr. E. J. Van de Velde will give his
second series of "Who's Who in the Zoo,"
with pictures appearing in this evening's
issue of the "Evening News," illustrating
birds and animals from Zoos in different
parts of the world. During the talk "Imi-
to" (Corporal Phillips) will give imita-
tion of birds and animals and wings from
the following: Mappie, butcher bird, wattle
bird, bell bird, willie wattle, kookaburra,
cockatoo, thrush, jark.
10-Miss Virginia Bassett, soprano.
10:35-Mr. Van de Velde will give his second
portion of his talk, "Who's Who in the
Zoo." "Imito" will give imitations of the
following: Mappie, butcher bird, wattle
bird, bell bird, willie wattle, kookaburra,
cockatoo, thrush, jark.
10:55-Miss Dorothy Eschbank, soprano.
10:55-A talk by the Technical Editor of
"Wireless Weekly".
11:00-From the Wentworth Hotel, Items by
the New Wentworth Symphony Orchestra,
under the direction of Mr. Sydney Simp-
son.
11-"Big Ben" and Announcements.
11:45-Wentworth Dance Orchestra, until mid-
night.
12-National Anthem; Close down.

2 B L

EARLY MORNING SESSION.

- 7:15-6 P.O. Clock and Chimes.
7:10-Musical Programme from the Studio.
7:10-Physical Training and Health Exer-
cises.
7:20-Health Hints.
7:30-Physical Training and Health Exer-
cises.
7:45-6 P.O. Clock and Chimes.

Here's Proof
that the
'LOTUS'
survives
shock!



EIGHT 'LOTUS' Valve Holders fitted with large power valves
and fixed to tailboard of Ford Motor Lorry, driven over rough
roads for 30 miles, survived the test.
At the finish, each spring was as it started - perfect. No
damage or looseness at connection of leg socket and spring -
no valve loose from the holder. Both were electrically perfect
all the way.

Fit the 'LOTUS' to your set and protect your valves.

Advertisement for LOTUS VALVE HOLDER, featuring a large illustration of the product and descriptive text.

John Arnold, P.O. Box 871, Degraaf Street Melbourne.
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CLEAR AS A BELL

has proved through years of meticulous care and scientific experiment, that for volume, tone, line tone and selectivity it is the pre-eminent medium between broadcaster and receiver.



These two units have no equal for beauty in all products and in the Sonora Radio, and the qualities to cover it. The radio used in these units, such liquid note flowing from its crystalline housing and mellow resonance.

Extreme selectivity contributes to the wonderful tone quality. Between stations, however, still as the night-time the clear, in the proper setting and a resonant voice musically wells forth unmarred by the noise of other stations.

In the Sonora-Radio, they are not only beautiful, but they are built to last. The Sonora-Radio is a masterpiece of engineering and craftsmanship. It is a true masterpiece of engineering and craftsmanship.

Sonora-Radio

PRESENTS ITSELF AS THE MASTERPIECE OF SCIENTIFIC PERFECTION

THE MOST ADVANCED INSTRUMENT IN THE WORLD

Call or Write for Catalogue
E. & F. WILKS & CO. LTD.

- 7.45—Weather forecast
- 7.48—Sporting information
- 7.50—Readers' Special News Service
- 8—G.P.O. Clock and Chimes; Close down

MORNING SESSION.

- 10—G.P.O. Clock and Chimes
- 10.1—Weather Report
- 10.3—Musical programme from the studio
- 10.30—Daily Telegraph news.
- 10.42—Studio Music
- 10.45—Serial Story
- 11—G.P.O. Clock and Chimes.
- 11.1—Ten Minutes' Talk supplied by the N.R.M.A.
- 11.11—News from the Daily Telegraph.
- 11.20—Fruit Market Report
- 11.22—Fish Market Report
- 11.24—Vegetable Market Report.
- 11.25—Fruit Market Report.
- 11.27—London Daily Produce and Egg Market Report.
- 11.30—London Metal Quotations.
- 11.31—Ships in sail by wireless.
- 11.33—Information re Interstate and Overseas Mails.
- 11.34—Shipping information—arrivals and departures
- 11.35—Sporting Talk.
- 11.40—Women's Session; Social Notes by Mrs. Jordan.
- 11.50—Mrs. Jordan replies to correspondents.
- 12—G.P.O. Clock and Chimes.
- 12.1—Talk by Mrs. Jordan.
- 12.25—News from the "Sun."
- 12.30—G.P.O. Clock and Chimes
- 12.31—Sydney Stock Exchange Calls.
- 12.33—Sun News Service
- 12.45—Hillier's Instrumental Quartet, Director Cyril Caedon.
- 1.30—G.P.O. Clock and Chimes
- 1.31—Weather Report.
- 1.33—Stock Exchange Calls.
- 1.35—News from the Sun.
- 1.45—Studio Music
- 2—G.P.O. Clock and Chimes; Close down.

AFTERNOON SESSION.

- Racing Information, broadcast by courtesy of the Sun.
- 3—G.P.O. Clock and Chimes.
- 3.1—Weather Report and Forecast by courtesy of Govt. Meteorologist
- 3.5—Social News from the "Sun."
- 3.10—News from the "Sun."
- 3.20—Music from the Studio.
- 3.30—Country Women's Session.
- 3.45—Musical programme from the Studio.
- 4—G.P.O. Clock and Chimes
- 4.1—Music from the Studio.
- 4.15—Serial Story.
- 4.30—G.P.O. Clock and Chimes.
- 4.35—Music from the Studio
- 4.45—Producers' Distributing Society's Vegetable and Fruit Markets Report
- 4.50—Shipping information when available
- 4.52—Day's Racing Resume on Race Days.
- 4.55—News from the "Sun"
- 5—Social News from the "Sun."
- 5—G.P.O. Clock and Chimes. Close down.

EARLY EVENING SESSION.

- 5.45—G.P.O. Clock and Chimes.
- 5.48—Uncle George and the children.
- 5.49—Music from the Studio.
- 5.50—Country Women's Session
- 7—G.P.O. Clock and Chimes.
- 7.1—Australian Musicians' Association and Finance Co's. Remittance Report
- 7.6—Weather Report and Forecast by courtesy of Govt. Meteorologist
- 7.9—Stock Exchange Report
- 7.14—Producers' Distributing Society's Fruit and Vegetable Markets Report
- 7.19—Fruit and Vegetable Report
- 7.23—Grain and Foodstuffs Report
- 7.29—Retail Report
- 7.30—Country News from the Studio
- 7.45—Talk, "The Development of Motion Pictures within the Empire," Mr. J. O'Donoghue.

NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Broadcasters' Typical Chorus.
- 9.3—The Ambassadors Instrumental Quartet.
- 8.15—Fashion and Social Notes broadcast from the Ballroom of the Ambassadors.
- 9.20—Ambassadors' Quartet.
- 9.30—Miss Heather Kinnaird, contralto.
- 9.37—Miss Molly Raynor, comedienne.
- 9.45—The Orpheum Amateur Orchestra Society.
- 9.50—Resume of following day's programme; Weather Report and Forecast.
- 9—G.P.O. Clock and Chimes.
- 9.1—Miss Ella Goodman, soprano.
- 9.8—Mr. Clem Williams, baritone.
- 9.15—Fashion and Social Notes broadcast from the Ambassadors.
- 9.20—Orpheum Orchestral Society.
- 9.30—Interval.
- 9.42—Miss Heather Kinnaird.
- 9.49—Miss Molly Raynor.
- 9.56—Miss Ella Goodman.
- 10.4—Mr. Clem Williams.
- 10.11—Al. Hainstock and the Ambassadors' Dance Band, broadcast from the Ballroom of the Ambassadors. During the intervals between dances, News Reports by courtesy of the Sun Newspapers will be broadcast.
- 12—G.P.O. Clock and Chimes; National Anthem.

3 L O

MID-DAY SESSION.

