

WIRELESS WEEKLY

Vol. 9. No. 9.

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Friday, Dec. 24, 1926.

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WIRELESS WEEKLY

VOL. 9. No. 9.

FRIDAY, DECEMBER 24, 1926.

Alterations in "Wireless Weekly"



LOOK for "WIRELESS WEEKLY'S" new blue cover on January 24. A striking improvement in appearance and size will mark this issue.

Increased circulation and the resulting demand for advertising space has required the adoption of quicker and more modern methods of production. To cope with these advances the paper will change over in a few weeks to a modern art rotary press, capable of turning out copies at the rate of hundreds a minute.

The advantages of this move will be apparent to readers. A large percentage of topical matter will appear and programmes will contain fuller details. An additional eight pages will make this possible.

There comes a time in the life of every magazine when such a move becomes necessary. It indicates that the period of experiment is over and that general acceptance by the public for which it caters has justified its existence. We did not expect such a change to take place so soon in the history

of the reorganised "Wireless Weekly," but a circulation that has doubled in six months has forced expansion.

Our policy does not change with these alterations, however. We will continue to be primarily in the interests of the development of wireless, and more particularly wireless broadcasting, with which so many thousands of the general public are so intimately associated. Our efforts will be devoted to assisting wherever possible in the improvement of wireless, and helping those who are interested in getting the best results from the many fine broadcasting services which are now available to them.

By following out this policy in the past we believe that we have laid a foundation upon which to build a successful wireless magazine.

To the traders who have assisted in making the paper a success during the last six months we express our gratitude, and trust that with the rapid development of wireless in Australia they in turn may prosper. To the many thousands of our readers we extend the season's greetings



Between You and Me and the Microphone

Conducted by
R. E. CORDER



BY ARRANGEMENT between the American Radio Corporation and the Japanese Government, reductions are to take place in the cost of wireless messages across the Pacific.

THE PROGRAMME of almost every important wireless station in Europe contains an item in Esperanto. There are several wireless publications in the language, and a technical dictionary of wireless in Norwegian, English, and Esperanto, has been published.

APPLICATION FORMS, from entrants in the 3LO Girl competition, continue to arrive at 3LO studio, where the staff are keeping them neatly filed until the time comes when they will be placed in the hands of the three adjudicators.

THEY ARE pouring in from every source—from the business girl who can make her own dresses—the home-loving girl, who can "play the piano just enough to amuse herself"—and the open-air enthusiast who "simply adores sport of all kinds."

EVERY NOW AND THEN messages reach the broadcasting stations showing the wide sphere of influence of the religious services broadcast. Last week the name of a popular preacher was mentioned to a clerk in the money order office at Perth and the latter remarked: "Oh, yes, I have often listened in to Rev. Mr. Hammond at 2BL."

2GB has arranged to transmit a special programme on the evening of January 1 for listeners in America. The time of the programme will be from 5 to 8 p.m. which will be heard in New York—assuming nothing goes wrong—on New Year's Eve, that is to say "the day before it is sent." The idea prompted by this transmission is to communicate with Dr. Annie Besant, leader of the Theosophical movement, now in America with Krishnamurti, who will shortly appear in the role of a world prophet.

A SCHEME for the registration of wireless traders and repairers has been launched by the Radio Society of Great Britain and the Wireless League. The constitution is similar to that of the Automobile Association, and every registered trader exhibits a sign.

THE STUDIO at 3LO has become one of the recognised pleasure resorts of Melbourne, and the management, in recognition of this flattering fact, is not content merely to provide entertainment for its patrons while a transmission is being made from the studio, but has installed a super Heterodyne for use when transmissions are for from outside.

SO NUMEROUS have become visitors to the studio that a uniformed commissionaire or usher has been appointed to receive them at the outer door and to answer enquiries. This obliging official in brown has a very busy time during the evening sessions.

THE PERUVIAN radio market has been opened to its full extent to American exporters through the recent liquidation of the Peruvian Broadcasting Company. This company previously held the rights to all broadcasting and merchandising of radio apparatus, under a concession which required that a certain amount of apparatus must be purchased from British firms.

I OFTEN WONDER why the occasional anonymous letter that is furtively mailed to the Editor is invariably scurrilous and why "the truth is not in them." And then I conclude that the bashful author hides his identity because he also knows that the truth is not in them. And then the anonymous letter is filed in the scrap basket.

LAST WEEK a woman wrote to 2BL "We are miles from the nearest doctor," and asking what she could do for her boy aged six who was having trouble with his eyes. The mother described the child's symptoms and the broadcasting station obtained expert advice which was duly sent for the information of the mother. In case the treatment might interest other listeners, Mrs. Jordan, of 2BL, also explained over the air what should be done.

THE RADIO MAN'S LOVE SONG.

Within my heart, throughout the
past,

Science predominated,
And through magnetic fields it
passed

Completely insulated.
Those ladies, charged and dan-
gerous,

That struggle to entwine me,
Passed near me, registering +,
But I was always —

And when I came within your
field,

'Twas surely providential,
For suddenly, I felt, revealed,
The force of your potential!

Your power is ruthlessly applied,
Ever I thrill and quiver
Move positively electrified—
But you are negative!

Ever you flee away from me,
As if my love confounded you,

Where is your conductivity?
Has some disaster grounded
you?

The forces between us, you're
waver—
You'll pardon my insistence—
Varies inversely as the square
of intervening distance.

Who has short-circuited our
arcs?

Let's banish all deterrents
And turn our intermittent sparks
To alternating currents!

My voltage is tremendous; oh,
I would your heart were
warmer—

I would I were a dynamo,
And you were my transformer!

Australia's Biggest Amusement Bureau

By W. T. CONDOR

(Director General of 3LO)

SINCE Victoria has as many licensed listeners as there are in all the six other States combined, and since 3LO is Victoria's chief station, I suppose we may claim that 3LO is the biggest single amusement provider in Australia.

To direct such an undertaking is no sinecure, believe me. It is the fashion to boast of growth. We claim to have the biggest. This and the greatest That (after America, of course), but to me the tremendous growth of 3LO represents a big responsibility, as well as a legitimate source of pride.

When it is remembered that a big broadcasting station, which reaches, at a minimum, 300,000 listeners in this one State alone is looked upon by many as the arbiter in music, in learning, in general information, in pronunciation; when, further, it is realised that mothers actually bring up their children by wireless, and scores of letters reach us asking our announcers to talk to Tommy or Nellie on the wireless, telling them that no good little boys or girls would ever do whatever Tommy or Nellie are doing, then I think you will agree that the old woman who lived in a shoe had very few worries in comparison to those of a director of a big station.

When my grey hairs are at last

brought down in sorrow to the grave, and my funeral service is being broadcast by 3LO as a last melancholy tribute of respect, I hope you people will remember that I died in the cause of public amusement, "butchered to make a listener's holiday."

The first thing a director must realise is that he can't please everybody. His first grey hair appears when he makes his first attempt to try. A programme must be drawn up in the certain knowledge that however good it is, someone is going to kick at it. The ideal is to put into it something that will please every class in the community. How many classes are there? It depends on the angle of view. For politicians, there are only two—the fors and the against. For social leaders, there are two, the upper and the lower. For entertainment directors, there are at least half a dozen—the sports, the women, the men, the good, the very serious, and the very flippant. You can see that no programme could possibly please all these. The talks that give pleasure to the very serious bore the very flippant to death. The dancing and the jazz that get the last-named to flipping their fingers and wrigg-



ling their toes make the good squirm and ask what's the world coming to. The sports would like all the racing results of the Commonwealth, followed by speculations on the Spring Meeting and reports on the conditions of all the candidates. We get over part of the difficulty by sticking in something for them all.

The programme is not the only cross a director has to bear. Every second person in the community thinks he or she has a message to the world. Politicians all want to make speeches when an election is near. In ten thousand homes someone snays every night to the daughter of the house: "I'm sure you could sing better than that. Tune her out, for goodness sake." I get visits from a fair proportion of these ambitious people. Short-story writers want to read their effusions, proud mothers want to let their children give their screaming impersonation of Ella Shields or Harry Lauder, learned men offer to

give an hour's lecture on abstruse subjects no one but themselves ever heard of.

Voice trials of really decent singers have to be arranged for. Concerts from country centres must be noted, so that nothing that might give pleasure or novelty to listeners may be omitted. Correspondence must be answered. This seems easy until it is realised that about 500 letters are dropped at our door every day. Many can be answered by postcards; many more by wireless, in short sentences, but the others necessitate more elaborate replies, for these correspondents represent our good-will. Not only that, but the letters we receive often contain useful information by which we profit. Our aim is to let none go unanswered.

No studio could last long unless it kept itself up-to-date. Radio information from every part of the world must be sought and assimilated. Where possible, our station puts into effect any novelty likely to please and interest our people. Similarly any suggestion from a subscriber receives earnest and sympathetic attention for it may contain the germ of an excellent idea.

"Stunting" on the air has been condemned by some as unnecessary, because the stunts sometimes fail. Ours have shown a large percentage of success, but even from the failures we have plucked a certain amount of success, for they have given us knowledge that advances wireless. Who can predict what will be "on the air" in a year's time? Out of a most egregious failure to-day there may issue next year's spectacular success.

We have broadcast from the air, from underneath the sea, from the tops of high towers, where interesting building work was in progress, from city streets, where the hum of a mighty city was sent through the microphone to let the far country dweller get a few moment's thrill of an unaccustomed kind.

Great national events, such as the welcome of a Governor-General, the policy speeches of the leaders of the people, the progress reports of a general election, the arrival of Cab-

ham—it is impossible to weigh the full value of these things. To do so we must put ourselves in the position of the actual out-back dweller.

It is an incontrovertible fact that wireless is playing a part in making the lot of the man on the land more contented. We are helping to stop the drift to the cities, with its unemployment. Thus broadcasting has a social effect almost equivalent to that of a mission.

That brings me to another side of our work. The broadcasting of church services has proved much more popular than most people would have believed possible. In a plebiscite conducted by one of the newspapers of Melbourne, church services easily headed the list of popular broadcast items. The city's finest preachers, its finest singers and best organists have become familiar to thousands who would either have no chance, or no inclination to hear them. The result has been amazing.

3LO has been criticised by irresponsible critics on all sorts of grounds. Its programmes, its management, its penuriousness have all been challenged. The critics have said that its programmes are the worst in Australia, that its management is leading it to ruin, and so on. Fortunately for us, the figures that are available do not support the critics. Our letters from every part of Australasia show that 3LO is the favorite station for far-away places. Programmes that are so bad would hardly have raised the number of subscribers from about 25,000 to 95,000 in little over a year, and as the programmes are so considerable a portion of the management, which necessarily includes the machinery for presenting them, I hope I may be pardoned for thinking that all is well with 3LO, Melbourne. Not that satisfaction with present results is going to keep us in a rut. We are always reaching out. If we had a motto, I think it would be: "Everything on the air but hot air."



Broadcasting city notes from the busiest intersection in Australia. The microphone is facing Flinders Street Station. In the circle: Broadcasting from the bed of the Yarra. Major Condor is seen on the left. Mr. T. W. Bearup, studio manager, in the white coat.

Radio---The Blind Man's Best Friend

Radio has made the blind man independent; it has brought him in touch with the world. In this article some of the benefits he has derived from broadcasting are discussed.

THEY look at things differently at the Blind Institute.

Radio means something more to them than just a casual amusement. It is one of the few great developments of this century bringing the sightless on an equal footing with the seeing. Sight is no advantage to the listener-in.

How can one follow closely the trend of a scientific lecture or be in spirit with Captain Hurley, in the white wastes of the Antarctic, when one's eyes are engaged on the china dogs on the mantelpiece. How much more prolific is the imagination in darkness—particularly when it is being prompted by virile suggestions from out of the ether?

The new technique which has led playwrights, lecturers, musicians, singers, and leaders in all walks of life to study the delivery of sound, minus sight, has been an inestimable boon to the blind. The blind man has always been at a disadvantage when following a lecture, a play or an address of any kind, for invariably the speaker illustrates his points with gestures, diagrams, or even pictures, leaving him to follow as best he can. Now, however, this is changed, for the blind man with a radio set has all these things within reach in the form most easily understood by him.

He has his news read to him. He hears the country's foremost men and women without stirring from his home. He hears the beat and the latest music. For the first time he can follow a horse race, a boxing match, a tennis tournament or a travel talk without troubling someone to act as describer.

Radio has made the blind man independent. It has brought him in touch with the world, and no wonder that there is a great demand for books on wireless at the Braille libraries. No wonder that every new development in the radio world



Blind musicians are finding that radio offers great opportunities. Knowing best how music appeals when the artist is unseen they have an advantage over those possessed of all their faculties. Above is Mr. Gordon Luvers, the blind musician heard from 2FC on December 8. He has been instrumental in bringing Miss Joyce Frew, a talented blind girl musician, holding several music degrees, before the listening public. Miss Frew is seen on our cover this week. Mr. Luvers is now teaching Braille music to David Mansfield, the partially blind "street singer," discovered by 2FC.

is followed keenly by the blind man long before it is known to the general public. No wonder some of the finest set builders we possess are blind men still under training.

Just two years ago they have had a set at the Blind Institute and its value in the education of the blind children may be gauged from the statement by the president of the Institute (Mr. H. Earlis).

"Radio is the most important scientific development, so far as the blind are concerned, which has been made

since the foundation of the Institute here. It is to play a tremendous part in the lives of the blind children now being educated here. The lectures are a definite part of their education.

"They are tremendously keen on the Bedtime story sessions."

At the Victorian Institute for the blind, radio is taking a definite part in the education of the blind children. The rich colorful talks on birds by Dr. Leach and the science talks by Dr. Loftus Hills, are included in the curriculum. In the large factory at the rear of the Institute which employs only the blind, headphones are laid on to the benches and workrooms.

In broadcasting on behalf of the Victorian Institute for the Blind an appeal for wireless sets for the blind who live in various parts of Victoria, BLO has seconded a motion that should win unanimous and enthusiastic support. Sympathy with those who sit in darkness can hardly be better shown than by providing them with facilities for enjoying that wonderful new avenue of communication with our fellows that has been opened up by wireless. There must be many listeners who in the course of building or improving their sets have accumulated a heap of spare parts that would be better employed in helping to build a receiver for one who has none, and it would be a real help to send along such parts at once either to BLO, Melbourne, or to the Blind Institute. There may also be some listeners who have the ability and the time to spare to put such parts together, and it would be a gracious act to spend some of the long summer holiday evenings now at hand in putting together just one set at least for some blind fellow-listener who would for ever gratefully appreciate such an act of kindness. BLO, Melbourne, would be glad to direct such offers of help to the official quarter.

Coming Features in the Broadcasting Programmes

SANTA CLAUS will make a round of visits this year by wireless. Every home in New South Wales which tunes in the radio set to 2BL at 6.45 on Christmas Day will hear the genial old gentleman. He will talk to the children as they examine the contents of their stockings and will tell them all about the tremendous distances he has travelled during the night.