- 12 noon—Time Signal; British Official Wireless News from Rugby; Reuters and the Australian Press Association Cables; "Argus" and "Herald" News Services; Shipping Intelligence.
- 12.30—Studio Orchestra.
- 12.40—The Royal News.
- 12.50—Weather Reports; Stock Exchange Information.
- 1—Pietro Sacchi, violin.
- 1.10—Georga Weisk, harmonica.
- 1.15—Studio Orchestra.
- 1.20—The Royal News.
- 1.35—Franklin Stohman, clarinet.
- 1.42—Studio Orchestra.
- 2—Description of Breakwater Harbours, War-nanted races, by "Musketeer" of the "Sporting Globe".
- Close down.
- 2.35—Description of the Cornishman Handicap by Musketeer.

AFTERNOON SESSION.

- 3—Studio Orchestra.
- 3.10—Dr. Bartolini, baritone.
- 3.17—Description of Beach Steeple, by Musketeer.
- 3.20—Victoria Wilson, soprano.
- 3.27—Studio Orchestra.
- 3.37—Wendling and Molloy, melody duo.
- 3.47—Dorothy Roxburgh, violin.
- 3.55—Description of Lindsay Cup, by Musketeer.
- 4—Studio Orchestra.
- 4.10—Victoria Wilson, soprano.
- 4.17—Walter Smith, cornet.
- 4.22—Wendling and Molloy.
- 4.30—"Mary Gumleaf," the poems of Henry Arthur.
- 4.35—Description of Pony race by Musketeer.
- 4.45—Continuation of "Mary Gumleaf" talk.
- 4.50—"Herald" News Service; Stock Exchange information.
- 5—Close down.
- 5.10—Description of Final Handicap.
- Close down.

EVENING SESSION.

- 5.40—Children's Hour; Answers to letters and birthday greetings.
- 5.55—Pat Maclean will entertain the children.
- 6.2—"Mary Gumleaf" poems.
- 6.12—Miss Elsie Bradshaw will play to the children.
- 6.17—Pat Maclean will make you laugh.
- 6.24—"Mary Gumleaf," story for the bigger children.
- 6.35—"Argus" and "Herald" News Services; Shipping Movements; Overseas Shipping; Weather Synopsis.
- 6.47—Stock Exchange Information.

"Ever-Ready" are Always Ready

Whether it is old year or New Year, "Ever-Ready" Radio Batteries are reliable—ready to meet your requirements at all times. For satisfaction and service "Ever-Ready" Radio Batteries are commended by thousands of wireless enthusiasts. Install them now and prove their merit in the days to come.

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THE "STANDARD" DRY CELL RADIO BATTERY.

Price 3/-

The Ever-Ready Radio "Standard" Dry Cell, as illustrated, is fitted with two screw terminals, and since its introduction has met with great success, more recognizing its inherent superiority over any imported cell. Size, 2 1/4 x 6 1/2. Weight, 7 lbs. Also for bells, telephones, signalling and electro-medical apparatus, &c.



NEW EVER-READY No. 126, OR "A," "B," OR "C" BATTERY.

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One of a group of radio batteries. Useful in wireless, lighting, and amplification. Size, 3 1/4 x 4 x 1 1/8. Most useful for bells, telephones, burglar alarms, musical coils, etc. With three brass terminals. Voltages 1.5, 3 or 4.5 volts. Useful for all wireless purposes as well as general utility.



WANDA PLUG RADIO BATTERY.

This illustrates the new radio high-tension "B" battery, which can be obtained 31/2, 42 or 65 volts—fitted with a Wanda plug, and 2 screw terminals.

Price:

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- Small size, type WP, 42 volt ... 12/6
- Small size, type WP, 65 volt ... 18/-
- Large size, type XP, 41.5 volt ... 18/-
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If obtainable locally write for address of nearest source of supply to

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163 Pitt Street

SYDNEY



"STANDARD" "A" BATTERY.

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The Ever-Ready "Standard" "A" Battery (8 cells, 4.5 volt, specially designed for economical operation of 1, 2, or 3 valves, taking .06 amperes at 2 volts. For sets with four or more valves, the most economical service is obtained by using two "Standard" "A" batteries connected in parallel.

The Moving Block Cannot Fall

The vernier movement comprises three sets of enclined precision machine-cut gears, and reduces the speed of the moving block by eight times. Side plates, coil blocks, and knobs in artistic bakelite mouldings. All metal parts heavily nickel plated. Made for left as well as right hand.



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TWO TYPES:

For outside panel mounting, two-way, 11", and three-way, 16".
6 inch handle, two-way, 12", and three-way, 19".

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COIL HOLDERS

Made by the makers of the famous Lotus Buoyancy Valve Holder.

Garnett, Whitley & Co. Ltd.,
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John Arnold, P.O. Box B71,
Degraives Buildings, Degraives
Street, Melbourne.

- Overcast Shipping.
8.62—Fish Market Reports by J. R. Borrett Ltd.
8.65—River Reports.
7.—Market Reports by the Victorian Producers' Cooperative Co. Ltd.; Haymarket Sheep Sales; Poultry, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions; Market prices of oranges and lemons by the Victorian Central Citrus Association.
7.10—Market price of Oranges and Lemons by the Victorian Central Citrus Association Pty. Ltd.

NIGHT SESSION.

- 7.15—Lecture under the auspices of the Amateur Athletic Association of Victoria, "A. N. A. Holiday Reports."
7.30—Mr. P. Kardon, "Viral Hygiene."
7.45—Mr. Pascoe will speak on "Bowls."
8.—ELO Melody Masters.
8.10—Pat McLean will give one of her child imitations.
8.14—ELO Melody Masters.
8.21—George Walker, baritone.
8.28—ELO Melody Masters.
8.35—Wendling and Molloy, melody duo.
8.42—ELO Melody Masters.
8.52—Bob Moyneux, baritone.
8.58—ELO Melody Masters.
9.—Pat McLean, entertainer.
9.10—ELO Melody Masters.
9.20—George Walker, baritone.
9.25—ELO Melody Masters.
9.34—Wendling and Molloy.
9.38—ELO Melody Masters.
9.48—Bob Moyneux, baritone.
9.55—ELO Melody Masters.
10.1—British Official Wireless News; "Argus" News Service; Meteorological information; announcements.
10.12—ELO Melody Masters.
10.27—Geo. Walker, baritone.
10.32—ELO Melody Masters.
10.41—Bob Moyneux, baritone.
10.45—ELO Melody Masters.
11.—Our Great Thought: "If there is a virtue in the world as which we should always aim, it is cheerfulness."—Bulwer-Lytton.
11.1—ELO Melody Masters.
11.40—God Save the King.

3 AR

MORNING SESSION.

- 11.30—British Official Wireless Press, received from Rugby Super Wireless Station, England, by 3AR's Operator; Events of the Day; Express Train Information; "Age" News Bulletin exclusive to 3AR.
12.—Time Signal Chime; First Weather Report; Events of the day; Studio Barometer Readings.
12.5—Musical selections from the studio.
12.50—Stock Exchange News; Market Reports.
12.40—Musical Selections.
12.55—Shipping Movements; Mail Notices.
1.—Close Down.

AFTERNOON SESSION.

- 2.30—Musical selections by the Studio Trio.
4.—Time Signal Chimes; 2nd Weather Forecast; Studio Trio.
4.55—Evening Amusement Guide. Barometer Readings; close down.

EARLY EVENING SESSION.

- 6.45—Children's Corner—Uncle Steve.

EVENING SESSION.

- 7.45—British Official Wireless Press; Studio Barometer and Outdoor Thermometer Readings; Special Pig and Calf Report, supplied by courtesy of Messrs. McPhail, Anderson and Co. Pty. Ltd.; Fat Sheep and Cattle Report, supplied by courtesy of Messrs. John McNameara & Co.
8.—Clarke's Dance Orchestra.
8.14—Miss Isobel Harris, lyric soprano.
8.21—Mr. Frederick B. Beekwith, "Science of Education."
8.58—Miss Ruth Phillips, soprano.
8.43—Miss Dorothea Borchers, entertainer.
8.50—Mr. Harold Stevens, pianist.
8.57—Clarke's Dance Orchestra.
9.45—Mr. Rapert Wood, talk on preparing food.
9.10—Mr. Harold Stevens, pianist.
9.25—Miss Isobel Harris, lyric soprano.