THE CHRISTMAS EVE programme from 2FC includes carols from St. Andrew's Cathedral, and the Christmas Eve in London sketch, which has been specially written. The whole studio resources will be called on to put this story into effect which promises to be most interesting. Farmer's children's pantomime will be broadcast during the final performance.

ON CHRISTMAS MORNING, the bells of St. Mary's will be heard at 10.45 a.m., prior to crossing over to St. Patrick's, Church Hill, when DuBois' beautiful mass will be sung by the choir with orchestral accompaniment. On Christmas afternoon a special programme will be taken from the Petersham Congregational Church. Rev. Doran is preparing a talk on how Christmas is spent in other countries.

DURING THE CHILDREN'S session at 2BL on Christmas Eve, Father Christmas will entertain, and the boys' choir will render carols. A special programme of Christmas carols will be heard from the studio between 11 o'clock and midnight, to be followed until 2 a.m. by dance music and reveals from the Ambassadors.

THE BEST KNOWN 2FC artists will broadcast a studio reunion night on the last night of the old year of 1926.

Recollections of a similar night last year when over 70 of the best artists were heard in the one night's programme and "Auld Lang Syne" was sung at midnight, are still fresh. Greetings were sent throughout the Pacific, and the station closed down, tired but happy.

THE CHRISTMAS NIGHT programme from 2FC will be broadcast from the Lyceum Hall. The artists will include the Metropolitan Band, conducted by Mr. John Palmer; Mr. Alfred Cunningham, English baritone; Mr. Harry Thomas, the well-known entertainer and elocutionist; Mr. Paul Vinogradoff (Russian pianist), and Madame Elsa Stralia. Mr. Ernest Archer will also sing. The concert is for charity, and a collection will be taken for a night refuge to be built by the Central Methodist Mission.

THE EVERGREEN Christmas carol by Charles Dickens, slightly modified into a dialogue form that makes it extraordinarily suitable for broadcasting, was produced with great success by 3LO last Xmas., and will be welcomed with unabated appreciation by listeners again this year. The cast is much the same as last year's—Scrooge and Marley's Ghost being taken by Maurice Dudley and Alfred Andrew, two popular announcers; Bob Cratchitt by E. J. Lewis (programme director); Mrs. Cratchitt and Scrooge's sweetheart being doubled by Beatrice Terman (Mary Gumleaf); Mr. Middlemark by H. J. Book (Billy Bunny); Fred Mayland and Mr. Worthington by Allan Bell, and the minor parts of Bellinda, Fanny, Martha, Bella, the Boy Scrooge and Peter by the Misses Sophie Rockman, Jean Kelly, Bessie Gausson, Vera Andrews, and Masters Lionel Henry and Eric Berry. Tiny Tim will be taken, as with much success last year, by E. Ashton. The carol effects will again be rendered by Madame Ashton's pupils.

THE BOYS' choir which has been in training for the past three months for 2BL, is at last on the air. The lads gave an excellent account of

themselves, much to the satisfaction of Mrs. McIntosh, the lady who trained them. On this account they have been included as a feature of the station's Christmas broadcast programme.



Mr. George Bell, the well known artist, who will act as one of the judges of the 3LO Girl competition

ACCORDING TO the qualifications of the majority of entrants for the "3LO Girl" competition, no young man need sigh disconsolately and think his ideal girl, the one who can be useful as well as ornamental, is but a fantastic creature of his brain. She actually exists, in hundreds,

and the three adjudicators will have an extremely difficult task to select the one.

MR. C. C. FAULKNER, director of the Radio Bureau, and organiser of the 1927 Radio Exhibition, has secured the co-operation of 2FC and 2BL. The former station has been allotted the platform for the opening day on Wednesday, February 23. It will provide a programme in the afternoon and evening. On Saturday, February 26, and on March 2 and 3 the programmes are to be handed over to the care of the various "uncles" associated with 2FC.

THE BAND Association of N.S.W. has arranged with 2FC for the exclusive broadcasting of the 1927 band carnival. This begins on Saturday, January 22, with "C" grade contest, and on Sunday, January 23, the quick step display will be given in the afternoon. On Monday, January 24, the "B" grade bands are playing, and Tuesday and Wednesday, 25th and 26th, are reserved for the "A" grade bands.

"I AM an invalid, and I am unable to estimate what the Cheerio man's and the Hello man's talks have meant to me, and how many weary hours they have helped to brighten," writes Miss A. M. Jones to 2FC.



Mr. Charles H. Sims, manager of Kodak Ltd., Hobart, who has just completed a series of talks on photography at 2BL.



The diver was seen floating at the surface, his suit bloated out, arms outstretched apparently helpless.

ANNOUNCER C. V. Woodland, of 4QG, entertained listeners-in with a description of Davy Jones' Locker during a walk along the ocean bed at Moreton Bay one night recently. He was attired in the conventional dress of the diver and had a microphone strapped to his throat. The stunt was one of the most successful ever broadcast by 4QG.

The Pile Light, which is some two and a half hours' run by steamer from Brisbane, was chosen as the spot for the diving operations, the water there being about 40 feet deep and very clear. In order to enable a large number of listeners to hear the transmission, night-time was chosen and a submarine light hung from the side of a vessel was used to light up the ocean bed.

Early in the morning the Government steamer *Champion* left Brisbane taking with her a party from the Harbours and Rivers Department and also a party from 4QG.

The weather was in glorious mood, and the party entered the bay to find a smooth sea, under a cloudless sky. A gentle south-easterly wind was already tempering the sun's heat, and, though this made the sea a little rough during the afternoon, the

Down to Davy Jones' Locker with 4QG

Broadcasting from the bottom of the sea is the latest thrill for Queensland listeners. The Queensland Radio Service recently completed this novel transmission.

divers essaying to clamber over the ship's side were the only persons to feel the effect of the waves. On the way down, diving was, of course, the main topic, and it was a natural sequence that shark yarns—some short, some tall—should be told freely. Diver Stevens, who is characteristic of his job, has a keen sense of humor, and made merry at the expense of the band of radio enthusiasts who were all, at the outset, anxious to "go down," but whose enthusiasm per-

ceptibly waned as the fish-yarns proceeded.

As the *Champion* entered the bay, a large fin was sighted, idling at the top of the water near the ship. Some said it was a porpoise, but most agreed it was a shark. That settled some views on the question of getting into the diving suit, and when, shortly after the steamer had moored off the Pile Light, one of the lighthouse men was seen to haul a young shark up on a line, "Uncle Ben" and "Mac" (who had been longing for the experience of going down) frankly said they would leave it till another time. 4QG's director and announcer were inclined to postpone their efforts, too, but Diver Stevens, becoming serious now, assured them that there was no danger, "though" (with a twinkle in his eye), "the bay is full of 'Joe Narks' just now, and they have a big net one here." He had never known a shark to attack a diver, however; apparently the diver's outfit and the air bubbles emitted from his helmet

(Continued on Page 39.)



Announcer Woodland descending to make his transmission. Right: The Government steamer, *Champion*, from which the descent was made.

Sydney Stations Successful on Long Distance

The advantage of short wave broadcasting for 2FC has now been proved beyond doubt. Below are extracts from recent letters received at that station.

IF any further demonstration is required to prove the reception of 2FC over long distances, the following letter from the Department of the Naval Service, Radiotelegraph Branch, Digby Island, Prince Rupert, B.C., Canada, contains that evidence. The writer, Chief Operator H. D. Tee, says:

"Your station has been freaking in with regularity during the past month, signals being received here after midnight so strong in some instances that commercial spark stations have been drowned out. Last night your station was exceptionally good with a broadcast from Simons at the Lyric Winter Garden Theatre. This is a Canadian Government Station, using a five-tube Browning-Drake receiver; your signals are so good that it is not necessary to tune down to your wavelength, the signals freaking well on to the 700 band. I have been successful in picking you up on an eight-tube concert Hetrodyne receiver also with very good results. With best wishes from V.A.J."

Still further evidence is contained in a letter from Teesue Kusumote, Tokio, Japan. He says: "I have been having nice music last night from 2FC, and I would like to know if you could send me pictures of your station."

There were fears on the part of some that the change in wavelength would mean difficulty in station 2FC being picked up at a distance, but reports show that reception is better than ever. Telegrams have been received from Charleville and Augathella (Central Queensland), Condobolin, Tamworth, Piallamore, Moruya, and Nynnan, all complimenting 2FC on its transmission.

Nor are the other States behind. A listener at Beverley, W.A., tele-

graphed: "You came in well on Saturday night. Your station is now heard 30 per cent. better in West Australia." From the Rectory, Westbury, Tasmania, came a letter informing 2FC that for the first time the station has been added to the other Interstate stations picked up. A Bachelor of Science at Adelaide reported that the volume of 2FC now surpasses that of Melbourne. A radio man at Ballarat wired: "It was a positive delight to listen to you; your station is clearer than any other station."

The value of radio in schools (especially country schools) is shown by a letter received this week by 2FC, Sydney from the Thornburgh, Charters Towers, North Queensland.

Candy from U.S. for 2BL Singer

THIS morning at 3.16 a.m. Pacific time (October 19) writes a man from San Diego to the Sydney broadcasting station 2BL. "I heard a soprano singing, 'By the Waters of Minnetonka,' and the volume from the speaker was enough to waken my wife. Please compliment the soprano on her delightful voice, and tell her that I wish there were more with voices like hers on our shore. If she happens to be near the studio about 3 a.m. Pacific time on November 16 I would appreciate it greatly if she would repeat 'The Waters of Minnetonka' for my benefit and a box of candy will be the reward. The name of the singer will have to be furnished to me as it was lost in the shuffle." The writer is William A. Otto, of San Diego, and it was Miss Gladys Verona who sang. Unluckily, Mr. Otto's letter came too late for the golden voice soprano (as he called the lady) to sing on November 16, but she will be singing again from 2BL on Sunday, December 12, and will sing the "Minnetonka" again.

A man writes from Victoria, British Columbia, saying he heard the

The letter reads: "We wish to advise you that of late we have been having some very fine results on our set from your studio. We think that you will be pleased to hear same. Our set is a four-valve, built by ourselves, and taking this into consideration we think that we have done well to receive you. The music comes through very distinctly and loudly since you have changed your wavelength. The loudest we have heard was last night when we gave a concert to the whole school. Naturally, the boys were delighted and most of them have expressed the desire to come over some other night and listen-in. Hoping that we have some other performances as we did from Prince Alfred Hospital last night, we will now close."

song "Stanley from Manly," and another Scottish song. "Those two songs were good; I am Scotch myself," he writes. "You don't often get Scottish songs on this side, so you can imagine I was tickled pink. As for the rest of the programme, it was fine." The writer enclosed ten cents for an "Ekko stamp" acknowledgment, and signs himself "Yours to tune in on you again often."

Among correspondents who wrote to the Theosophical Station 2GB, this week, was one W. H. Jeffris, who sends items from that station's programme on a recent morning, and says that he will forward a sworn affidavit on his report for the asking.

It is of interest to note that the Australian broadcasting stations have an increasing number of listeners on the far side of the Pacific, and many more letters are being received at this time of the year (corresponding to the early American winter) than has been the case in previous years. This indicates a steady improvement in transmission generally on the part of the Australian stations.

Avoid Becoming a Radio Road Hog

Before you accuse your neighbour of cluttering up the ether with squeals, be sure that you are not yourself an unconscious offender. Don't blame the regenerative receiver for all the "howling" that mars radio reception; there are other types of trouble makers too.

For instance—

EVEN the most enthusiastic will admit that broadcast listeners do not find reception always to their liking. What programme director could arrange a number of items free from some objection from isolated types of listeners? The volume from the loud speakers may not be sufficient, or the batteries may run down at a critical time. Such drawbacks are not to be wondered at. There is no form of entertainment that always satisfies and every form of public utility justifies expressions of dissatisfaction from time to time. But there is something about broadcasting that causes people to put up with inconveniences without much complaint. Perhaps it is the novelty of the form of service that generates in the listener an enthusiasm that is not easily quenched. Or it may be the newness of it that prompts listeners to have forbearance.

The listener certainly finds difficulty in trying to get an uninterruptedly good programme. A good item—a Percy Grainger solo from 3LO, for instance—may be distorted by weird noises picked up over 1,500 miles airline, with other kinds of sounds that are emitted from the loud speaker at unexpected times and without any warning, are politely called interference by radio men. The noises certainly do interfere with the listeners' attempts to pick up the item clearly—and they interfere with the best efforts of these engineers to deliver the microphone goods intact and undistorted.

The particular form of interference recognised by howls and shrieks is caused by oscillating valve receivers. Not every valve receiver, fortunately, will produce in the next-door neighbour's receiver these noises; but there are far too many receivers that will

—and do cause trouble. Such receivers when badly handled, when allowed to oscillate, become transmitters, and in addition to picking up the electro-magnetic waves, also send out some energy capable of acting on near-by receivers in such a way as to produce the strange and annoying notes.

The ironic part is that the person who allows his receiver to oscillate, and so send out distorting signals, also lets his own receiver distort the music picked up. And he promptly blames the other fellow! It is a great pity that the real significance of the thing is not more widely understood; that to allow our receivers to remain in a state of oscillation not only causes annoyance to our fellow-listeners at other sets, but also spoils our own entertainment. When a valve is allowed to oscillate, the receiver cannot reproduce faithfully the programme of music it picks up.

The use of reaction in receivers is a good thing if properly understood and adjusted. By using reaction or regenerating, economies in valves are possible; but if this method is not carefully utilised there is great danger of spoiling the programme; in addition to making the user of the set a public nuisance. It is only by very careful publicity to the evil that the growth of the oscillating valve interference can be stopped.

The oscillating valve nuisance is not the only form of trouble experienced by listeners. (In country districts where receivers are few and separated fairly widely, this trouble is not experienced at all). In towns and cities near the coast—and particularly where coast wireless stations are situated—listeners who cannot read Morse signals by sound have to listen to telegraph signalling to the detriment of their attempts to receive the broadcasting programme uninterrupted. If they can read Morse telegraph signals fairly rapidly then there is an added form of entertainment for them. The signalling is conducted between ships and their stations ashore—wireless messages from passengers are sent out as in the case of land-line telegraphy.

The transmitting equipments on the ships—and frequently on the coast stations also—are of an obsolete type called the Spark system. This system was the earliest form of wireless, and cannot be operated without sending out interfering waves a long way off the proper wavelength that should be employed. The wavelength set aside for that class of communication is 600 metres, but owing to the old-fashioned equipment in use, an ordinary receiver will pick up the ship's signals anywhere between 400 and 700 metres. Thus broadcast listeners in or near coastal towns where communication is maintained with ships experience considerable difficulty in picking up the broadcast station without suffering the interference caused by the Morse signals.

There are several other forms of interference, that is, transmission or signal noises that cannot be tuned out, or are difficult to tune out. We will consider these in a later note.



3LO Drive for Hospital Radio Sets

Details of a big movement in Victoria. Our correspondent also conveys Christmas greetings from 3LO.

RADIO has now almost reached the dignified stage of being included in the curative agencies of disease. Gradually all hospitals are being equipped with wireless so that every patient in the hours of pain or discomfort may listen to the cheer that comes over the ether in the form of music and good talk. It is like having a series of visitors at every bedside, visitors that never ruffle the temper as even the best-intentioned ordinary ones do, but kindly, tactful folk who stop talking when requested, who come and go on tiptoe and leave only benefits behind them.

Some hospitals in Melbourne have already been equipped with wireless, through the activity of the "Sun Pictorial." Others are still "off the air." 3LO is naturally interested in seeing that this state of things is remedied and the station is co-operating with the "Herald" in the latter's big drive to see that the radio head-phones in hospitals await patients on their admission as surely as the bed itself. The "Herald" has headed the subscription with a donation, and the leaders of thought in the city have responded as they always do to an appeal to their generosity.

A visit to the hospital, when phones are nicely adjusted and a good programme is in process of being broadcast is to make one realise the therapeutic value of such treatment. The director of 3LO would have got a great "kick" out of remarks made to me by patients, as they took off the phones after the conclusion of one afternoon session recently.

"It takes our minds off the pain" said one patient. "You've no idea how beautiful the music sounds when you've been tossing and turning all night. Sometimes I drop asleep awhile and wake with the music in my ears. It seems for a minute as if it was

from heaven, for it takes me a bit to remember where I am.

"Then it gives us something to talk about to each other. We all have our favorites, and we have a bit of a spar at times about which is really best. That was a dandy programme to-day. I haven't so much as thought of my leg all through it. When the music stops, the pain begins again."

I suppose no other form of entertainment, apart from the numbers it includes, could have the effect of wireless on these poor people. Its very mystery adds to its enjoyment. Truly it must seem to come from heaven to men and women whose minds are twisted by pain and anxiety. Greetings from 3LO.

It is a pleasant custom that of 3LO in sending Christmas greetings in the form of post-cards to all its friends and "fans." I know of no other station in the world that does it.

"Too much bother for too little gain," is the excuse given me by one man connected with a wireless station. I wondered whether anything was too much trouble to build up that thing of incalculable value—goodwill. It may be thought that goodwill matters not a hoot to invisible entertainers who must entertain and "do their stuff" independent of what listeners think. Nothing could be further from the truth. The mood of the listener counts a lot. The cynical may think the receipt of a post-card from 3LO a form of advertisement, the trifle to catch flies, but he is secretly pleased that he was not overlooked. Let him test it. Let Jones next door get a post-card, and Smith over the road. Their children exhibit it proudly to Brown's girl, who tells her father. Brown instantly feels he's neglected.

"Don't I pay my license fee as well as Smith," he growls, and



Miss Rita Hilton, a new 3LO artist.

straightaway he "pucks a grouch" against 3LO for unfair discrimination. This proves the value of the pleasant custom in building up good-will.

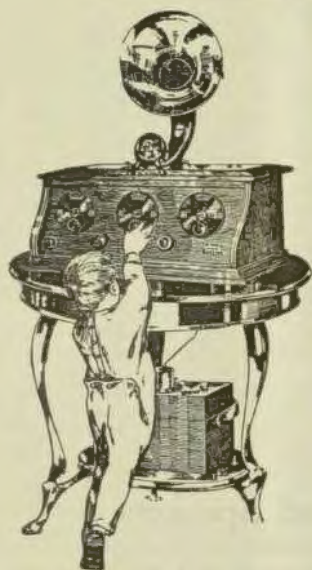
And indeed there is more in it than the good-will of the customer. There is the good-will of the studio. I have never met a more human lot of people than the kindly folk who run the 3LO studio. From the typists to the manager they are genuinely interested in their jobs. They realise that whatever they do affects the pleasure of thousands of people, and for that reason they take more pains than similar people elsewhere. They like to feel that the studio is known and liked all over Australia. They get quite a thrill when a letter comes from further away than ever before to say how a chance listener liked the programme. I think the greatest pleasure they ever got was when one such far-away listener actually sent along his money for a license, not that he need have done, for he was outside Australia. It was his way of showing that he was getting excellent service and it was up to him to pay for it. That man tunes into 3LO every night. Do you mean to say he won't be glad at getting the postcard that tells him he has not been forgotten? 3LO Still Leads.

I was interested to learn from the latest figures of license-holders that Victoria still holds pride of place among the States in point of numbers. It keeps its proportion to the

(Continued on Page 31.)

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MINGAY
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SUPER-FIVE



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14th December, 1926.

Mingay's Wireless Mfg
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Build the "Vincer-Minter" 3 Valve Receiver

Here are a list of reliable parts

	£	s.	d.
1 Best quality polished bakelite panel, 20 x 8 x 3/16 inches ..	0	10	6
2 Certified low loss condensers, .00035, 12/- ..	1	4	0
2 Emmco bakelite slow motion dials, 9/6 ..	0	19	0
1 Ajax wire wound 30 ohm rheostat ..	0	2	1
1 Ajax wire wound 6 ohm rheostat ..	0	2	1
1 Pilot Midget variable condenser ..	0	5	9
2 3½ lengths polished radion tubing, 2/11 ..	0	5	10
1 ½ lb. reel 24 gauge D.C.C. Wire ..	0	1	7
3 Brown UX valve sockets, 2/3 ..	0	6	9
1 Crescent transformer, 6 to 1 ..	0	13	6
1 Renrade mica condenser, .0001 ..	0	1	6
1 Renrade mica condenser, .0005 ..	0	1	6
1 Renrade mica condenser, .00025 ..	0	1	6
1 Single circuit jack ..	0	1	9
1 Battery switch, Philmore ..	0	1	8
1 Terminal board (engraved) ..	0	2	9
1 3 megohm gridleak ..	0	1	0
7 Lengths varnished cambric spaghetti, 5d. ..	0	2	11
12 Lengths square buswire ..	0	0	10
Total	£5	6	6

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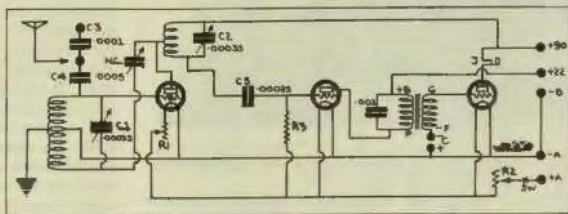
569 HUNTER ST. WEST, NEWCASTLE

Phone M 3049.

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The Vincer-Minter Three Valve Receiver

Build this new Circuit Employing one Stage of Neutralised Tuned Anode



NO one will deny the fact that the design of broadcast receivers is changing from day to day. When one compares the present-day receiver with its confrere of even eighteen months ago, a surprising change is noticed. There are several reasons for this, and it is hard to say just which is the most important. The public have demanded a minimum number of controls which pleases the aesthetic taste for appearance. Who can say that honeycomb coils protruding from a panel present a nice appearance? That the variable coupling of honeycomb coils tends towards simplicity of handling is obviously wrong. With the average circuit the coupling of the reaction coil to the grid coil, or any other coil for that matter, invariably causes a change in wavelength which calls for a further adjustment of the variable condenser, and which correspondingly means extremely delicate handling.

As we have already agreed, simplicity of control is essential, the designers and manufacturers of the different components have produced suitable apparatus to meet the new conditions. Consequently, we have to-day in receiving sets a minimum number of controls for a maximum result. Protruding honeycomb coils are disappearing altogether, those receivers designed for these coils, which, by the way, are quite efficient, generally have the honeycomb coils at the

back of the panel. Again, the drop in the wavelength of 2FC has provided us with the means of employing solenoid coils, which need not be interchanged to suit the different wavelengths. Condensers of the order of .001 capacity are not so readily sought after, smaller size variable condensers such as .00035 and .0005 mfd. being more in demand. Straight line frequency condensers and straight line broadening wavelength condensers are fast replacing the standard type of earlier years. The one-plate vernier is seldom if ever seen nowadays on account of the use of splendidly designed and highly efficient vernier dials.

New designs in valves, transformers and valve sockets are occurring every day. Power valves are now quite common, and better designed audio transformers are finding the way into the different home constructors' receivers. Instead of the maximum raucous volume, the listener-in-to-day demands quality of reception. To this end many of the modern receivers are equipped with one stage of audio frequency amplification followed by a power valve. This arrangement is certainly conducive to good quality reception of a pleasant, "listenable" volume.

The listener-in-to-day also is interested in receiving long distance stations. To this end high frequency amplification is very popular indeed,

and we in this country should be very proud of our qualifications as receivers on account of the great distances over which our receiving sets will respond. Situated geographically as we are, with all our "A" class broadcasting stations located in the capital cities around the coast, our problem is greater than that of any other country in the world. When one picks up an English radio magazine and reads therein of the reception of places such as Bournemouth, Manchester, etc., on small sets, this feat is not so great as the reception of Melbourne from Sydney, Brisbane, and so on. Bournemouth, in the South of England, is 100 miles airline from 2LO, London, whereas Manchester is approximately 150 miles away. As a means of gauging the distances of other English stations keep in mind the fact that there is not one place in the whole of the United Kingdom which is more than 120 miles from the sea. Again, England is dotted with low power broadcasting stations all over the country, as is also America, thus overcoming the great difficulties of our own vast continent.

Considering the population of Australia, we find that the greater number of people reside in or around the capital cities. By far the greater number of radio license holders are located in close proximity to the cities, and as our broadcasting stations, all of high power, are situate



A rear view of the Vincer-Minter, showing a very compact and neat appearance.

in the cities, shock excitation of many aeriels preclude the easy reception of the Interstate stations. Hence the popularity of radio frequency in Australian receivers.

With these facts in view the Vincer-Minter receiver described this week is being presented to you. Comprising one stage of radio frequency, detector and one stage of audio frequency, this receiver will appeal to quite a large number of people. The volume resulting is not quite as great as is obtained from the usual detector with two audio valves but nevertheless it is quite satisfactory for loud speaker results on stations up to 75 or 100 miles away. The clarity of musical tone is a feature worth while, and it is incorporated in this receiver.

Analysing the circuit we can distinctly pick out the tuned anode stage, the detector stage and the audio stage. It may seem peculiar to most that the earth lead is taken from a centre tapping in the aerial coil, which means that only half of the grid filament path is shunted across the circuit, thereby only applying half of the voltage to the valve, but the loss produced in this fashion is made up in the anode circuit, as the centre tapping there allows the top half of the coil to act as the primary, and the whole coil acting as the secondary of a auto transformer. Thus we get a 2 to 1 step up ratio in the radio frequency stage, the effect of which is felt when handling the circuit. The neutralizing condenser besides acting as a stabilizing agent also lends it-

self admirably as a further means of obtaining selectivity. To this end, this neutralizing condenser is mounted on the panel which permits of easy control and assists greatly in the separation of one station from the other. Actually a small midget is used for this purpose.

That the Vincer-Minter is of pleasing appearance is indicated by the front panel view of this receiver. The two condensers are equipped with vernier dials, the radio frequency valve being provided with a separate rheostat, which is, by the way, just slightly critical of adjustment. The detector and audio valves, on the other hand, function well, with one rheostat

controlling the two. A switch is provided to switch off all valves in one operation, and at the extreme right hand bottom corner of the panel is located a jack for plugging in to speaker or headphones.

The plan view of the baseboard really shows the location of the different components. It will be noticed that the two inductances are placed at right angles to overcome that bugbear, magnetic coupling. Situate between these two coils is found the radio frequency valve socket, while on the other side of the anode coil is the detector valve socket, alongside of which is the audio transformer with the audio valve socket between it and the panel. At the stage these photographs were taken the aerial terminals had not been inserted, but an excellent position for these will be immediately behind the aerial coil, that is at the opposite corner of the baseboard from the battery terminal board.

The method of wiring adopted in the Vincer-Minter is a straight point to point method so popular with most countries of the world to-day. It is surprising just what extra efficiency can be obtained with this method of wiring over the usual straight busbar system so common here. Instead of busbar this week we have resorted in the use of varnished cambric spaghetti through which runs No. 20 gauge wire. This provides an easy, flexible method of wiring, which can be run very quickly indeed.

The terminal board is equipped with terminals for a "C" battery, as well as the usual "A" and "B" battery terminals. Reading from left to right of the plan view, these terminals are B positive, 90 volts for the radio and the audio valve; B positive 22½ volts for the detector valve; next B minus, then A positive, A minus, then C positive and C minus. These markings are clearly shown in the back of panel wiring diagram.

Construction.

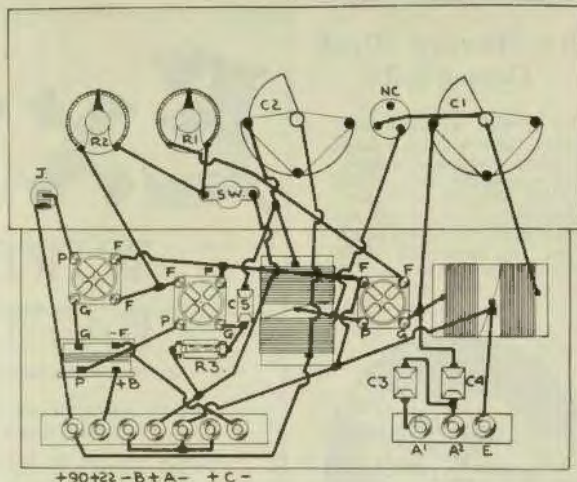
The winding of the coils will present no difficulty whatever. Firstly, at half an inch from one end of the former, bore two small holes half an inch apart, and equidistant from the

- 1 Panel, 16in. x 7in. x 3/16in.
- 2 00035 S.H. Condensers.
- 2 Emco Vernier Dials.
- 1 C.H. 30 ohms Rheostat.
- 1 C.H. 6 ohms. Rheostat.
- 1 Preferred Midget Condenser.
- 2 3/16in. length of 3in. diameter tubing.
- 4 ozs. No. 24 gauge D.C.C. wire.
- 3 Emco Valve Sockets.
- 1 Emco 5 to 1 Audio Transformer.
- 1 0001 Revside Fixed Condenser.
- 1 0005 " " "
- 1 00025 " " "
- 1 S.C. Jack.
- 1 Battery Switch.
- 1 Terminal Board.
- 1 2 meg. Leak and Clips.
- 7 lengths Varnished Cambric Spaghetti.
- 1 Baseboard, 17in. x 9in. x 1/2in.
- Wire for wiring purposes.
- 20 feet or so of No. 20 D.C.C. Sundry Screws.

end. Place the reel of No. 24 gauge D.C.C. wire over a nail driven into a board, so that the wire will run off freely. Thread the end of this wire through one of the holes, up through the other, and down through the first hole, then up again through the second. Pull the wire tightly and screw into position. Now proceed to wind 60 turns of wire on the former. When the 30th turn is reached, continue one turn of wire over the distance of half an inch and wind on the other 30 turns, securing by means of two holes just the same as at the start. In that strand which is in the centre of the coil provide a small loop, off which scrape the insulation ready for soldering later on. Wind the other coil in exactly the self-same manner, so that when completed each coil will consist of 60 turns of wire and a centre tapping.