- 9.58—Miss Dorothea Borchers and Miss Sylvia Butler, dialogue.
6.47—Clarke's Dance Orchestra.
10.9—Time Signal Chime; Studio Barometer Readings; "Age" News Bulletin exclusive to 3AR; Tourist and Road information, supplied by courtesy of Pioneer Tourist Coaches Pty. Ltd.
10.16—Leggett's Dance Orchestra.
11.—Close down.

4QG

MIDDAY SESSION.

- 12.55—Tune in.
12.58—Time Signal.
1.—Market Reports. Weather information. "The Daily Mail" and "The Daily Standard" news.
1.35—From Hotel Carlton; Lunch Music from the Lounge; Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
3.—Close down.

AFTERNOON SESSION.

- 4.10—A programme of Music from the Studio.
4.15—"The Telegraph" news.
4.30—Close down.

EARLY EVENING SESSION.

- 6—"Daily Standard" News; Weather information; Announcements.
6.30—"The Children's Session" Stories by "The Sandman."
7.—From the Council of Agriculture; Market Reports; Lecture, "Agricultural Courses at the Cornell University, New York," by Mr. R. J. A. McMillan.
7.30—From the Studio; Stock Reports; Announcements.

NIGHT SESSION.

- 7.45—Lecture Session, "A Talk on Books," by Mr. W. A. Irwin.
8.—Studio Concert.
9.—From the Band room, music by the Greater Brisbane Municipal Concert Band.
10.—From the Studio; "The Daily Mail" news; Weather News; Close down.

T. C. C. Condensers

A good condenser is essential to good reception. Don't bother with cheap substitutes. T.C.C. Condensers are not expensive and are fully guaranteed against breakdown.

If it's a T.C.C. Green Condenser you can absolutely depend upon it—

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"OSRAM" Valves in your receiver will ensure the most faithful reproduction of broadcasted speech and music.

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Characteristics	Characteristics	Characteristics.	Characteristics.	Characteristics.	Characteristics.
Filament Volts 1.8 Filament Current 0.12 amps. Anode Volts 20-50. Impedance 22,000 ohms. Ampli- fication Factor 7.	Filament Volts 1.8 Filament Current 0.12 amps. Anode Volts 20-50. Impedance 45,000 ohms. Ampli- fication Factor 12.	Filament volts 1.8 to 2 max. Filament cur- rent 0.2 amps. Anode volts 20-120. Imped- ance 10,000 ohms. Amplification Factor 5.5.	Filament volts 2.8 Filament Current 0.06 amps. Anode Volts 20-50. Impedance 22,000 ohms. Ampli- fication Factor 7.	Filament Volts 2.8 Filament Current 0.06 amps. H.T. volts 20-120. Im- pedance 50,000 ohms. Amplification Factor 17.	Filament Volts 3.5 Filament Current 0.5 amps. Anode Volts 20-120. Impedance 10,000 ohms. Ampli- fication Factor 7.

Oscillator and Detector D.E.2 L.F.
Intermediate Frequency D.E.2 H.V.
Amplifier D.E.4.

Oscillator and Detector D.E.3.
Intermediate Frequency D.E.3B.
Amplifier D.E.4.

FOR USE WITH SIX-VOLT ACCUMULATOR.

D.E.5 .. 12/-	D.E.5B .. 12/-	D.E.5A .. 22/4	D.E.8 H.F. .. 11/6	D.E.8 L.F. .. 12/4
Characteristics.	Characteristics.	Characteristics.	Characteristics.	Characteristics.
Filament Volts 5 to 6. Filament Current 0.25 amps. Anode Volts 20-120. Impedance 20,000 ohms. Ampli- fication Factor 7.	Filament Volts 5 to 6. Filament Current 0.25 amp. Anode volts 20-120. Im- pedance 30,000 ohms. Amplification Factor 20.	Filament Volts 5 to 6. Filament Current 0.25 amps. Anode Volts 20-120. Impedance 25,000 ohms. Ampli- fication Factor 2.5.	Filament Volts 5.5 to 6. Filament Current 0.12 amps. Anode Volts 20-120. Im-Volts 20-100. Impedance 25,000 ohms. Ampli- fication Factor 7.	Filament Volt 5.5 to 6. Filament Current 0.12 amps. Anode Volts 20-100. Imped- ance 8,000 ohms. Ampli- fication Factor 7.

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Super Heterodyne
Kits and ensure
Perfect Reception
28/10-

Oscillator and Detector, D.E.5 or D.E.8 L.F. Intermediate Frequency, D.E.5B or D.E.8 H.F. Amplifier, D.E.5 or D.E.5A.

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New Additions to



Colmovox Model

CREATIONS IN

Designing these new broadcasting receivers, Colmovox has successfully reproduced the radio needs of the Australian home.

Three definite advantages go with the Colmovox—simplicity, simplicity of control—reproduction of exceptional clearness in any desired volume—a handsomely built

Colmovox 2 Valve Receiver	£12 10 0
Colmovox 3 Valve Receiver	£15 10 0
Colmovox 4 Valve Receiver	£18 10 0
Colmovox 5 Valve Receiver	£22 10 0



Four Valve Colmovox Receiver

Colmovox 2 Valve Receiver with complete mesh selected coil, average wire antenna, all round horizontal, rotary switch, etc.

Two Valve Set	£12 10 0
Three Valve Set	£15 10 0
Four Valve Set	£18 10 0
Five Valve Set	£22 10 0

The necessary accessory to get these sets into operation is included and—
 Accessories for two valve set £2 5 0
 Accessories for three valve set £3 5 0
 Accessories for four valve set £4 5 0
 Accessories for five valve set £5 5 0
 Every receiver given an ample time of testing. Price locked and firm.

Attention is drawn attention to the danger of buying a cheap set of a low quality. There is nothing so valuable as a receiver which will give you the best results. The only way to get the best results is to buy a receiver which is built to last. The only way to get the best results is to buy a receiver which is built to last.

COLMOVOK

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Colmovox Lines

RADIO SETS

are designed for quiet dignity and convenience without undue cost.

The Colmovox reduces to a minimum all complicated dialing, and saves the novice on the same footing as the radio expert. In point of selectivity and distance Colmovox Broadcast Receivers also satisfy the most discriminating.

Price	Depth	Width
12 2 0	22 7 0	10 2 0
15 2 0	22 7 0	10 2 0
18 2 0	22 7 0	10 2 0
22 2 0	22 7 0	10 2 0

Colmovox types are complete with all accessories, including test aerial, antenna, etc.

Price	Depth	Width
12 2 0	22 7 0	10 2 0
15 2 0	22 7 0	10 2 0
18 2 0	22 7 0	10 2 0
22 2 0	22 7 0	10 2 0

COLVILLE MOORE WIRELESS SUPPLIES

LAWRENCE

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(Near Flecton Arcade)

SYDNEY



Colmovox Model



Four Valve Colmovox Receiver

Attention is drawn attention to the danger of buying a cheap set of a low quality. There is nothing so valuable as a receiver which will give you the best results. The only way to get the best results is to buy a receiver which is built to last. The only way to get the best results is to buy a receiver which is built to last.

COLMOVOK

Extract from Melbourne Argus
 December 4th
WIRELESS SETS.
SIMILARITY IN MAKE.
Interim Injunction Granted.
 Three portable wireless sets were exhibited in the Practice Court yesterday when Mr Justice Mann was asked to grant an interlocutory injunction on a Supreme Court writ issued out by the Louis Coon Wire- less Pty. Ltd., Melbourne. . . .
 It was allowed on behalf of the Plaintiff
 Mr. Justice Mann said
 The design of defendant's manufac- tures closely resembled the design and general appearance of plaintiff's machine
 An interlocutory injunction would accordingly be granted.