On each former at a quarter of an inch from each end, and on the opposite side to that on which the starting and finishing holes are provided. These new holes are provided to allow a screw to go through to fix these coils to the baseboard.

Treat the baseboard to a couple of coats of shellac and leave on the one side until it dries. While it is drying proceed to mark out and drill the panel. Panel drilling diagram is provided and provided the constructor uses the same make of components as is itemized on the list herewith all the panel components should fit nicely and clear one another. Don't forget that the Emmco vernier



The back panel diagram of the receiver showing point to point wiring. Follow this in detail.

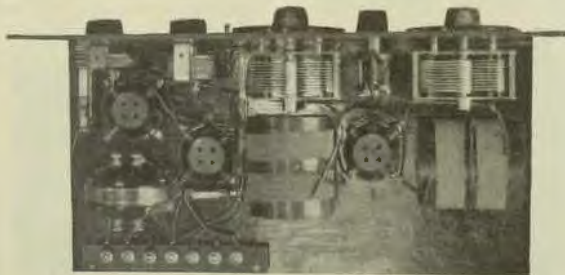
dial requires a separate hole apart from the spindle hole and as a template is provided with each dial the location of this new hole will soon be found. Before assembling the condensers on the panel, fix this Emmco dial catch screw in position, as this will save much trouble later on. However, having drilled correctly, assemble the panel components and leave this on the one side until the baseboard layout is prepared.

A few moments concentration over

the plan view and the back of panel view of the receiver, together with the wiring diagram, will show you the correct positions of the various baseboard components. Note carefully the manner in which the audio socket is placed. However, apart from the terminal board, screw down the rest of the components, employing small distance pieces of wood or fibre to keep the coil windings off the baseboard. Temporarily place the panel in position against the baseboard to make certain that the condensers and rheostats do not foul any of the baseboard apparatus. The receiver is now ready for wiring.

Wiring.

While the panel and the baseboard are still apart, start the wiring. Firstly, join one side of each filament rheostat together and from thence to one side of the switch. Next, connect the moving plates of the first condenser to the moving plates of the midgot condenser. This is as far as the wiring can be proceeded with on the panel at the moment. Now commence the baseboard wiring. Starting off at the audio end join the P terminal of the audio valve socket



How your receiver should appear from above.

The Moving Block Cannot Fall

The vernier movement comprises three sets of enclosed 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.



Patent No.
244,261

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C.Z.3.	50 amp. Hours intermittent	1 5 0
C.Z.4.	80 amp. Hours intermittent	1 9 6
C.Z.5.	100 amp. Hours intermittent	1 14 0
C.Z.6.	120 amp. Hours intermittent	1 19 0

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GIBSON BATTLE & CO. LTD.

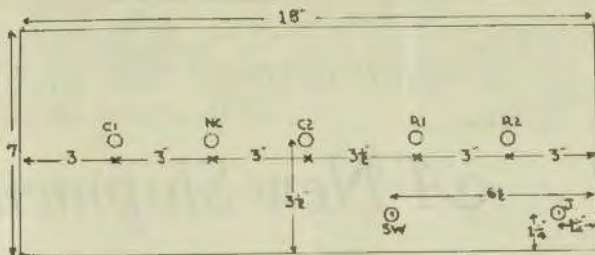
HUNT STREET, SYDNEY
(Off Wentworth Avenue)

Tel.:
M 3060

Tel.:
City 2174

to one leg of the jack. Next connect the grid terminal of the audio valve socket to the grid terminal of the audio transformer. Now join the P terminal of the detector valve socket, that is the middle socket, to the P terminal of the transformer. Link together one F terminal of each of the three valve sockets, and continue this wire right up to the centre tap of the aerial coil. Next link the few remaining F terminals of the audio and detector sockets together. Now insert the grid condenser, which comes from that end of the anode coil which will be close to the panel, this wire going straight to one side of the grid condenser, the other side of which is connected directly to the grid terminal of the detector socket. From this same grid terminal a lead is provided to one side of the grid leak. The centre of the anode coil is connected to the P terminal of the radio frequency valve, that is the valve socket which is situated between the two coils. The G terminal of this self-same socket is now connected to that end of the aerial coil which is nearest to the socket. This is as far as the wiring can be completed at this stage.

To the remaining side of the filament switch on the panel attach a long lead about 9 inches long. Now fix your panel to the baseboard, and continue with the wiring. That lead which joins the two P terminals of the audio and detector sockets respectively is now connected to the remaining terminal of the second rheostat. The remaining terminal of the first rheostat should now be taken to the empty terminal of the radio frequency valve socket. Now join the



Drill your Panel to correspond with these instructions.

fixed plates of the second condenser to the grid condenser and to that side which is connected to the coil. The moving plates of this condenser is now connected to the remaining side of the anode coil. The fixed plates of the neutralizing condenser should now be taken down to the P terminal of the radio frequency valve. Now you must tune the aerial coil, and this is done by linking the fixed plates of the first condenser, that is the aerial condenser, to the G terminal of the radio frequency valve. The moving plates of this condenser, which already join the neutralizing condenser, are now joined to the remaining outside end of the aerial coil.

The battery wiring has now to be inserted. Fix the terminal board in position and connect up as follows: C positive is connected to A minus and from thence to B minus. Then the B positive 90 volt terminal is linked to the remaining leg of the jack. The B positive detector terminal is connected to the B positive terminal of the audio transformer.

That long lead which comes from the switch is now joined to the A positive terminal which is also taken to the remaining side of the grid leak. The A minus terminal is now wired to some portion of that lead which joins the filament terminal of the three sockets together. The last battery wire is that which goes from the F minus terminal of the audio transformer to the C minus terminal on the terminal board. All that remains to be done now is the insertion of the aerial and earth leads. To the centre tap in the aerial coil is joined the earth, whereas the aerial is split into two portions and is connected through fixed condensers to the grid terminal of the radio frequency valve. Without explaining this it can easily be seen from the back of panel wiring diagram, as also can be seen all the wiring enumerated above.

When everything is wired correctly check off with this back of panel wiring diagram and also the circuit diagram to assure yourself that no errors have crept in, and the receiver can then be tested on the air.

Testing.

Connect the batteries to their respective terminals, 4½ volts C battery being sufficient for 90 volt B battery on UX201a valves. Mullard and Cunningham's and Cossors have a slip in the valve packet advising the correct bias battery. Insert the valves in their sockets and hook on aerial and earth. Connect the aerial to that terminal which includes the two fixed condensers in series in the circuit. Press the battery switch to the



The Front Panel of this receiver presents a very neat appearance.

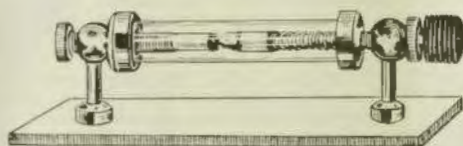
(Continued on Page 46).

A New Shipment

We regret having had to disappoint so many of our customers, through not being able to fulfil their orders for the famous LION MICRO PERMANENT DETECTOR due to the unprecedented demand throughout the Commonwealth. This will serve to intimate that new stocks have arrived and all outstanding orders will be fulfilled immediately.

After completing all outstanding orders we still have a limited stock to offer and would strongly advise those desirous of making their crystal set a Super Crystal Set or to improve their crystal-valve reflex set to order early to avoid disappointment. We pay carriage.

PRICE:
6/6 each



PRICE:
6/6 each

Illustration of Lion Micro Detector (actual size)

LION MICRO "Maxtone" enclosed in polished ebonite	8/6
LION MICRO "De Luxe" for panel mounting	7/6
NO ADJUSTMENTS	NO CATSWHISKER
DUST AND FOOL PROOF	NO MORE LOST CONCERTS

SOLD WITH OUR GUARANTEE

Sole Agents for Australasia:

Wiles Wonderful Wireless & Electrical Stores

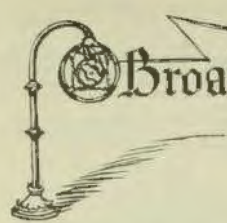
BRANCH:
23 PITT ST.

PITT & GOULBURN STS.,
SYDNEY

BRANCH:
384 PITT ST.

MAIL ORDER DEPT., 60 GOULBURN STREET.

ACCESSORY PRICE LIST R7 SENT POST FREE ON REQUEST



Broadcasting Programmes for the Coming Week



Friday, Dec. 24

2 FC

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 services.
7.25—Investment market, mining share market, metal quotations.
7.35—Wool sales, broodstock markets, interstate markets, produce markets.
7.45—"Sydney Morning Herald" news service.
8.—"Big Ben." Close down.
8.15—The Chimes of 2FC.
8.20—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's Cable Service.
11.9—News from the studio.
11.15—A talk on Home Cooking and Recipes, by Miss Ruth Furst.
11.35—Close down.

MIDDAY SESSION.

- 12.—The Chimes of "Big Ben" and Announcements.
12.5—Stock Exchange, First Call.
12.10—Music from the Studio.
12.15—From Farmer's Oak Hall: The Oak Hall Trio.
1.—"Big Ben"—Weather Intelligence.
1.3—"Evening News" Midday News Service. Producers' Distributing Society's report.
1.20—From Farmer's Oak Hall: The Oak Hall Trio.
1.25—Stock Exchange, Second Call.
1.40—Music from the studio.
1.50—From Farmer's Oak Hall: The Oak Hall Trio.
2.—"Big Ben." Close down.

AFTERNOON SESSION.

- 2.30—The Chimes of 2FC and Announcements; Music from the Studio.
2.55—Miss Lila Anderson, soprano.
3.—A Reading.
3.15—A Gardening Talk by "Red Gum" (Mr. J. G. Lockley).
3.25—Miss Lila Anderson, soprano.
3.30—From Farmer's Oak Hall—The Instrumental Trio.
3.45—Miss May Craven, soprano. "The Bright Day" (Martin).
3.55—The Instrumental Trio.
4.—Music from the Studio.
4.5—Miss Dorothy Benbow, contralto.
4.5—A music talk by Mr. Ewart Chapple.
4.20—From Farmer's Tea Rooms, Miss May Craven, soprano. "Saint Nicholas" translated from the hymn "Nod", by Martin.
4.25—The Oak Hall Trio.
4.30—Music from the Studio.
4.40—Miss Dorothy Benbow, contralto.
4.45—Stock Exchange—third call.
4.48—Close down.

EARLY EVENING SESSION.

- 5.45—Chimes of 2FC.
5.50—"The Hello Man" talks to the Children.
5.50—A serial story for the older children.
6.15—From Farmer's Dining Hall: Vocal and Instrumental Quartet.
7.—From the Studio: Last Minute Racing Information, by the 2FC Racing Commission.
7.10—"Evening News" late news service; Weather information.
7.30—Daily's Market Reports (wheat, wheat, stock), Fruit and Vegetable Markets.
7.40—Close down.

EVENING SESSION.

- 7.20—Announcing a Special Christmas Eve Programme.

Farmer's Service, Sydney, call sign 2FC, wave length 442 metres.
Broadcasters Ltd., Sydney, call sign 2BL, wave length 453 metres.
Trades Hall Broadcasting Station, call sign, 2KY, wavelength, 280 metres.

Theosophical Broadcasting Service, call sign, 2GB, wavelength, 316 metres.

Burgin Electric Coy. Ltd., Sydney, call sign, 2DE, wavelength, 316 metres.

Broadcasting Co. of Australia, Melbourne, call sign 3LD, wave length 371 metres.

Associated Radio Co., Melbourne, call sign 3AR, wave length 404 metres.

Queensland Radio Service, Brisbane, call sign 4QG, wave length 358 metres.

Central Broadcasters Ltd., Adelaide, call sign 5CL, wave length 395 metres.

Radio Broadcasting Co. of N.Z., Auckland, call sign 1YA, wave length 420 metres.

Western Farmer's, Perth, call sign 6WP, wave length 1250 metres.

Tasmanian Broadcasting Pty. Ltd., Hobart, call sign 7ZL, wave length, 464 metres.

- 6.—Broadcast from St. Andrew's Cathedral, Christmas Carols by the Choir.
8.30—Christmas Eve in London—A story from the studio, taking listeners in imagination for a trip through London on a typical Christmas Eve. The story has been written by Mr. S. H. Bowden (well-known world traveller, and authority on London life), in which he describes a meeting on the steps of St. Paul's Cathedral, London, just as the sound of the carols die away, of an Englishman (Mr. Laurence Halbert), and a Colonial (Mr. Van de Veldt). These three will describe as much of London as is possible in the time.
8.40—Down Fleet Street from the top of a "bus".
8.50—Flower sellers on Piccadilly.
9.—A cup of coffee in a Sobo restaurant, with an attendant atmosphere.
9.15—A peep into the Gaiety Theatre.
9.25—Some street songs.

- 9.32—A Color Sketch by Mr. Scott Alexander and Miss Annie Hughes.
9.45—Some items from a Music Hall.
9.50—A trip to the Foundling Hospital.
10—Supper in the "Chebby Sheers".
10.15—Alertations in Trafalgar Square.
10.25—Some more street scenes and the reproduction of a street scene.
10.45—Typical scenes in London street carried out by members of 2FC staff.
10.50—"Waite" interrupted with dance music.
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.
7.20—Physical Training and Health Exercises.
7.25—Health Hints.
7.30—Physical Training and Health Exercises.
7.45—G.P.O. Clock and Chimes.
7.48—Weather Report.
7.48—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—Broadcasters' News Service direct from Rugby.
10.8—Musical programme from the Studio.
10.20—News Service 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 "Daily Telegraph".
11.15—Rabbit Market Report.
11.15—Fish Market Report.
11.18—Vegetable Market Report.
11.21—Fruit Market Report.
11.24—London Daily Quotations.
11.27—London Dairy Produce and Egg Market Report.
11.35—Ships in call by Wireless.
11.34—Information re Interstate and Overseas Mails.
11.37—Shipping Information—arrivals and departures.
11.40—Women's Section, conducted by Mrs. Jordan; Social Notes.
11.50—Mrs. Jordan replies to correspondents.
12.—G.P.O. Clock and Chimes.
12.1—Talk on "Xmas Carols" by Mrs. Jordan.
12.25—News from the Sun.
12.30—G.P.O. Clock and Chimes.
12.31—Sydney Stock Exchange Calls.
12.35—Sun Newspapers News Service.
12.45—Hilliers' Instrumental Quartet.
12.48—G.P.O. Clock and Chimes.
1.—Weather Report.
1.31—Stock Exchange Reports.
1.36—News from the Sun.
1.46—Track Gallies and Sporting information.
1.52—News from the "Sun".
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. Meteorological.
3.5—Serial Notes from the "Sun".
4.10—"Sun" Newspapers' News Service.
4.10—Civil Service Stores' Trio.

- 2.30—G.P.O. Clock and Chimes.
 3.31—"Sun" Newspapers' News Service.
 3.45—Musical Programmes from the Studio.
 4—G.P.O. Clock and Chimes.
 4.1—Civil Service Stores' Train.
 4.15—Serial Story.
 4.30—Music from the Studio.
 4.45—Producers' Distributing Society's Fruit and Vegetable Report.
 4.50—Shipping information when available.
 4.55—News from the "Sun."
 5—Resumé of night's programme.
 5.45—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.
 5.8—The pupils of Miss Monica Scully will entertain the kiddies.
 5.40—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 Genl. Meteorologist.
 7.9—Stock Exchange Reports.
 7.14—Producers' Distributing Society's Vegetable and Fruit Market Report.
 7.19—Fruit and Vegetable Market Report ("Sun").
 7.22—Grain and Fodder Report ("Sun").
 7.26—Daily Produce Report ("Sun").
 7.30—Country News from the "Sun."

NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Broadcasters' Typical Chorus.
 8.3—Lyric Male Quartet.
 8.13—Miss Amy Ostinga, contralto.
 8.20—Miss Molly Bayner, comedienne.
 8.27—Mr. Norman Wright, tenor.
 8.34—Miss Billy Peck, songs at the piano.
 8.44—Miss Gladys Hart, soprano.
 8.51—Mr. Peter Sutherland, basso.
 8.55—Resumé of following day's programme.
 9—G.P.O. Clock and Chimes; Weather Report and Forecast by courtesy of Mr. C. J. Maraz, Genl. Meteorologist.
 9.13—Mr. Roger Jones, baritone.
 9.18—Broadcasters' Train.
 9.20—Interval.
 9.25—Lyric Male Quartet.
 9.35—Miss Amy Ostinga.
 9.42—Miss Molly Bayner.
 9.48—The Senior Sporting Expert of the "Sun" will talk on the prospects of Saturday's Racing.
 10.9—Duet, Miss Amy Ostinga and Mr. Peter Sutherland.
 10.7—Broadcasters' Train.
 10.23—Mr. Peter Sutherland.
 10.27—Miss Gladys Hart.
 10.35—Mr. Roger Jones.
 10.41—Mr. Norman Wright.
 10.50—Broadcasters' Train.
 11—G.P.O. Clock and Chimes; Carols from the Studio until midnight. Dance Music from the Ambassadors until 2 a.m.

2GB

- 6.45—Talks to children by "A.B.C."
 7.15—A Christmas story.
 7.30—Music from Studio.
 7.45—Announcements.
 7.55—Violin Solo by Minnie Horder.
 8.3—Address by J. J. Van der Louw.
 8.20—Vocal Quartette.
 8.30—Instrumental Quartette.
 8.40—Violin solos by Dan Scully.
 8.48—Talk on Radio.
 8.55—Carols by Clement Hoising.
 9.5—Announcements.
 9.15—Christmas Talk.
 9.25—Duet for two violins and piano.
 9.32—Vocal Quartette.
 9.42—Instrumental Quartette.
 9.52—"Great Thoughts from Great Minds," by Prof. H. Wood, God Save the King.

2KY

LUNCHEON HOUR SESSION:

- 12.15—Popular fox trots; Stephen Gramophone.
 12.25—Musical Interlude.
 12.35—News Items.
 1—Vocal Items.
 1.15—Hawaiian steel guitar selections.
 1.25—Union news and meetings.
 1.35—Local and musical items closing down at 1.45 p.m.

CHILDREN'S HOUR:

- 6.30—The Storyman, Mr. Thompson.

EVENING SESSION:

- 7—Sporting feature, Turf Topics. Review of Candidates and their Prospects for Tomorrow, Mr. T. G. Hopkins.
 7.40—Lectures: Notes of the Week, Mr. J. Ryan (Director, Labor Research and Information Bureau).
 8—A talk on Motor Cycling, by Mr. J. S. Hopkins.
 8.10—Pianoforte Solo, Miss Monica Larcombe.
 8.15—Sprang Sales, Miss Edith Welch.
 8.25—Monologue, Mr. David Edelman.
 8.35—Musical Interlude by Palais Royal Californians, Mr. Walter Boehm, leader (by kind permission of J. D. Benedetti, Ltd.).
 9.10—Sporting Feature: Full description of main contest from ringside of McHugh's Letchford Stadium.
 9.25—Result of fight from McHugh's.
 9.55—Music from the Studio.
 10—Special Christmas Eve programme, including Carols, Scrooges (Diogenes), and novel and appropriate items, closing 11.

3LO

MIDDAY SESSION.

- 12—Time Signal, British Official Wireless News from Rugby, Bente's and the Australian Press Association cables. "Argus" and "Herald" news services.
 12.45—Stock Exchange Information.
 12.50—Meteorological Information, Weather Forecasts for Victoria, Tasmania, South Australia, and New South Wales, Ocean Forecast.
 1—Time Signal.
 1.1—Studio Orchestra.
 1.10—Tom Masters, tenor.
 1.17—Bessie Guitton, violin.
 1.22—Harmonist male Quartet.
 1.28—Studio Orchestra.
 1.37—James Fraser, baritone.
 1.44—Studio Orchestra.
 1.50—Harmonist Male Quartet.
 2—Close down.

AFTERNOON SESSION.

- 3—3LO Melody Masters.
 3.10—Charlie Pope, postillon.
 3.17—3LO Melody Masters.
 3.27—"Au Fait" of Messrs. Buckley & Nunn Ltd., "Fashion Talk."
 3.42—3LO Melody Masters.
 3.52—Eulalie Blong, soprano.
 4—3LO Melody Masters.
 4.10—Mrs. M. Callaway Mahood, "The Art of Woodcut."
 4.25—3LO Melody Masters.
 4.30—Charlie Pope, comédien.
 4.37—3LO Melody Masters.
 4.42—Eulalie Blong, soprano.
 4.48—"Herald" News Service: Stock Exchange information, "The 3LO Girl" competition.
 5—Close down.

EARLY EVENING SESSION.

- 5.45—Children's Hour. Answers to letters and Birthday Greetings.
 6—Musical Programmes by Miss Eileen Parlo-Wilke and her "Sunbeam Singers."
 6.45—"Argus" and "Herald" news services, Bente's and the Australian Press Association cables.

- 4.45—Stock Exchange Information.
 6.51—Fish Market reports, by J. S. Burnett Ltd.
 7—River reports.
 7.3—Market Reports, by the Victorian Producers' Cooperative Co. Ltd. Haymarket Sheep Sales, Poultry, Grain, Calf, Hay, Straw, Jute, Dairy Produce, Potatoes and Onions.
 7.15—Market prices of oranges and lemons, supplied by the Victorian Central Citrus Association Pty Ltd.

NIGHT SESSION.

- 7.30—Mr. E. C. H. Taylor, "School Life and School Sport."
 7.40—Miss Maud Fane, now appearing in "The Cousin from 'where'" will speak to you from her dressing-room, by permission of J. C. Williamson Ltd.
 8—Studio Orchestra.
 8.6—Eulalie Blong, soprano.
 8.17—C. Richard Chubb, Flute.
 8.24—Rupert Hazel and Elsie Day.
 8.34—Studio Orchestra.
 8.40—J. Alexander Browne, baritone.
 8.47—"Sardigan" (Mr. Wolf, Sporting Editor of the "Argus" and "Australasian"), A Talk on Racing.
 8.57—Eulalie Blong, soprano.
 9.5—Studio Orchestra.
 9.13—J. Alexander Browne, baritone.
 9.20—Rupert Hazel, phon-fiddle solo.
 9.27—Collingwood Citizens' Band.
 9.34—Mr. H. K. Love, "Technical Topics."
 9.40—"Seoings" A Christmas Carol.
 10.20—Collingwood Citizens' Band.
 10.30—"Argus" News Service: British Official Wireless News; Meteorological information; Road Notes; Announcements.
 10.45—3LO Melody Masters.
 11.00—Collingwood Citizens' Band.
 12—Our Great Thought for To-night: "Hark! the herald angels sing, Glory to the newborn King! Peace on earth, and mercy mild, God and sinners reconciled," 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 China, Studio Barometer Readings, First Weather Forecast, Events of the day; Outdoor Thermometer Readings.
 12.5—Musical Selections, relayed from Hoyt's de-Luxe, Bourke Street; Mr. T. L. Campbell at the Wurliizer.
 12.30—Market Reports, Stock Exchange news.
 12.40—Musical selections.
 12.55—Shipping movements, Mail notes.
 1—Close down.

AFTERNOON SESSION.

- 2.30—Hoyt's Premier Orchestra, Cecil W. Frasier, conductor.
 3—Time Signal China; 2nd Weather Forecast; Musical Selections from the Studio; The Ron Bourkey Quartette.
 4—Time Signal China, G.P.O.'s Hoyt's Premier Orchestra.
 4.50—Evening Amusements.
 5—Time Signal China, Studio Barometer and Outdoor Thermometer Readings. Close down.

EARLY EVENING SESSION.

- 6.45—Children's Corner, by Ursula Rad.
 EVENING SESSION.
 7.45—British Official Wireless Press, Studio Barometer Readings, Racing Anticipations and Sporting Events, reviewed by "Field Glasses."
 8—Time Signal China from G.P.O.
 8.5—News and the Australian Press Association cables.
 8.7—Humorous Sketch, Molly Locke and

- Howard Symonds, "The Last Property Office."
 4.17—Madame Marlon Rowe, mezzo.
 5.24—Mr. Will Phillips, tenor.
 8.45—Mr. E. Stanley Haines, Gardening Talk
 8.45—Madame Agnes Smythe, Violinist.
 8.55—Ford Comedy Duo.
 9.5—Mr. George Wong, pianist.
 9.15—Miss Molly Lock and Mr. Howard Symonds, humorous sketch, "A Glimpse of Home Life."
 9.23—Madame Marlon Rowe, mezzo.
 9.30—Mr. Will Phillips, tenor.
 9.30—The Ford Co. Duo.
 9.50—Mr. George Wong, pianist.
 10—Time Signal from G.P.O.
 Studio Barometer Readings: "Ace" News; Locetti's Ballroom Orchestra, relayed from Greville Hall, under the leadership of Mr. Harry Nangle.
 11—Close down.

4QG

MIDDAY SESSION.

- 12.55—Tune-in.
 12.65—Time Signal.
 1—Market Reports, Weather Information. "The Daily Mail" news. "The Daily Standard" news.
 1.20—From Hotel Carlton: Lunch music from the lounge, played by Hotel Carlton Symphony Orchestra.
 2—Close down.
 AFTERNOON SESSION.
 3.30—From Hotel Carlton: The Hotel Carlton Symphony Orchestra.
 4.15—From the Studio: "The Telegraph" news.
 4.30—Close down.

EARLY EVENING SESSION.

- 5—"Daily Standard" News.
 6.20—A Christmas Eve Entertainment by the combined Band and Story Tellers.
 7—From the Council of Agriculture Studio: Market Reports; Lecture, "Co-operation in Ireland," No. 3, by Mr. J. F. Reid, Editor "Queensland Agricultural Journal."
 7.30—From the Studio of 4QG: Stock Reports, Announcements, Weather Information.

NIGHT SESSION.

- 7.45—Lecture Session: "Christmas and what the Holidays concert continued.
 8—Christmas Eve Concert.
 8—Metropolitan Weather Forecast for the Holidays concert continued.
 15—"The Daily Mail" News, Weather News. From the Crystal Palace, dance music.
 10.30—Concert continued.
 12—Close down.

5CL

MORNING SESSION.

- 11.50—G.P.O. Chimes.
 11.51—Stock Don Art.
 11.52—"Advertiser" News Service.
 11.55—Vocalion news.
 12—G.P.O. Chimes.
 12.1—"Advertiser" news service.
 12.2—Studio Concert.
 1.55 (approx.)—Ward & Co's, Stock Exchange Intelligence. Weather Reports and Station Announcements.
 2—G.P.O. Chimes.

AFTERNOON SESSION.

- 3—G.P.O. Chimes.
 3.1—Relay from "Maple Leaf" Cafe—Orchestral numbers.
 3.45—From Studio: Talk by Mrs. Coghill.
 4—G.P.O. Chimes.
 4.1—Relay from "Arcadia" Cafe—Orchestral numbers.
 4.55—Stock Exchange reports, general information, and station announcements.
 5—G. P. O. Chimes.

EVENING SESSION.

- 6.30—G.P.O. Chimes.
 6.31—Bedtime stories, by "Auntie Peggy."
 7.00—Market Reports.
 7.45—Sporting Talk by "Stanley."

- 4—G.P.O. Chimes.
 8.1—Merry-makers.
 8.11—Mr. Broadland Cooke.
 8.15—Merry-makers' Orchestra.
 8.20—Miss Meta Hiedel.
 8.25—Merry-makers' Orchestra.
 8.34—Mr. Don Parrell.
 8.44—Merry-makers' Orchestra.
 8.50—Miss Jean Churchward.
 9—G.P.O. Chimes.
 9.1—Weather reports.
 9.13—Merry-makers' Orchestra.
 9.15—Mr. Broadland Cooke.
 9.17—Merry-makers' Orchestra.
 9.27—Miss Meta Hiedel.
 9.46—Merry-makers' Orchestra.
 10—G.P.O. Chimes.
 10.1—Merry-makers' Orchestra.
 10.11—Mr. Broadland Cooke.
 10.15—"Advertiser" News Service.
 10.30—Merry-makers' Orchestra.
 10.46—Miss Meta Hiedel.
 10.44—Merry-makers' Orchestra.
 10.55—Mr. Don Parrell.
 11—G.P.O. Chimes. National Anthem. Close down.

6WF

THE WESTHILLIAN FARMERS' LIMITED BROADCASTING STATION (6WF).

Wireless Broadcasting Programmes for week ending December 29

(Programmes are subject to any alterations that may be necessary owing to unforeseen circumstances.)

MORNING SESSION.

- 12.30—Tune-in.
 12.35—First Local News Bulletin. Market Report. Sales from the Perth Glassery.
 1—Time signals from the Perth Observatory.
 1.1—Weather notes.
 1.2—Studio Septette.
 2—Close down.

AFTERNOON SESSION.

- 3.30—Tune-in.
 3.55—Musical programme. Afternoon Tea Concert, relayed from Messrs. Bonas' Ltd. Tea Rooms.
 4.30—Close down.

EVENING SESSION.

- 7—Tune-in.
 7.1—Musical evening for the kiddies, by Auntie Evelyn and Onelia Henry, Leslie, Percy and Duff.
 7.35—Stock and Share Intelligence. Market Reports. Cable news, by courtesy of "The Daily News" Newspaper Coy.
 8—Time signal from the Perth Observatory.
 8.1—Weather Notes, supplied by the Meteorological Bureau of Western Australia.
 8.1—Weather Notes.
 8.2—Studio Concert.
 10—Second News Bulletin, supplied by courtesy of "The Daily News" Newspaper Coy.
 11.15—Christmas Choral Items, by the Metropolitan Male Voice Choir Party.
 11.55—Close down.