Success of the "Porta" attracts imitations!

INTERIM INJUNCTION GRANTED!

AN IDEAL XMAS GIFT.

THE IMMEDIATE POPULARITY which the "PORTA" enjoyed after its introduction soon enticed others to copy the original design of this ingenious portable Radio Set, and in order to protect the public legal proceedings were at once instituted to prevent misrepresentation. The interim injunction which has been granted indicates that the Court at once gave the protection sought, and has ordered the discontinuance of others attempting to manufacture or pass off any machine the same as the "PORTA." **WARNING!**—Anyone seeking to make or sell Portable Radio Sets of the same design and exclusive features as the "PORTA" will at once be issued legal notice and proceedings taken without delay. Any information from the public of imitations will be appreciated.

ENTERTAINS EVERYWHERE.

The compact, non-wired "PORTA" SET is simplicity itself, simple upon the lid and automatically the set will operate to perfection. It is absolutely self-contained, complete with all accessories, including the Stromer Speaker. No aerial, no earth. Terms arranged. Write for literature or call and hear the wonderful "PORTA."

TAKE IT WITH YOU ON YOUR HOLIDAYS. MUSIC IN A MOMENT—JUST OPEN THE LID.

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"The PINNACLE" "PORTA"

SELF CONTAINED RADIO SET

£ **39.10**



At all
 Radio
 Stores

MISS MASCOTTE RALSTON.

AMONG the younger set of stage favourites, there are few more popular girls than Miss Mascotte Ralston, who recently began a brief season of broadcasting from 3LO. She is seen on our cover this week. Mascotte is one of those extremely fortunate people, lavishly gifted in a dozen different ways, and, in each, equally clever. She might easily have made a name for herself in a score of directions, but, coming from a family closely connected with the theatre, it was inevitable that she should choose this channel as an outlet for her talents.

The finished artistic performance of her father, John Ralston, as Franz Schubert in "Lilac Time," is yet a fragrant memory with theatre goers, and it was during this production that Mascotte rapidly rose from chorus to the part of Tili, a role which called for much grace of acting and finished vocalism. The next time theatre goers made the acquaintance of this little lady was in a comedy part in "Nothing but Lies," where, with Mr. Harry Green, she played a delightful comedy role, bringing out the subtlety and humour with convincing ability.

Her vocal repertoire is wide and varied, covering the ground from Grand Opera to the dainty little ditties she sings to the accompaniment of her own Ukelele—and these are the numbers she has selected to broadcast from the studio. In her spare time she is a keen athlete, golf and tennis being first favourites. She was "runner" up in the recent "Miss Australia" competition, and her "nearness" to being the selected one, brought reams of correspondence to her doors, one well-known physical culture expert offering to train and enter her for any championships against "all comers." The offer was gracefully declined.

Miss Mascotte is no stranger to the studio—she has been heard in Ukelele duets with Miss Vera Spaul, but this time listeners are to have the pleasure of renewing their acquaintance with her delightful voice as heard in "Lilac Time."

Avoid Radio Replacements

A List of Accessories
from Farmer's

which will give lasting service

Radio Accessories that are built to last. No longer any of those annoying break-downs necessitating replacement of worn-out or defective parts at frequent intervals. All wireless accessories purchased at Farmer's are of guaranteed reliability, and will give the same satisfactory results for years to come.



"Mars" Aerial Wire, 84 strand, super aerial cable, 100 feet lengths. Price 12/6

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"De Jur" 30 ohm rheostat, single hole mounting. Assembled. Price 3/8



"Sensory" Standard Base Sockets, of genuine bakelite.
Price 3/-



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"Radiokes" Radio frequency kit as used in the Browning Drake Circuit. Complete with blue print. Price 42/-



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You could not obtain better results than those given by ELECTRON WIRE—the aerial which popularised broadcasting in Great Britain.

It is the only aerial which gives long-distance reception with volume and clearness.

ELECTRON WIRE is reliable—it brings in signals when other aerials would fail. That is why ELECTRON WIRE is so popular in Great Britain.

Electron Wire brings Wireless
Within the Reach of Everybody

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| It Abolishes Masts. | It Saves Money. |
| It Abolishes Renewals. | It Brings Results. |

Fool-proof — Storm-proof — Trouble-proof

Price **2/6** Retail

IT'S SO EASY TO FIX, TOO!!

You can simply fling it over a tree, over the roof, round a chimney, run it along the fence, around the picture rail, across the room, hang it out of the window, or where and how you like, and the results are there. Connect one end to your set, let the other be free, use a short piece as an earth and—there you are. Perfect reception and immediate satisfaction.

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Proprietors: The New London Electron Works Ltd., London, England.

AERIAL MASTS
ABSOLUTELY
UNNECESSARY



How to Add a Stage of Audio Frequency to Your Present Receiver

OUITE a goodly number of people at times desire a little more volume from their receivers and really do not know just how to go about doing this. This applies to many owners of crystal sets or one and two valve sets.

At the very outset it must be said that if more volume is required from any receiver of the type enumerated above it is essential to add a stage of low frequency or as it is more frequently known audio frequency amplification. Now, audio frequency amplification, as its name implies, is added to an existing receiver after the signals are detected, hence the name audio frequency amplifier. What happens is that the detected signal, which is of audible strength, is built up in volume, thus increasing in strength a very weak signal to one of greater volume.

This does not apply to radio or, as it is sometimes known, high frequency amplification. In this instance the signal strength of the incoming signal is built up prior to detection, and has not the same effect of increasing the volume of the local broadcasting station as it has of increasing the strength of the distant broadcasting station.

It is our intention in this short article to describe how to increase the volume of the local station to make it suitable for more than one pair of headphones for loud speaker results according to the set to which this arrangement is added. At the very outset it must be understood that we do not advocate the addition of this particular unit to a receiver already employing two stages of audio frequency amplification. Two stages of low frequency amplification will suffice for all general purposes, and if the constructor desires to add a further valve to his three-valve set employing two stages of low frequency amplification it will suit his purpose to add a stage of high frequency instead of low frequency.

There are many proud possessors of one and two valve sets such as the

From the hundreds of enquiries reaching the Technical Editor for a method of increasing the volume of a receiver without making extensive alterations, it is evident that the loud speaker is superseding headphones in many homes.

receiver described in this week's "Wireless Weekly," and also that one described in last week's journal who may find that the volume is not sufficient for their purpose. To these people will this unit appeal, and also to those who have any of the well-known makes of two valve receivers, the exception being the Harkness Reflex and the "Wireless Weekly" two-valve redex recently described. The parts required are few. Here is a list of them:—

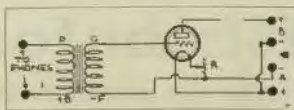
- 1 Panel.
- 1 30-ohms rheostat.
- 1 Valve socket.
- 1 Audio frequency transformer.
- 1 Baseboard.
- 3 Terminals.
- 3 Lengths of busbar.

Discussing these materials, let us point out that the actual size of the panel should be governed according to the size panel used in the existing receiver. For example, should the panel of the existing one-valve receiver be, say, 9 inches long by 7 inches high, a suitable size for this unit would be 5 inches long by 7 in-

ches high, the same size panel being ideally suited if the two-valve receiver is catered for in a panel 12 inches long by 7 inches high. But again, the crystal user may desire to add this unit and to leave provision for a second stage of audio frequency amplification; therefore, in this instance a panel size 12 x 7 inches would be eminently suitable for the incorporation of the two units.

The choice of audio frequency transformer will be left to yourselves, there being many different makes to choose from. But if this is for the first stage after a one valve set or a crystal set a 5 or a 8 to 1 transformer will suit nicely, but if for a second stage then do not go beyond a 34 to 1 ratio transformer. Now the ratio of a transformer is governed by the relation of the primary winding to the secondary winding. All audio frequency transformers have a primary and a secondary winding, and the ratio is arrived at with relation to these windings. When you read of transformers of a 5 to 1 ratio or any other ratio for that matter, it is generally understood that the secondary winding of the transformer has five times the quantity of turns that the primary consists of, or 34 times or 6 times as the case may be. But it does not necessarily happen that the step-up in signal strength is of the same ratio; very rarely is it, in fact; but nevertheless the induced voltage or signal strength in the secondary winding is much higher than that of the primary winding. Hence the step-up effect.