7ZL

MORNING SESSION.

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

AFTERNOON SESSION.

- 3—G.P.O. Clock Chimes.
 Musical Items from the Studio.
 3.55—Hobart Stock Exchange quotations.
 3.55—Weather Information.
 4—G.P.O. Clock Chimes. Close down.

EARLY EVENING SESSION.

- 7—Children's Cornet. "Big Brother" chats to his Paik.

EVENING SESSION.

- 8—G.P.O. Clock Chimes. "The Mercury" special Tasmanian news service. Railway and/or produce sales. Weather Information.
 8.30—Hobart Stock Exchange quotations.
 8.10—Weekly Gardening chat, by Mr. George Nation.
 8.30—Concert from the Studio.
 9.15—Producer reports from Robert & Co. Ltd., Murray Street, Hobart. Tasmanian District Weather reports.
 9.30—"The Mercury" special interstate news service. Weather synopsis. Station announcements; Week-end Travellers' Information; National Anthem.

Saturday, Dec. 25

2FC

CHRISTMAS DAY.

MORNING SESSION.

- 10.40—Chimes and Announcements.
 10.45—Broadcast from St. Mary's Cathedral, Sydney, the bells of Christmas Morning.
 11—Broadcast from St. Patrick's Church, Church Hill, Dubois, "Messe Pontificale" with orchestral accompaniment. The offertory to be sung by the Rev. Father Ryan, S.M., from New Zealand; soloist, Missoprano, Miss Lynn Mills; Contralto, Miss Mary Bourke; Tenor, Arthur Champion; Bass, Charles Snodgrass. At the organ, Mr. W. J. Cousins, Leader of orchestra, Miss Kitty Burton. Conductor, Mr. W. H. McCarthy.
 12.30—Close down.
 2.35—Chimes and Announcements. Broadcast from Peterham Congregational Church, a special programme available for Christmas, arranged by the Rev. A. P. Moran, in which Christmas customs in various parts of the world will be dealt with, and music typical of the places described will be given. The musical programme will be in the hands of Mr. Christian Hoffmann.
 4.30—Close down.

NIGHT SESSION.

- 7.55—Chimes and Announcements.
 8—Broadcast from the Lyceum Hall, a Christmas Night concert, in aid of the Sydney Night Refuge Building. It is being arranged by the Central Methodist Mission. 2FC have donated their evening programme for the occasion.
 8—The Metropolitan Band, conducted by Mr. John Palmer, "Light Cavalry" (Von Suffel)
 8.14—Mr. Alfred Cunningham, English Operatic baritone. "Naareeb" (Gounod); (b) "Honour and Arms" (Handel).
 8.22—Mr. Harry Thomas, clarinetist, scene from "Christmas Carol" (Dickens).
 8.32—Madame Elsa Straik, well-known dramatic soprano.
 8.42—Mr. Ernest Archer, tenor (a) "Aveugle Guidé" (Gounod); (b) "Evening Song" (Rimondelli).
 8.49—Paul Vinogradoff, Russian pianist (a) "Serenade from "Don Juan" (Mozart); (b) "Valse" from "Faust" (Gounod).
 9—Metropolitan Band, selection of Stephen Adams songs.
 9.5—Mr. Alfred Cunningham, baritone (a) "The Living God" (O'Hara); (b) "The Holy City" (Adams).
 9.15—Mr. Harry Thomas, alto/soprano. "A Christian Maiden".
 9.22—Metropolitan Band, selection, "Gems of Scotia" (Round).
 9.30—Mr. Ernest Archer, tenor (a) "Love Lily" (Thompson); (b) "Sometimes at Dawn" (Costes).
 9.38—Paul Vinogradoff, Russian pianist, (a) "Fantasia (Impromptu)" (Chopin); (b) "March Militaire" (Schubert-Tausig).
 9.45—Madame Elsa Straik, dramatic soprano.
 9.55—Metropolitan Band. "The Gladiator's Farewell" (Blakenburg).
 10—Close down.

2BL

- 11—Service broadcast from St. Jude's, Bandwick.
 12—Organ Recital and Concert from the Studio.
 13—G.P.O. Clock and Chimes.
 14—Broadcasters' Topical Chimes.
 15—Eric and Ivy Butterfield, steel guitars.
 16—Mr. Clem Williams, baritone.
 17—Miss Marguerite Mestonagh, dramatic artist.
 18—Miss Bessie Cooke, contralto.
 19—Mrs. L. Kirwan, songs at the piano.
 20—Play by Miss May Nancarrow and partner.
 21—G.P.O. Clock and Chimes; Resumes of following day's programme; Weather Report and Forecast, by courtesy of Mr. C. J. Mares, Govt. Meteorologist.
 22—Mr. Lance Jeffrey, tenor.
 23—Miss Gladys Vernon, soprano.
 24—Miss Phyllis Atkinson, mezzo-soprano.
 25—Eric and Ivy Butterfield.
 26—Mr. Marcey Wilton, bass.
 27—Miss Marguerite Mestonagh, dramatic artist.
 28—Mr. Clem Williams.
 29—Miss Bessie Cooke.
 30—Mrs. L. Kirwan.
 31—Mr. Lance Jeffrey.
 32—Miss Phyllis Atkinson.
 33—Mr. Marcey Wilton.
 34—G.P.O. Clock and Chimes; National Anthem.

3LO

MORNING SESSION.

- 5—Auburn Methodist Choir, under the direction of Mr. J. Sutton Croft.
 6—Close down.
 7—Service from St. Paul's Cathedral.
 8—Close down.

AFTERNOON SESSION.

- 3—Quartet, flute, violin, viola and cello.
 4—Herbert Browne, tenor.
 5—Rowena Ronald, piano.
 6—Studio Orchestra.
 7—Elicie Davies, soprano.
 8—E. Richard Chapp, flute.
 9—Studio Orchestra.
 10—Herbert Browne, tenor.
 11—Rowena Ronald, piano.
 12—Elicie Davies, soprano.
 13—Studio Orchestra.
 14—Reginald Bradley, violin.
 15—Close down.

EVENING SESSION.

- 5—Children's Hour: Answers to letters and Birthday Greetings; "Bitty Bunny."
 6—"Bitty Bunny" will have a special Xmas Day talk to the children.
 7—Close down.

NIGHT SESSION.

- 4—Special Programme.

3AR

CHRISTMAS MORNING.

- 11—Morning Service from St. John's Church, Latrobe Street.
 11.30—The British Official Wireless Press, received by 3AR's operator from Roebury Wireless Station, England. Express train information. "Age" news bulletin.
 12—Time Signal Chimes from the G.P.O. First Weather Forecast; Studio Barometer Readings; Events of the Day.
 12.15—Musical selections from the Studio.
 12.30—Stock Exchange News, Foreign Exchanges of the world, supplied by the courtesy of Messrs. Thos. Cook & Son; Market Reports.
 12.50—Musical Selections.
 12.55—Mail Notices. Shipping Movements.
 1—Close down.

AFTERNOON SESSION.

- 3—Miss Violet Pinder, soprano.
 3.7—Mr. Clem Kearsy, tenor.
 3.14—Miss Truda Russell, contralto.
 3.21—Miss Mae Souton, soprano.
 3.28—Miss Elicie Davies, solo.
 3.35—Mr. Syd. Holmes, baritone.
 3.42—Miss Myrtle Mills, contralto.
 3.49—Mr. Edmund Sturley, tenor.
 3.56—Miss Katie Hocking, soprano.
 4.3—Mr. Clem Kearsy, tenor.
 4.10—Miss Truda Russell, contralto.
 4.17—Miss Violet Pinder, soprano.
 4.24—Miss Elicie Davies, solo pianist.
 4.31—Mr. Syd. Holmes, baritone.
 4.38—Miss Mae Souton, soprano.
 4.45—Miss Myrtle Mills, contralto.
 4.53—Miss Katie Hocking, soprano.
 5—Time Signal Chimes, Evening Amusement Guide, Studio Barometer and Outdoor Thermometer readings.
 5.15—Close down.

EARLY EVENING SESSION.

- 6.40—Children's Corner, Uncle Sam.

EVENING SESSION.

- 8—Time Signal G.P.O. Mr. Geo. English and Party.
 8.10—Mr. Geo. English, tenor.
 8.17—Miss Josephine Muller, soprano.
 8.24—Miss Jean Garfield and Mr. Leslie James in duet.
 8.31—Mr. Dan Hardy, baritone.
 8.38—Miss Jean Garfield, contralto.
 8.45—Mr. Leslie James, tenor.
 8.52—Miss Josephine Muller, soprano.
 8.59—Mr. George English, tenor, and Mr. Dan Hardy, baritone, duet.
 9.6—Miss Amy McVickers, soprano.
 9.13—Mr. Geo. English and party.
 9.20—Mr. Jeff. Allright, experiences on a walking tour from Warburton to Walkalla, via Woods' Point.
 9.50—Studio Barometer Reading.
 9.55—Close down.

4QG

MORNING SESSION.

- 11—Church Service from St. Stephen's Roman Catholic Cathedral.
 12.30—Close down.

NO AFTERNOON TRANSMISSION.

EARLY EVENING SESSION.

- 6—Special Bedtime Stories.
 7—Close down.

NIGHT SESSION.

- 7.30—Church Service from St. John's Anglican Cathedral.
 8.30—Special Christmas Concert.

5CL

MORNING SESSION.

- 10.30—"Advertiser" news service.

EVENING SESSION.

- 8—G.P.O. Chimes.
 8.1—Orchestral numbers, interspersed by vocal and instrumental items by Mrs. Keith Steward, Mr. Walter Hurst, Mr. James Ginnin, Mr. Syd. Marcell, Mr. J. Leithall (blind harpist).
 8.6—G.P.O. Chimes.
 8.11—Talk by Father Christmas to the Children.
 8.16—Studio concert, continued.
 8.21—G.P.O. Chimes.
 10.1—Studio concert, continued.
 11—G.P.O. Chimes and Close down.

6WF

- 3.30—Tune-in.
 3.35—Musical programme from the Studio.
 4.30—Close down.
 7—Tune-in.

- 7.5—Mr. Robert Edmondson will talk to the Kiddies.
 7.50—Handel's Oratorio, "The Messiah," will be rendered by St. Andrew's choir, under the conductorship of Mr. H. C. Giff, organist from St. Andrew's Presbyterian Church, St. George's Terrace, Perth.

Sunday, Dec. 26

2FC

MORNING SESSION.

- 19.55—Chimes and Announcements.
 11—Broadcast from St. Mary's Warley, the morning service, conducted by the Rev. E. North-Ash.
 12.10—From the Studio: News Session.
 12.30—Close down.

AFTERNOON SESSION.

- 1.30—Broadcast from the Manly Beach, items by the Manly Municipal Band, under the baton of Mr. J. Phelouze.
 5—Close down.

NIGHT SESSION.

- 6—"Big Ben" and Announcements.
 6.5—From the Studio; 2FC Vocal Quartette. Mr. Russell Ris, leader, will give the Song Cycle "A Pagoda of Flowers" by Amy Woodford-Finden.
 6.45—Mr. William Adams will talk on Christmas Hymns, illustrated on the organ by Mr. Kennedy. The following Hymns will be dealt with: "Hark, the Herald Angels Sing," "As with Gladness Men of Old," "While Shepherds watched their Flock," "Christians Awake!" "It came upon the Midnight Clear," "O, come, ye Faithful," "Brightest and best of the sons of the Morning," "Angels from the Realms of Glory," "Cradled in a Manger Meekly," "Once in David's Royal City."
 7.15—Broadcast from the Peleaham Congregational Church, the Evening Service, conducted by the Rev. A. P. Moran.
 8.25—Interval.
 8.30—From the Band Rotunda, Ocean Beach. Manly, the Manly Municipal Band, under the baton of Mr. J. Phelouze.
 9.30—From the Studio: Mr. William Dallison, tenor.
 9.35—Madame Vera Tsarna, soprano (a) "While Verdure Glad" (Haydn), (b) "Vale" (Russell).
 9.42—Mr. Ewart Chapple in piano solos.
 9.52—Mr. William Dallison, tenor.
 10—Madame Vera Tsarna, soprano (a) "All's right with the World" (Dei Rigoli), (b) "Oft in the stillly Night" (Old Irish).
 10.10—Close down.

2BL

MORNING SESSION.

- 10.45—News Session.
 11—Service broadcast from Chalmers Presbyterian Church.
 12.30—Bible Class conducted by Mr. W. Curo Bradley.
 4—Concert from the Studio.

EVENING SESSION.

- 7.15—Service broadcast from St. Jude's, Bandwick.
 8.30—From the Studio: Broadcasters' Trio.
 8.40—Miss Ida Leggett, soprano.
 8.47—Miss May Nancarrow, contralto.
 8.55—Resumes of following day's programme; Weather Report and Forecast by courtesy of Mr. C. J. Mares, Govt. Meteorologist.
 9—G.P.O. Clock and Chimes.
 9.15—Mr. Leslie Bierford, baritone.
 9.8—Mr. William Eward, tenor.
 9.15—Broadcasters' Trio.
 9.25—Duet.
 9.30—Mr. Bryce Carter, cellist.
 9.37—Miss Ida Leggett.
 9.44—Miss May Nancarrow.

- 8.52—Mr. Leslie Herford.
10—G.P.O. Clock and Chimes.
10.1—Mr. William Everard
10.2—Broadcasters' Train.
10.15—Close down.

2 GB

MORNING SESSION.

- 10.20—Music from St. Alban's Church.
10.20—Morning service from St. Alban's Lib-
eral Catholic Church.
12—Close down.

EVENING SESSION.

- 6.45—Music from Studio.
8.15—Vocal Quartette.
8.22—Songs by Mr. George Burdett.
9.30—Margaret Best and Clement Hosking
duet from "The Magic Flute."
9.45—Artist, Eva Graft; Air from the Messiah.
9.54—Miss Ada Brook, piano solo.
9—Announcements.
9.5—Ladies' Choir.
9.19—Mr. Herbert Biscoe, songs.
9.14—Artist, Mr. Rupert Marshall.
9.29—Artist, Mr. Rupert Marshall.
9.25—Miss Maudie Border, violin.
9.30—Vocal Quartette.
9.36—Recitative.
9.42—Vocal Quartette.

3 LO

- 10.55—Express Train Information.
11—Service from Scots' Church, Collins St.,
Melbourne; Rev. Dr. McLennan.
12.13—British Official Wireless News from
Rugby. Announcements.
12.20—Close down.

AFTERNOON SESSION.

- 2—Pleasant Sunday Afternoon Service, from
Wesley Church, Launceston Street, Chairman,
Rev. J. B. Cain.
4.30—Close down.

EARLY EVENING SESSION.

- 5.45—Children's Hour; Answers to letters and
Birthday greetings by Billy Burns.
6—Alma Horlock, soprano, will sing hymns.
6.7—Billy Burns will continue the story of
the "Christmas Carol."
6.20—Alma Horlock, will sing again.
6.27—Billy Burns, will tell you more about
David Livingstone.
6.40—Close down.