To construct this unit very little ability is required. Firstly, prepare the panel to accept the rheostat, the four terminals and the fixing screws for attaching the panel to the baseboard. This is really very simple, and from the wiring diagram given the positions of the parts may be clearly gauged. The baseboard should be treated to one or two coats of shellac varnish, and the transformer valve sockets and terminal board should be mounted in the positions



The circuit diagram.

TWICE THE SATISFACTION

— AND —

Half the Cost

You connect up RAY-O-VAC Batteries and tune in.

The difference is amazing.

No preliminary howls, buzz, or shrill whistling. The signals come in true, clear, and strong without the slightest bother. The reason is this:

Low Internal Resistance

Ray-O-Vacs have only a fraction of the resistance of other "B" Batteries.



Nine Outstanding Features of the Ray-O-Vac

The Exclusive construction of Ray-O-Vac "B" batteries combines a number of characteristics which easily distinguish them as leaders in the "B" battery field. Nine features are outstanding:—

- 1.—Zinc can of rolled sheet stock.
- 2.—Water and acid proof egg crate partition.
- 3.—Connecting wires securely soldered.
- 4.—Insulating compound between cells.
- 5.—Waterproof outer container.
- 6.—Screw Post Terminals make positive connections with wire, cyclelet or spade connector.
- 7.—Rider in upper seal.
- 8.—Heavy non-bulging top seal.
- 9.—Screw post terminal soldered securely to individual cells.



No. 2803.

Added to this, they have remarkably long life.

And the cost is so low.

No. 9303—The Master Ray-O-Vac 45 volt; double the amperage of ordinary 45	£1 16 0
No. 2301—45 volt flat, with 7 tappings	1 6 0
No. 2303—45 volt upright, with 3 tappings	1 6 0
No. 2151—22½ volt flat, with 6 tappings	0 15 9
No. 2153—22½ volt upright, 2 terminals only. Specially recommended for detector valve	0 15 0
No. 5151—BP 22½ volt medium	0 12 6
No. 4151—22½ volt for portable sets	0 10 6
No. 231R—4½ "C" battery. Voltage adjustment of 1½, 3, and 4½ volt; can be used as A, B, or C battery	0 4 6
No. 531R—4½ volt Grid Bias "C" Battery	0 3 6
No. 1211—1½ volt "A" battery—the best 1½ volt single cell on the market to-day	0 3 3
No. 6 —1½ volt cell for radio or telephone use	0 3 3
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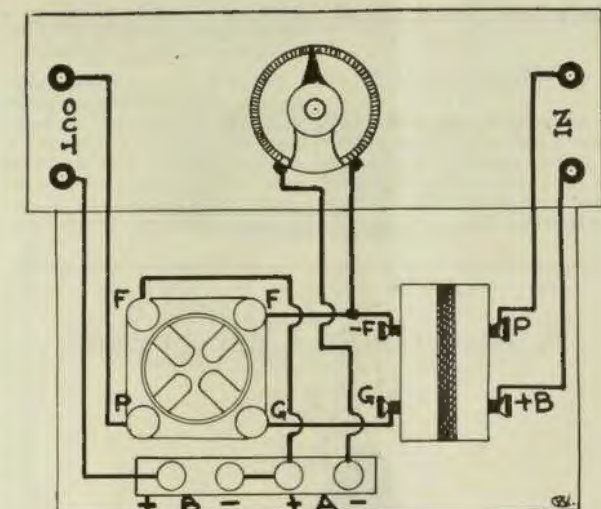
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indicated. It will be seen that the transformer is on the input side of the panel, with the secondary of this transformer adjacent to the valve socket. Follow out the layout carefully, and good results will accrue.

Now the wiring of this unit should take up only a few moments, and is clearly shown in the diagram. Wire up accordingly and check over to make certain that everything is quite all right. At this stage it may be well to point out a little feature concerning the connection of the A battery plus to the B battery minus. If this unit is to be attached to a crystal receiver this will be quite in order, but if to a valve receiver it is just as well to ascertain how the connections of the A to the B battery is made in the valve receiver. Should the A positive join the B negative in the receiver, the arrangement shown in this diagram is quite satisfactory, but, on the other hand, if the A negative is connected to the B negative in the receiver connect these two terminals accordingly in the amplifier. This, it is hoped, is quite clear.

To install the unit is also a very simple matter. All that is necessary is to insert the valve in the socket and connect up the batteries. The A battery going to the set should have two further leads to be taken to the A battery terminals of this amplifier. Another lead should be taken from the maximum B positive available on your B battery to the B battery terminal of the amplifier, the negative terminal of this amplifier being in this instance entirely forgotten about. A last connection is made by joining the phone terminals of the receiver to the input terminals of the amplifier. The phones or loud speaker as the case may be should now be connected to the terminals marked OUT in the amplifier, and the valves switched on by means of the rheostat.

In the case of a crystal receiver, connect the telephone terminals across to the terminals marked IN in the amplifier and link up a suitable A and B battery to their respective terminals. The A battery must always be governed by the particular valve in use. If the valve is a dull-emitter of the 3 to 4 volt type, then three dry cells in series are required for an A



The back of panel wiring diagram.

battery to heat or light up the filaments. On the other hand, if the valve is of a 6 volt type consuming, say, a quarter of an amp, or .25 of an amp as it is known, it is best to obtain an accumulator of the order of 6 volts if one is not already available. The B battery again may be connected to its respective terminals, and keep in mind always that between 45 and 90 volts is a suitable value for this B battery. The greater the voltage of the B battery up to certain limits the greater will be the volume resulting. Now when hooked up to either receiver with the phones connected to the terminals marked OUT, and the receiver tuned in, much greater volume is now available than hitherto has been the case. Gradually turn the rheostat up until the maximum signal strength is available.

In presupposing one or two queries we would emphasize that this amplifier unit does not in any way affect the tuning of the existing receiver, and the set is therefore not in any way more difficult to tune. It may happen that when this amplifier unit is linked up with a two valve receiver already employing a stage of audio frequency amplification, a high pitched whistle is heard throughout

all reception. To overcome this, simply reverse the primary leads of one of the transformers, preferably the second transformer, that is, the one included in this unit. The simplest way to do this is to reverse the leads from the telephone terminals of the set to the input terminals of this unit. To further explain this, if the top telephone terminal is taken to the top input terminal and the bottom to the bottom the whistling will be overcome by taking the top telephone terminal to the bottom input terminal and the bottom telephone terminal to the top telephone terminal, when the whistle will disappear entirely.

For those who are desirous of having a circuit diagram this is reproduced here, the input terminals being marked TO PHONES and the output terminals shown where the break occurs in the plate lead of the valve.

This is a very handy little unit, and its purposes are many, and will enable many people to enjoy loud speaker reception instead of phones. Excepting the accessories such as valves and batteries the total cost of all the material need not exceed 30/- in all, but this depends on the class of material used.

Some Points for the Crystal User

*A Talk Broadcasted from 3LO by
H. K. Love*

IN my previous talks I have dealt with subjects which have primarily been connected with valve receivers. I would not like those using crystal receivers to think they have been forgotten. There are many little

points which may be watched on a crystal receiver and if these are observed results may be much improved.

One of the most important things about the crystal itself is that it should be a good piece, it should always be clean, free from dust and grease. If a crystal is picked up in the fingers a light film of oil will often be deposited on it, and this will at once reduce its sensitivity. If it is neces-

sary to remove the crystal from its holder at any time, it should be lifted with a small pair of pliers or tweezers. If there is any doubt about the cleanness of the crystal, take it out and give it a good washing with a tooth brush in clean water, a little soap may be used, provided it is well rinsed off before the crystal is replaced. The crystal should not be held in the fingers during this operation.

Dust should be kept from the crystal by mounting it in a dust-proof container—these are supplied with most of the crystal detectors now on the market, and consist of a small piece of glass tube.

The adjustment of the cat whisker or contact point of a crystal detector should be very fine. Not sufficient care is being taken by many users of this point. Many of the old crystal detectors used by the amateurs during experiments before the war had some wonderful vernier arrangements for adjusting the pressure of the contact point on the crystal. A great deal of the sensitivity of the unit depends on this adjustment.

It must be remembered that the range of a crystal receiver in the days before the valve was very considerable, we do not seem to obtain results like the old times on crystal receivers. I have, night after night, sat in my shack and listened to spark signals from Adelaide, Perth, Port Moresby and New Zealand on a crystal receiver. One doesn't hear much of this kind of thing now.

If listeners will take the pains to make their crystal receiver a little more than "just a crystal set" there is no reason at all why very good medium distance reception should not be accomplished. There are cases on record where crystal listeners have been able to receive both 3LO and 2FC from somewhere in the centre of Victoria.

One of the chief troubles of the city crystal receiver is the problem of interference. It can safely be said that most of this is caused by the inability of the receiver to tune sharply, or, in other words, lack of selectivity.

(Continued on Page 55.)

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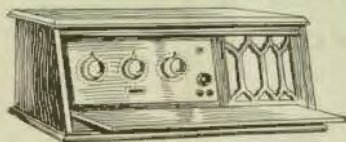
(Continued from Page 6.)

introduce atmosphere into studio transmission. Listeners will remember the clever radio serial drama produced Mr. Scott Alexander early last year, when this thrilling story held the attention of our listeners week by week until plot was revealed on the last evening. Although the questions put to listeners were most involved, and unusually difficult, there were 1500 people who sent in sensible answers, valuable prizes were given to the winners. During the enactment of this radio serial, which, by the way, was the first of its kind to be given in the world, all sorts of effects were introduced—many of them crude—and, and from this early beginning we have developed our effects department, which will be closely associated with all our plays in the future.

Rightly or wrongly, we think that listeners get tired of the monotony of ordinary studio programmes—8 p.m. Miss Smith (soprano); 8.8 Mr. Brown (baritone); 8.15 Mr. Smith (tenor), and so on, yet every station has to give this class of programme—it is their stock in trade. Without it one could not exist now that talks seem to be less popular. But can we not now and again break away and try something original? Anyhow, we think we are on the right track, and our next big night in this direction will be given when we will take our listeners in imagination, in a trip from Sydney to London, calling in at all the various ports, transmitting music and song from the different countries visited, giving opportunity for some excellent items. Then a few weeks later, the return trip will be given, going round by a different route. This should appeal very much to the imagination of listeners, the majority of whom have travelled over the routes to be described.

Coming back to the story of our Christmas play, an announcement was given at the close of our programme pointing out that we had covered very extensive ground, and asking listeners for their opinion of our efforts. We said further, that a number of inaccuracies appeared

(Continued on Page 47.)



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in our story, and asked listeners to give us their opinion where these mistakes occurred. To the first fifty letters received in this way we propose to send to each writer a souvenir in the shape of a reproduction of the various scenes of London life, published in the pictorial section of the "Evening News," which gave on Christmas Eve a number of the places to be visited.

This announcement became necessary, as opinion was divided on one particular subject, and perhaps your readers can help us to solve the problem. Half of our staff were certain that the various theatres and shows are not open in London on Christmas Eve, and the other half were just as certain they were. As our story was based on visits to various theatres, &c., it became quite a serious break if it was a fact that these places were not open. So we hit on the plan of covering ourselves by the announcement concerning any inconsistencies that may have crept in. To give our play it took thirty actual performers, three microphones, two amplifying gears, and hundreds of feet of wire, and our thanks are certainly due to the manager and staff of the Columbia Gramophone Company for the assistance afforded us. No ordinary broadcasting studio would have been sufficiently spacious to take all our party at the one time, as our operations extended into every corner of the studio, where the effects of conversation etc.—far and near—were obtained, and we are indeed grateful for the facilities afforded us at the excellently equipped studio at Homebush.

FOR SALE.—Browning-Drake four valve sets, complete with all equipment, in handsome silky oak floor cabinets. Demonstration by appointment.

WANTED.—All kinds secondhand Wireless Sets, Parts, Speakers, etc. Best prices given. JACK RAPKEN, 16 George Street West. MA 1198.

*It's In The Air**(Continued from Page 7.)*

of the wretched listeners, forced to hearken to all this. We have long gone beyond the point when everything over the air was wondrous, and even the sound of a scratching whisper, covered with static, drew a delighted squeal from mother and the girls. We want entertainment, and the announcer reading wires telling how they loved his voice in Portland, Oregon, isn't going to make us love him. One sufferer in the United States has mentioned an even worse thing they do over in the land of liberty. Before a song is sung, the announcer announces that it is dedicated to someone, often one of the listeners who has made the special request that it be sung. This is going too far.

I sincerely hope that this innovation won't reach Australia. It would be terrible to hear Mr. Smith announcing that Mr. Albert Agnor "will now play 'Sometime or Never,' a composition expressly composed by the composer to compose his nerves, and dedicated to Mrs. McSwiggin, of Woop-woop, who first gave the musician his inspiration." My friend in the United States foresees that if this thing is going to continue, we shall soon have it introduced into other walks of life. He says that the tram conductor will soon be intoning that he intends to stop the car at Pueblo Crescent for Mr. and Mrs. Brown. The stop after that is dedicated to Mr. Harold Kiwi, the polished journalist." Or he has the horrible fear that the theatre usher may cry as he threads his way among the pews—"Well, folks, I am finding seats, B.10 and 11 dedicated by kind permission of Messrs. J. C. Williamson to the well-known Mr. and Mrs. John Smith, of 'Emorio.'"

Personally, my chief aversion on the radio is to the lady who tells her fellow-woman what the well-dressed sisters of the sex are wearing this season. She adopts a familiar, hospitable style that assumes that the said sisters are actually in the room with her.

"That's right, ladies," she says, "come right in. I am just waiting for you. No, Mrs. Brown, don't sit there, come over here where the fire

is warmer. You sit over in the cold, Mrs. Smith. You're stout and won't feel it. Oh, my dears, talking about stout women, the latest dresses are all plus silhouette than ever," and so on. Yet there is a dreadful fascination about her quips and oddities that forbid me to tune her out and reach after loftier things like Rupert Hazell. Oh, well, it's a new year, and a grouch is out of place. Still, you know what I mean, don't you?

Xmas Greetings

CHRISTMAS greetings for 2FC were broadcast by Mr. Cochran, on Christmas Eve, as follows:—

"To most of us who are getting up in years, Christmas Eve brings back pleasant memories of the wonders of our childhood. We look back upon the days when, with awe and wonder, we hung our stockings in the most conspicuous place so that Santa Claus would not overlook us.

"To the dear little kiddies the visitation of Father Christmas—who never grows old like we poor mortals—still remains a wonderful mystery.

"Looking at the clock, I see that it is now within a minute or two of midnight, and my thoughts dwell on the millions of stockings throughout the civilized world which are, at this moment, loaded full with the good things that are—in a few hours' time—to create so much merriment to grown-ups and kiddies alike.

"It is wonderful to think that this little message which we are broadcasting as midnight approaches, will be heard not only in the southern Pacific, but will travel far overseas, to the other side of the world. Thus it will be, in wishing one and all a very happy and bright Christmas-tide, we shall include—not only those residing in sunny Australia, but in all parts of the civilised world to which the air waves will carry our message to-night.

"Before wishing you goodnight, I will ask you to listen to 'Big Ben' ushering in Christmas morning, with his mighty toll." And as the bell finished striking, "Again, may I wish you one and all a very very Happy Christmas from Station 2FC."