NIGHT SESSION.

- 7—Service from St. Paul's Cathedral.
8.45—"Cavalleria Rusticana."
9.50—"Arcus" and "Herald" news service.
Weather Forecast; "The 11.0 Girl"; Our
Great Thought; "Sunday is the golden clasp
that binds together the volume of the week."
—Langfellow.
10—God Save the King.

3 AR

MORNING SESSION.

- 11—Morning Service from Independent Church,
Collins Street, Rev. James, preacher.

AFTERNOON SESSION.

- 2—Miss Minnie Marks, soprano.
3—Mr. Les Shanley, tenor.
3.14—Miss Adeline Whitehouse, 'cellist.
3.21—Miss Ila Hall, contralto.
3.25—Mr. James Henderson, baritone.
3.35—Miss Florrie Marks, pianiste.
4.42—Miss Minnie Marks, soprano.
4.49—Mr. Les Shanley, tenor.
5.56—Miss Adeline Whitehouse, 'cellist.
4.5—Miss Ila Hall, contralto.
4.10—Mr. James Henderson, baritone.
Close down.

EARLY EVENING SESSION.

- 6—Children's entertainment by Ladybird.

EVENING SESSION.

- 7—Evening Service from Church of Christ,
Russhon Street, Melbourne. Rev. Lyall.



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 9.12—Studio Orchestra.
 9.19—Mr. Percy Blundell, tenor.
 9.25—Miss Sheila Macfar, violinist.
 9.33—Mr. Frank Thomas, baritone.
 9.40—Studio Orchestra.
 9.50—"Aero" News Bulletin, exclusive to 3AB.
 9.55—Close down.

4 QG

MORNING SESSION.

- 11—Morning Service from St. John's Anglican Cathedral, Brisbane.

AFTERNOON SESSION.

- The ceremony of the dedication of St. Augustine's Roman Catholic Church, Colongatatta.
 4.30—Close down.

NIGHT SESSION.

- 7.30—The complete Evening Service will be relayed from St. Augustine's Roman Catholic Church, Colongatatta.
 8.30—Band Concert.

5 CL

MORNING SESSION.

- 11—Relay from Flinders Street Baptist Church—Divine Service.

EVENING SESSION.

- 8.30—G.P.O. Chimes.
 8.31—Bedtime stories by "Auntie Sybil" and "Uncle Mike" (Sunday stories for children).
 9—Relay from Rose Park Congregational Church—Divine Service.
 9.15—Vocalists Trio.
 9.45—Mr. P. H. Nicholas: Talk on "Charles Dickens."
 9.50—G.P.O. Chimes.
 9.1—Weather reports.
 9.2—Studio concert continued.
 10—G.P.O. Chimes National Anthem. Close down.

6 WF

MORNING DAY.

- 10.45—Time-in.
 11—Morning service, relayed from Salvation Army Citadel, Perth. Ensign S. A. Somerville, speaker.
 7—Time-in.
 7.15—Children's Bedtime Stories, by Mr. Robert Edmondson.
 9.30—Evening service, relayed from Congregational Trinity Church, Perth.
 8.45—Band programme, relayed from the Government Gardens, by the Perth City Band.
 12.30—Time-in.
 12.35—First Local News Bulletin, Market Reports, Cables.
 1—Time signal from the Perth Observers.
 1.1—Weather Notes.
 1.30—Hazing events during the afternoon will be described in detail from the Perth Race Course.
 Close down.

EVENING SESSION.

- 7—Time-in.
 7.15—Bedtime stories, by Uncle Duffy.
 7.35—Stock and Share Intelligence, Market Reports, Cables, news by courtesy of "The West Australian" Newspaper Coy.
 8—Time signal from the Perth Observers.
 8.1—Weather notes.
 8.2—Popular Programme.
 10—Second News Bulletin supplied by courtesy of "The Daily News" Newspaper Coy.
 10.30—Close down.

7 ZL

EVENING SESSION.

- 7—Service from St. David's Cathedral, Mar-

quarie Street, Hobart; Preacher: The Bishop. Christmas Carols will be sung. 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, Dec. 27

2 FC

HOLIDAY PROGRAMME.

MORNING SESSION.

- 10.55—"The Chimes of 2FC and Announcements; "Sydney Morning Herald" News Service.

- 11—Rugby Wireless News.
 11.35—Music from the Studio.
 11.40—Close down.

MID-DAY AND AFTERNOON SESSION.

- 12.30—Races described from Randwick in the running, by 2FC Racing Commissioner.

- 1—"Big Ben" News Service. During the afternoon, the races will be described in the running from Randwick, by 2FC Racing Commissioner, together with full sporting information and the Interstate Cricket match, local cricket, etc.

- 4.30—Review of the results of sporting events during the afternoon. During the interstate sporting events, music will be heard from the Studio.
 4—Close down.

EVENING SESSION.

- 8—"The Hello Man" talks to the children.
 8.4—A serial story for the older children.
 9.1—Instrumental Music from the Studio.
 9.15—Local "Evening News" News Service.
 7.20—Full Sporting Resume.
 7.55—Chimes and Announcements.
 8—A Theatre Orchestra.

- 8.25—From the Studio: Mr. Walter Whyte, tenor, "I'll sing Those Songs of Araby" (Clax).

- 8.30—Miss Belle Pollard, soprano, "The Greatest Trick in the World".

- 8.40—Mr. Montgomery Stuart and company present a New Year's play entitled "Hogmanay". The characters, are as follows:—Jack Scarsdale, James Fraser; Sanders McLaughlin, Montgomery Stuart; Pelham Manneus, Joe Cassidy; Margaret Scarsdale, Mrs. Montgomery Stuart.

- 8.6—A Theatre Orchestra.
 8.20—From the Studio: Mr. Jack Lomaxdale, violinist.

- 8.30—Mr. David Craven, basso.
 8.35—Duet, Mr. Walter Whyte, tenor, and Miss Belle Pollard, soprano, "Kiss your Little Boy" (Arnold).
 8.42—Mr. Lionel Lawson, Violin solos.
 8.50—Mr. Montgomery Stuart, in a character sketch.

- 9—Mr. Walter Whyte, tenor, "I passed by Your Window" (Brasel).
 10.45—Miss Belle Pollard, soprano, "Uaill" (Sanderson).

- 10.10—Mr. David Craven, basso.
 10.55—"A Theatre Orchestra.
 10.20—From the Studio: Mr. Lionel Lawson, violin solos.

- 10.40—Mr. Walter Whyte, tenor, and Miss Belle Pollard, "Love's Own Kiss" ("High Jinks").
 10.45—Mr. Lionel Lawson, violin solo.

- 10.45—Mr. Walter Whyte, tenor, "Mary of Araby" (Old Scotch).
 10.55—Duet, Mr. Walter Whyte and Miss Belle Pollard, "Sympathy" (Frumi).

- 11—2FC Dance Band in dance numbers until middle Pollard.
 12—National Anthem, close down.

2 BL

EARLY MORNING SESSION.

- 7.15—G.P.O. Clock and Chimes.

- 7.16—Musical Programmes from the Studio.
 7.19—Physical Training and Health Exercises
 7.25—Health Hints.
 7.30—Physical Training & Health Exercises.
 7.45—G.P.O. Clock and Chimes.
 7.46—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".
 11—G.P.O. Clock and Chimes.
 11.1—Weather Report.
 11.3—Broadcasters' Special News Service from Rugby.

- 11.4—"Daily Telegraph" News Service.
 11.23—Music from the Studio.
 11.38—"Daily Telegraph" News Service.

- 11.43—Music from the Studio.
 12—G.P.O. Clock and Chimes.
 12.1—Bants in call by wireless.

- 12.4—Weather Report and Forecast.
 12.6—Shipping information—arrivals and departures.

- 12.8—Information re Interstate and Overseas Mails.
 12.12—Social Notes from the "Sun".
 12.17—News from the Studio.

- 12.30—G.P.O. Clock and Chimes.
 12.31—Music from the Studio.
 12.45—Hiller's Instrumental Quartette, directed Cyril Costling.

AFTERNOON SESSION.

- 4.30—News from the "Sun".
 4.40—Talk on sporting and athletic fixtures for the day: Lacrosse, Hockey, Tennis, Cricket, Sailing, Boating, Athletics, Rifle Shooting, Golf, Bowls, Turfing, Baseball. During the afternoon sporting information will be broadcast by courtesy of the "Sun" News-papers. Races will be broadcast from Randwick, also Interstate and country race meetings. The results of the Queensland v. Victoria Sheffield Shield Cricket match at Adelaide will be broadcast, also the N.S.W. v. Victoria Sheffield Shield Cricket Match played at Melbourne. Music from the Studio. During the afternoon racing resume will be given every half hour.

- 6—G.P.O. Clock and Chimes; Close down.

EARLY EVENING SESSION.

- 6.45—G.P.O. Clock and Chimes.
 6.46—Uncle George and the kiddies.
 6.51—Uncle George replies to kiddies' letters.

- 6.59—Conductor of the Emergency Band plays popular numbers on Saxophone.

- 6.59—Favillon Dinner Orchestra under the direction of Mr. Geo. Morrison.

- 7.15—Results of all sporting information, including Racing, Bowls, Tennis, Swimming, Sailing, Athletics, by courtesy of the "Sun".
 7.40—Country news from the "Sun", and results of all Sporting and Athletic fixtures.
 7.45—G.P.O. Clock and Chimes; Close down.

NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Broadcasters' Topical Chimes.
 8.3—"The Merryland Duo (steel guitars).
 8.15—Mr. William Eversard, tenor.
 8.21—Mr. Reg. Harrison, comedian.
 8.29—John and Nellie Sheen, instrumentalists.
 8.35—Miss Edna Lister, contralto.
 8.40—Resume of following day's programme: Weather Report and Forecast.
 9—G.P.O. Clock and Chimes.
 9.1—Madame Phyllis Howe, soprano.
 9.9—Ducks and 'O's.
 9.20—Mr. William Eversard.
 9.27—Interval.
 9.32—"The Marzabini Duo.
 9.52—Miss Edna Lister.
 10—G.P.O. Clock and Chimes.
 10.1—Mr. Reg. Harrison.
 10.5—Madame Phyllis Howe.
 10.15—Al. Williams 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.

- 4.45—Talks to Children by A.B.C.
- 7.15—Talks to Women.
- 7.30—Interesting Points.
- 7.45—Announcements.
- 7.55—Violin solos by Dan Sennly.
- 8.3—Address by Dr. J. Van der Leeuw, I.L.D.
- 8.20—Songs by Miss Hilda Hoyle.
- 8.24—Guessing Competition: First prize, one guinea; 12 consolation prizes of 5s. 6d. each.
- 8.53—String Quartette.
- 9—Announcements.
- 9.5—Piano solos by Miss Ada Brook.
- 9.12—Talk on Radio.
- 9.27—Instrumental Trio.
- 9.37—Songs by Miss Hilda Hoyle.
- 9.45—Instrumental Quartette.
- 9.54—“Great Thoughts from Great Minds,” by Prof. E. Wood.
- 10—God Save the King.

3 LO

MIDDAY SESSION.

- 12 noon—Time Signal; British Official Wireless News from Rugby; Editors and the Australian Press Association Cables; “Argo” and “Herald” News Services.
- 12.30—Description of Interstate Cricket Match, Victoria versus New South Wales, played at the M.C.C.
- 12.40—Stock Exchange Information; Shipping Intelligence.
- 12.45—Meteorological Information; Weather Forecasts for Victoria, Tasmania, South Australia, and New South Wales; Ocean Forecast. River Reports. “The SLO Girl” competition notes.
- 1—Time Signal.
- 1.1—Studio Orchestra.
- 1.10—Rein Miller, bass baritone.
- 1.17—Studio Orchestra.
- 1.25—Description of Interstate Cricket Match, Victoria versus New South Wales, from the M.C.C.
- 1.30—Description of Burle Race, Caulfield Races, by “Musket.”
- 1.35—Estelle Marie Trio.
- 1.51—Rein Miller, bass baritone.
- 1.55—Studio Orchestra.
- 2—Close down.
- 2.10—Description of Cricket Match, Victoria versus N.S.W., at the M.C.C.
- 2.30—Description of Juvenile Handicap, by “Musket.”

AFTERNOON SESSION.

- Results of Colic Races will be given as they come to hand.
- 3—Studio Orchestra.
- 3.5—Description of Malvern Handicap, Caulfield Races, by “Musket.”
- 3.10—Studio Orchestra.
- 3.15—Description of Interstate Cricket Match, Victoria versus N.S.W., played at the M.C.C.
- 3.25—Mrs. Dorothy Silk, Talk, “Homesicks.”
- 3.40—Description of Oberon Steeple, by “Musket.”
- 3.45—Description of the Summer Cup, from the Randwick Racecourse, Sydney.
- 3.50—Studio Orchestra.
- 4—Estelle Marie Trio.
- 4.20—Description of Popetown Cup, by “Musket.”
- 4.25—Description of Interstate Cricket Match, Victoria versus N.S.W., played at the M.C.C.
- 4.35—Wendling & Molloy, melody duo.
- 4.45—“Herald” News Service; Announcements; SLO Girl.
- 4.55—Description of Koorang Welter by “Musket.”
- 5—Close down.
- 5.30—Description of Interstate Cricket Match, Victoria versus N.S.W., played at the M.C.C.

EVENING SESSION.

- 8.40—Children’s Hour; Answers to letters and Birthday Greetings.
- 6—Eulalie Blang, in kiddies’ songs.
- 9.7—The story of the Kookaburra Laughing Song (with special Kookaburra laughs to welcome the New Year).

FOR THE TERM of ITS LONG LIFE

Because of its sturdy construction, and the fact that it is passed on to the user as soon after manufacture, the Ever-Ready Radio Battery has reached the pinnacle of popularity. Ever-Ready is guaranteed to give faithful service for the term of its long life.

A type for every requirement.



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, users recognizing its immense superiority over any unported cell. Size, 2½ x 4½, Weight, 2 lbs. Also for bells, telephones, signalling and electro-medical apparatus, &c.



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

Price 2/3

One of a group of radio batteries useful in wireless, lighting, and amplification. Size, 3½ x 4 x 1½. Most useful for bells, telephones, burglar alarms, medical coils, etc. With three brass terminals. Voltages 1.5, 3 or 4.5 volts. Useful for all wireless purposes as well as general utility.



“STANDARD” “A” BATTERY.

Price 3/-

The Ever-Ready “Standard” “A” Battery (4 cells), 4.5 volt, specially designed for economical operation of 1, 2, or 3 valves, taking .05 amperes at 3 volts. For sets with four or more valves, the most economical service is obtained by using two “Standard” “A” batteries connected in parallel.



WANDA PLUG RADIO BATTERY.

This illustrates the new radio high-tension “B” battery, which can be obtained 3½, 4½ or 6½ volts—fitted with a Wanda plug, and 2 screw terminals.