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All Readers' Queries Answered Here

In conjunction with Farmer's Broadcasting Service the Technical Editor of "Wireless Weekly" will answer all listeners' queries arising from the wavelength change. Answers will appear in these columns and will be broadcast from 2FC each Thursday night.

A. A. R. (Urala):—

Q: I have a five valve receiver which since the drop in Farmer's wavelength will not give daylight reception excepting on the headphones. When 2FC was on its long wavelength I had no difficulty in receiving them at loud speaker strength during daytime. Please tell me what coils I should use to receive this station at loud speaker strength during the day.

A: I am afraid that it is not a matter of coils in any way. It is well known that the short wave on which 2FC is operating as well as other short wave stations is not at all conducive to loud speaker results during the day. I am afraid I cannot make any suggestion to help you out in this matter.

W. T. (Ipswich, Q.):—

Q: I: As I am very anxious to learn the Morse code, I would be pleased if you could forward to me a crystal set circuit by which I would be able to get all the low wavelengths. I live 25 miles from Brisbane.

A: I presume you mean the amateur stations when you say low wavelengths. This being so, a crystal set would not serve any useful purpose, as the amateurs use invariably on a very low wavelength around about 60 metres, and employ what is known as C.W. A crystal will not detect C.W., therefore it becomes necessary to construct a short-wave in-voice receiver.

Q: I: I have a five-valve Neutrodyne receiving set, and would like to know if I should be able to tune in 1YA, while 2FC is working, also if it should be possible for me to tune in 7ZL, Hobart. As I said above I am 25 miles from Brisbane.

A: 2: By reducing your aerial to 70 feet overall greater selectivity will be the result which would mean that 1YA would be separated from 2FC. Of course, don't forget that the New Zealand station closes down at approximately half past eight, our time. Later on 7ZL will be on a much higher power and therefore be receivable, provided, of course, that your receiver will respond to the wavelength.

J. C. (Roselle):—

Q: I: I would like to ask a few questions, firstly: in the Extraordinary One Valve word Gerdan Spider formers wound with the same length of wire do instead of coil described? A: 1: Yes, they could be used, but will require too much alteration to describe through this column.

Q: 2: What voltage would you advise for B battery? A: 2: Between 22½ and 45 volts.

Q: 3: I would like to add a C battery to this circuit? A: 3: A C battery is only used in an amplifier, therefore with this circuit it is not suitable.

Q: 4: My aerial is 100 feet long with 15 feet lead-in, and 20 feet earth. Is this too much? A: 4: You would be well advised to chop 20 feet off it.

W. W. W. (Mount Colah):—

Q: I: I am not certain whether to put the 5 to 1 transformer in the first stage and the 8½ to 1 in the second stage. Will you please tell me which to do? A: 1: Always have the higher ratio transformer in the first stage, and the 3½ to 1 in the second stage, that is nearest to the phone.

J. W. W. (Hilton):—

Q: I: I would be glad to know through your columns if it would be possible to make a successful A battery on the same lines as the B battery described in "Wireless Weekly" of April list, 1925. I have six porous pots 8 x 3 inches, and also some positive elements from a 1.5 volt zinc-lead dry cell.

A: 1: A reasonably good and cheap A battery can be made from the porous pots you have on hand together with some Leclanche Zincs and some large zinc jam jars. Into each jar add some ammoniac and water and then insert the porous pot with the zinc alongside in the electrolyte. The zinc is the negative and the porous pot is the positive terminal. Each cell would yield approximately 1½ volts so that for your purpose for three D.V.3 valves these cells should be linked three each in series-parallel. If polarization takes place, spread half an inch of powdered sulphur on the surface of the electrolyte. But why not obtain Ampinon Carbons?

A. W. R. (Earlwood):—

Q: I: I have a one valve receiver in which I use two variable condensers sizes .001 and .0025. I intend building the two valve Rehnitz as described in "Wireless Weekly" dated 15/10/26, and would like to know whether I could use the above mentioned condensers in place of the two .0025 as stated? A: 1: Yes, use a .0025 for tuning the grid only, while the other require an increase of 25 turns. A .001 condenser would be satisfactory for the reaction.

F. T. (Peterborough):—

Q: I: Would you kindly let me know through "Wireless Weekly" how to charge the accumulator B battery described in "Wireless Weekly" November 19th, 1926, to 240 volt direct current?

A: 1: Simply connect the 60 watt lamp in series with the D.C. mains, and omit the resistor altogether.

H. H. C. (Coogee):—

Q: 1: My set is a three coil three valve—what would be the correct length of aerial overall to use for this circuit at Coogee, i.e., for local stations? A: 1: Do not exceed 70 feet overall, that is including your down lead.

Q: 2: Would it be possible to obtain Inter-State reception on this set? A: 2: I would not be too sanguine considering the location. Don't forget that summer conditions are not too good for long distance reception in the winter time.

W. V. C. (Newtown):—

Q: 1: I have a five valve Neutrodyne set which has cost me just over £50, and I find that I cannot receive any Inter-State stations within the New South Wales very satisfactorily. Run your receiver along to a reputable dealer, who will rectify this fault.

A: 1: I am rather sorry to hear of your disappointment. All I can say is that the Neutrodyne is not built correctly, for this receiver is a most wonderful one, and should receive Inter-State stations very satisfactorily. Run your receiver along to a reputable dealer, who will rectify this fault.

Resinier (Buderim Mtn, Q.):—

Q: 1: What wavelength would the Extraordinary One Valve cover? A: 1: This receiver covers the broadcasting wavelengths excepting that of 6WF.

Q: 2: What would be the best voltage for the B battery in this set? A: 2: This is determined by the particular valve you use, between 22½ and 45 volts will just suit.

Q: 3: What length aerial would be the best for this set? A: 3: In your district an aerial 100 feet long would be most satisfactory.

Q: 4: What rheostat would be suitable for 1V.199 valves? A: 4: A 50-ohm rheostat.

R. L. (Warwick, Q.):—

Q: 1: I am desirous of building the one central five valve receiver recently described in "Wireless Weekly" and would like to know where to obtain the U.S.L. condenser used? A: 1: Write Australia General Electric Co. Ltd., Box 2517, G.P.O., Sydney.

C. J. H. (Stanthorpe):—

Q: 1: Being unable to use a drill, would a baseboard and panel of thick boxwood serve instead of the usual bakelite? A: 1: Yes, but I am curious to know just how you will cope it.

K. G. D. (Coogee):—

Q: 1: I have a single valve three coil receiver, and live about a quarter of a mile from Broadmeads, and can get everything on the air, including 3LQ when 2BL is cut transmitting. Will the wave trap in "Wireless Weekly" a few weeks ago cut them out? A: 1: My advice is to try this out for yourself. I really couldn't say definitely.

A. M. (North Baddi):—

Q: 1: I would be very glad if you will let me know the qualifications required, fee and method of obtaining an experimental license? A: 1: Write to Chief Radio Inspector, P.M.G. Department, Castlereagh Street, Sydney.

W. L. B. (Micklehaig):—

Q: 1: We have a four valve set but find we cannot pick up any station well during daytime. Can you please explain why? Also sometimes the music and speech from 2FC in the evening will go right to practically a whisper in the loud speaker. What causes it and how can it be altered? A: 1: It must be understood that on the broadcast wavelength now used daylight reception is not nearly so obtainable as with the long wave of station 2FC. The reception in daylight is missed in most parts of the country, and I can't but believe to overcome the difficulty. The fading you speak of is another problem which cannot be overcome. I wish I could help you.

R. H. C. (Collarenebri):—

Q: 1: I am having some trouble trying to neutralize UX.201A valves in the neutrodyne. Can you give me some suggestions? A: 1: A very good scheme to assist in neutralizing the Neutrodyne employing these valves is to install a variable high resistance in the plate supply of the radio frequency valves. For further particulars of this see "Radio" 13/10/26.

H. P. (Nambour, Q.):—

Q: 1: I have made the Extraordinary One Valve receiver and can only get a whistle. I have not made the set in accordance with the instructions given, and am enclosing a sketch showing my alterations. Can you account for this? A: 1: Yes, very easily. You must clearly understand that before any receiver is published in "Wireless Weekly" considerable pains are taken to arrive at the best layout and wiring system, and if departed from, as you



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have done, it is only natural that you will have to go over all the ground experimental work to reach satisfaction. Why not follow my scheme entirely. It's good, you know.

J. A. C. (Hondal, Q.)—

Q. : I want to make a Bi-chromate of potash B battery of, say, 80 volts. Can you give me the necessary particulars?
A. : Personally, I would not advise this, as besides being a very "messy" battery you would be continually renewing zincs.

H. O. E. (Queensland)—

Q. 1: I have a five valve receiver and am using general purpose Bristol emitter valves of the Continental type. Is it advisable to replace these valves for special purpose tubes? I have a 6 volt accumulator.

A. 1: Perhaps it would be advisable from the point of view in saving the filament consumption if nothing else. There are many types of modernised general purpose valves which would prove advantageous. Write to one of the advertisers of "Wireless Weekly" who will be happy to assist you in your choice of valves.

Q. 2: What is the highest plate voltage I can use on the Continental valves without damaging them?

A. 2: This depends on the particular brand of valve you use. With the most brilliant emitter valve, when too much plate voltage is applied a faint bluish fluorescent glow is perceptible. Try stepping up until this glow is discernible then come down to the best working point.

Q. 3: I have a combination of water pipes driven into the ground for my earth. Will a counterpoise increase my signal strength?

A. 3: Try this out for yourself.

H. W. (Herts)—

Q. 1: I wish to get particulars of how to make a charger for charging my A battery?

A. 1: See "Radio" 30/10/25.

J. O. (Tanworth Falls)—

Q. 1: I wish to alter my vario coupler receiver into the Old Reliable. My vario coupler has seven tappings on the panel, which makes it difficult for me to instal in the new primary winding.

A. 1: Why not unwind the vario coupler altogether, and re-wind it as shown for the Old Reliable? There must be some method of eliminating the tappings. Dispense with them altogether, and cut the leads.

F. N. T. (Canowindra)—

Q. 1: I feel my duty to write you and thank you for the circuits and descriptions of the "Extraordinary One Valve Receiver" described in your valued paper a few weeks ago. I built it and within the first week I got 40G, 5L0, 2B1, 2PC, 2KY, 2GB, and 5CL. On any night I can go to the set and pick up 2BL, 2FC, 5L0, and 40G, with such volume that I have to cut it down. I had many friends who laughed at the idea of a one valve set doing such things, but now they have heard their words of praise are unlimited. I now intend building a loud speaker set without increasing too much expense. I am interested in the Two-valve Regenerative Interflex. Do you think it would give loud speaker strength on the inter-State stations? I think we are situated about 100 air miles west of Sydney.

A. 1: The Regenerative Interflex properly built is certainly a very wonderful set, and will give good loud speaker results from inter-State stations.

H. B. S. (Killara)—

X (Coolah)—

Q. 1: I am desirous of building a four or a five valve receiver suitable for inter-State and New Zealand reception. Which set would you advise me to build—the Bayre Sub-panel four or the One Control five valve?

A. 1: Obviously, I cannot draw comparisons between receivers. The results with each receiver are published in the paper, and it is the privilege of the reader to choose that which suits him best.

Q. 2: Would I get better daylight reception if I used a 6 volt A battery and stronger

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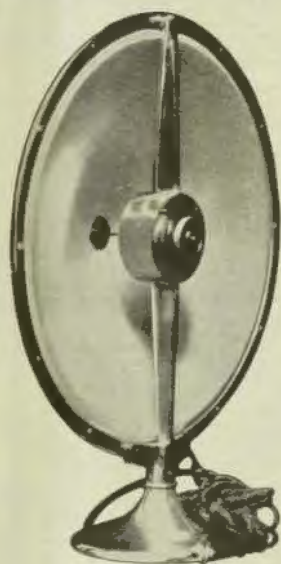
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valves and B batteries to suit, in place of the 4 volt and lower ampereage valves?

A. J.: In reading over these columns you will notice over and over again how I stressed that daylight reception is not nearly so good as night-time reception. Perhaps your present valves may be worn out; in that case the substitution suggested would be perhaps advisable. I would not recommend you to mix 4 and 6 volt valves together in the one set.

Q. 3: What is your opinion of the cone speaker? Do you think it would be satisfactory?

A. 3: I certainly do. Forward Ed. in stamps, and a copy of "Wireless Weekly" with instructions for making a cone speaker will be mailed to you.

T. B. (Thalton, Q.):—

Q. 1: Would a .001 Polar condenser be suitable for the wavetrap in "Wireless Weekly" 1/10/26?

A. 1: Yes, perfectly suitable. You need not alter the terms in any way. I cannot advise you on the second matter, but can sympathize with you in the matter of howling valves. It seems incredible that in your situation you should suffer from this. It appears that there is still quite a number of radioists who have not learned the Eleventh Commandment—"Thou Shalt Not Oscillate!" but let us both hope that as time goes on this matter will be self remedied. Fading, unfortunately, is something no one can explain away at the present time. Many theories are advanced, but all to no purpose.

BRIEF REPLIES.

G. R. T. (Stockton): Many thanks for the photograph of your receiver, which is unfortunately too small a photograph to be published. Let me congratulate you on the appearance. It is a credit to you.

A. R. H. (Newtown): During the last two or three months there have been several four valve receivers published, one of which no doubt should suit your purpose. Look over your back copies.

L. P. (Keenington): You are being entered for in this issue.

T. M. (Newtown): Something certainly must be wrong with the receiver. Run it down to Harringtons Ltd., 385 George St., Sydney, who have the original set.

V. P. (Gordon): I cannot send you special back of patent views of receivers as obviously it takes too much time, and if I did so in one instance I would have to continue, and really there is only 24 hours in a day. I am sorry. Why not have a yarn with a more experienced radio friend?

T. B. (Dee Why): See reply to R. H. C. (Collarsober).

Rinarrs (Massey): The amplifier in this issue is just what you want.

W. R. (Ryde): Can you give me some comparisons of audibility meter tests with and without your new attachment to the aerial? I would be glad to know.

J. L. (Oxley): Insert a .002 fixed condenser across the secondary terminal of your last transformer, or if desired install a MacLurean Tone Purifier.

A. H. C. (Undercliffe): Your requirements will be very shortly catered for in "Wireless Weekly." The crystal is the cause of your trouble in your reflex set.

H. P. H. (Sutherland): Modernize your receiver. Build the one valve set in this week's or last week's "Wireless Weekly."

H. A. P. (Glebe Point): Your trouble lies in the coupling of the plate coil. Play about with this until you master it. Your aerial should not exceed 70 feet overall. Heartily reciprocate your greetings.

W. C. (Marrickville): My advice to you is to have a yarn with a radio friend. Call or someone you know knows something.

E. S. (Brisbane): The crystal receiver you describe is not suitable for Erynia. Build the Hamill receiver of "Wireless Weekly" 12/11/26.

J. M. S. (Cresmore): Space the primary a little further away from the secondary coil.

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Ask your dealer about

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The beginning and the end in
POWER

Points for the Crystal User

(Continued from Page 44.)

It is quite impossible for a single coil receiver, which uses the same inductance to tune the aerial and the closed circuit, to cut out interference. All crystal sets should be altered to loose coupled circuits, in which the aerial is tuned by a coil and condenser and the closed circuit by a coil and condenser which is inductively coupled to the aerial coil.

Then by close tuning and a variation of the coupling the unit will become reasonably sharp. Sharp tuning means more volume, therefore there should be no objection at all from the operator's point of view.

A good deal of experimental work may be necessary in order to get the best results with this lay out, but every crystal user should make the change, as it will pay in the long run.

"Ere To-morrow Dawns," sung by Mr. Charles Smyth, for 2BL recently, promises to achieve much popularity. The composer is Mr. Edmond Samuels the Sydney chemist.



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