Small size, type W.P., 2½ volt	... 3/4
Small size, type W.P., 4½ volt	... 12/6
Small size, type W.P., 6½ volt	... 18/-
Large size, type X.P., 11½ volt	... 16/-
Large size, type X.P., 42 volt	... 21/-

If unsatisfactorily locally visit for address of nearest source of supply to

The Ever-Ready Co. (Gt. Britain) Ltd.

163 Pitt Street SYDNEY

- 6.17—Harold Collier and his mouth organ.
6.24—Little Miss Koolahura will tell the story of "Molly and the Straw Man."
6.40—"Argus" and "Herald" News Services; Reuters and the Australian Press Association Cables.
6.52—Stock Exchange information; Overseas Shipping.
6.57—Fish market reports, by J. B. Barrett Ltd.
7—River reports.
7.8—Market reports, by the Victorian Producers Co-operative Co. Ltd.; Haymarket Sheep Sales; Poultry, grain, sheep, hay, straw, Jute, dairy produce, potatoes and onions.
7.15—Market prices of oranges and lemons, by the Victorian Central Citrus Association Pty. Ltd.

NIGHT SESSION.

- 7.20—Under the auspices of the A.A.S.C., Mr. R. W. (Fats) Lumb, Australian Amateur Champion Cyclist, World Record holder for 10 Miles Motor Pacific Training for Cycle Racing.
7.40—Mr. D. A. Mendelsohn; Anywhere Anywhen.
8—Studio Orchestra.
8.10—Syd. L. Keton, tenor.
8.15—Tanya Terena, mezzo.
8.20—Wedding & Molloy, melody duo.
8.34—Reginald Bradley, violin.
8.44—Robert Hamill, flutes 3/4.
9—Ethel Marks Trio.
9.17—Stanton Hewitt, vocalists.
9.20—Syd. L. Keton, tenor.
9.32—Studio Orchestra.
9.42—British Official Wireless News/Announcements; 3LD Gols.
9.52—Studio Orchestra.
9.58—Studio Orchestra.
10.8—Harriet Hazel & Elsie Day, Harmonium.
10.18—Stanton Hewitt, vocalists.
10.42—"Arcadia" News Service; Announcements; Weather Forecast.
10.44—3LO Melody Masters.
11—Our Great Thoughts for Christmas last: "I have always thought of You-tonight last, when it has come round apart from the repetition due to its sacred name and origin. If anything belonging to it can apart from that—as a good time, a kind, forgiving, charitable, pleasant time." (Charles Dickens).
11.11—3LD Melody Masters.
11.45—God Save the King.

3 AR

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 Chimes; Studio Barometer Readings; 1st Weather Forecast; Sporting Fixtures; Events of the day.
12.5—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

- 1.30—Description of Shobra Murds, V.A.T.C. Caulfield Meeting.
1.30—Description of Juvenile Stakes; The Studio Trio.
1.55—Miss Rita Gibson, soprano.
1.55—Malvern Handicap description.
1.57—Melbourne Piano Trio.
1.58—Mr. Bert Postler, violinist.
1.59—Miss Rita Gibson, soprano.
2.37—The Melbourne Piano Trio.
2.40—Description of Olsson Steeds.
2.43—Mr. Ronald Bradley, pianist.
4—Time Signal Chimes; 2nd Weather Report; Studio Trio.
4.15—Description of Hopetoun Handicap; The Studio Trio.
4.50—Description of Kooragang Welw.
4.55—Evening Amusement Guide.
5—Time Signal Chimes; 3rd Weather Forecast; Close down.

EARLY EVENING SESSION.

- 6.45—Children's corner, by Uncle Ned.
7—EVENING SESSION.
7.45—British Official Wireless Press; Studio Barometer Readings.
8—Time Signal Chimes; Robert W. McHenry, tenor.
8.17—Edith Fennell, A.I.C.M., vocalists.
8.41—Leggitts Ballroom Orchestra.
8.50—Mr. A. J. Sullivan, travolique.
8.45—Leggitts Ballroom Orchestra.
9—John Cox, baritone.
9.5—Lili Humphries, lyric soprano.
9.50—Leggitts Ballroom Orchestra.
9.54—Robt. W. McHenry, tenor.
9.55—Edith Fennell, vocalists.
9.57—Mr. John Cox, baritone.
9.44—Lili Humphries, soprano.
9.57—Leggitts Ballroom Orchestra.
10—Time Signal Chimes; Studio Barometer and Thermometer readings; "Age" news Bulletin.
10.15—Leggitts Ballroom Orchestra.
10.40—Close down.

4QG

MIDDAY SESSION.

- 12.55—Tuning.
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."
1.50—From Hotel Carlton; Lunch Music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
2—Close down.

AFTERNOON SESSION

- 1.10—From Hotel Carlton; Afternoon Tea Music, played by Hotel Carlton Symphony Orchestra.
4.15—From the Studio; News Service, supplied by "The Telegraph."
4.40—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; Leggitts; Stock Reports; Announcements; Weather News.
7.15—Lecture Session: The Development of the Violin, by Mr. H. Scott-McCallum.
8—Concert including the Clarwin Orchestra; Metropolitan Weather Forecast.
8.15—From the Crystal Palace; Dance Music.
10—"The Daily Mail" news; Weather news; Close down.

5CL

MORNING SESSION.

- 11.30—G.P.O. Chimes.
11.31—Stock Day Art number.
11.40—"Advertiser" news service.
11.52—Vocalion number.
12—G.P.O. Chimes.
12.1—"Advertiser" news service.
12.40—"Stock Day Art" number.
12.38—V.C.I. Studio Orchestra in concerted numbers.
1.55—Ward & Co's. Stock Exchange intelligence, official weather synopsis, and station announcements.
2—G.P.O. Chimes.

AFTERNOON SESSION.

- 5—G.P.O. Chimes.
8.1—Relay from "Maple Leaf" Cafe—Orchestral numbers.
12.40—From the Studio; talk by Mrs. Cuthill.
4—G.P.O. Chimes.
4.1—Relay from "Arcadia" Cafe—Orchestral numbers.
4.50—Stock Exchange reports, general information and station announcements.
5—G.P.O. Chimes.

EVENING SESSION.

- 6.50—G.P.O. Chimes.
6.51—Bedtime stories.
7.50—Market reports.
7.50—Mr. Frederickson, automotive engineer, Vancouver, B.C. tenor.
7.50—Care of the Teeth, by Mr. Dungey.
8—G.P.O. Chimes.
8.1—Mr. Ross Kelson's Band.
8.11—Madame Thornhill.
8.15—Ross Kelson's Band.
8.20—"Twinkler's" original humorous talk.
8.30—Mr. Eric Walker.
8.45—Miss Ada Cook's Melodymasters.
9—G.P.O. Chimes.
9.1—Weather reports.
9.2—Concert, continued.
10—G.P.O. Chimes.
10.1—Ross Kelson's Band.
10.11—Madame Thelton.
10.15—"Advertiser" News Service.
10.30—Concert, continued.
10.58—Station Announcements.
11—Close down.

7ZL

MORNING SESSION.

- 11—G.P.O. Clock Chimes; The "Mercury" news; Stock Market, Shipping, Commercial Intelligence; Weather information; Ships within aerial range.
12—G.P.O. Clock Chimes; Close down.
EVENING SESSION.

- 7—Children's Corner; "Tig Brother" chats to his pals.

NIGHT SESSION.

- 8—G.P.O. Clock Chimes; The "Mercury" special; Tasmanian news service; Railway sanction produce sales; Weather information.
8.5—Robart Stock Exchange quotations.
8.5—Yvonne Tonia and Selwyns on the Melbourne Radioing piano, broadcast from Friday's showman, Elizabeth St.
9.15—Tasmanian District Weather Reports.
9.40—The "Mercury" special interests and service; Weather synopsis; Station announcements; National Anthem.

Tuesday, Dec. 28

2FC

EARLY MORNING SESSION.

- 2—"Big Ben" and announcements.
2.5—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.
7.35—Wool sales, breadstuffs markets, interstate market, produce markets.
7.45—"Sydney Morning Herald" news service.
8—"Big Ben"; close down.

MORNING SESSION.

- 8.15—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 Butler's Cables.
11.10—Music from the Studio.
11.45—Close down.

MIDDAY SESSION.

- 12—The Chimes of Big Ben; and Announcements.
12.5—Stock Exchange, First Call.
13.10—Music from the Studio.
12.45—Music from the Oak Hall; The Oak Hall Trio.

- 12.55—Miss Eileen Crowley, soprano, "Duffo-die A-Howing" (German).
- 1—"Big Ben"; Weather Intelligence.
- 1.4—"Evening News" midday news service. Producers' Distributing Society's reports.
- 1.20—Oak Hall Trio.
- 1.25—Stock Exchange—Second Call.
- 1.40—Miss Eileen Crowley, soprano, "The Little Grey Dove" (Saar).
- 1.45—Music from the Studio.
- 1.50—The Oak Hall Trio.
- 2—"The Children of Big Ben"; Close Down.

AFTERNOON SESSION.

- 2.30—The Chimes of 2FC and Announcements.
- 2.45—Music from the Studio.
- 3—A Reading.
- 3.20—Music from the Studio.
- 3.40—From Farmer's Tea Rooms: Miss Fernia Kutter, soprano, "The Bells of Youth" (Fletcher).
- 3.45—Oak Hall Trio.
- 3.55—Music from the Studio.
- 4—From Farmer's Tea Rooms, Miss Muriel Humphreys, contralto.
- 4.5—The Oak Hall Trio.
- 4.15—Music from the Studio.
- 4.30—Miss Fernia Kutter, soprano, "How Panacea Grows" (Torrioni).
- 4.35—The Oak Hall Trio.
- 4.45—Music from the Studio.
- 4.45—Miss Muriel Humphreys, contralto.
- 4.55—Stock Exchange—Third Call.
- 4.45—Close down.

EVENING SESSION.

- 5.45—The Chimes of 2FC.
- 5.50—The "Hello Man" talks to the Children.
- 6.30—W. H. Hall, M.A., will talk to the older children, "Man's little friend—the honey bee."
- 6.45—Dinner Music.
- 7.10—From the Studio: "Evening News" into News Service.
- 7.25—Daily's Market Reports, wool, wheat, stock, fruit, and vegetable markets.
- 7.40—A talk by Mr. Grutzschler, on "The Wonders of Nature."

NIGHT SESSION.

- 7.55—Chimes of 2FC and Announcements.
- 8—Broadcast from the Darlington Town Hall, items by the Metropolitan Band, under the baton of Mr. John Palmer: (a) "The Prairie Flower" (Seddon); (b) selection, "Emerald Gems" (Smith); (c) Wally Hayes, "Red Poppies" (Rimmer).
- 8.25—From the Studio: Miss Virginia Bassett, contralto.
- 8.34—Mr. Oliver Waters, "Serenata" (Toselli).
- 8.38—The Metropolitan Band, Two Steps, "Excelsior" (Johnson).
- 8.47—From the Studio: Miss Virginia Bassett, contralto.
- 8.52—Mr. Oliver Waters, "Onze" (Arthur Harvey).
- 8.55—Miss Mabel Batchelor, soprano.
- 9—The Metropolitan Band, Fox Trot, "That Certain Party" (Kahn), March, "The Cowboy" (Rimmer).
- 9.15—From the Studio: Miss Virginia Bassett, contralto.
- 9.20—Mr. Wally Hayes, comedian.
- 9.30—Miss Mabel Batchelor, soprano.
- 9.35—Mr. Oliver Waters, "When Shadows Gather" (Marshall), (b) "Mary of Arzyle" (Nelson).
- 9.45—Miss Mabel Batchelor, soprano.
- 9.50—A Theatre Overture.
- 10.10—Mr. Wally Hayes, comedian.
- 10.40—From the Wentworth Hotel: Items by the Wentworth New Symphonic Dance Orchestra, under the baton of Mr. Sydney Simpson.
- 11—"Big Ben" and Announcements.
- 11.5—The Wentworth New Symphonic orchestra until midnight.
- 12—National Anthem; close down.

2 BL

EVENING SESSION.

- 1.15—G.P.O. Clock and Chimes.

- 7.15—Musical Programme from the Studio.
- 7.10—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 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.
- 10.5—Broadcasters' News Service direct from Rugby.
- 10.55—Daily Telegraph News Service.
- 10.55—Musical Programme from the Studio.
- 10.58—Daily Telegraph News Service.
- 10.45—Serial Story.
- 11—Musical Programme from the Studio.
- 11.15—Vegetable Market Report.
- 11.18—Fruit Market Report.
- 11.21—Other Market Reports.
- 11.24—London Metal Quotations.
- 11.25—Boats in call by Wireless.
- 11.31—Shipping Information.
- 11.33—Weather Report and Forecast by courtesy of Govt. Meteorologist.
- 11.35—News from the "Sun."
- 11.40—Women's Section; 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—News from the "Sun."
- 12.45—Hiller's Instrumental Quartette, direction Caryl Castling.

- 1.20—G.P.O. Clock and Chimes.
- 1.31—Weather Report.
- 1.35—Track Gallops and Sporting information.
- 1.45—Sun Newspapers News Service.
- 2—G.P.O. Clock and Chimes; Close down.

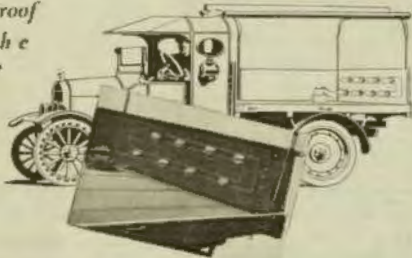
AFTERNOON SESSION.

- 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 Notes from the "Sun."
- 3.10—News from the "Sun."
- 3.15—Civil Service Stores' Tris, direction Miss de Courcy Bremer.
- 3.30—G.P.O. Clock and Chimes.
- 3.31—Sun Newspapers News Service.
- 3.45—Musical programme from the Studio.
- 4—G.P.O. Clock and Chimes.
- 4.15—Civil Service Stores' Tris.
- 4.15—Serial Story.
- 4.30—Musical Programme 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 Results on Race Days.
- 4.55—News from the "Sun."
- 4.58—Resume of night's programme.
- 5—G.P.O. Clock and Chimes. Close down.

EVENING SESSION.

- 5.45—G.P.O. Clock and Chimes.
- 5.45—Ugic George and the Kiddies.
- 5.45—Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison, Special Gravity Session.
- 5—G.P.O. Clock and Chimes.
- 7.1—Australian Maresnille Land and Finance Co's Report.
- 7.5—Weather Report and Forecast, by courtesy of Mr. C. J. Mares, Government Meteorologist.

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.

Valveholder with terminals	4/8
Valveholder without terminals	4/-
Combination Grid Leak and Valveholder ..	6/-



6 inch handle, two-way and three-way.
John Arnold, P.O. Box 871, Degrafs Street Malburin.

Garnett, Whiteley & Co., Ltd., Liverpool, Eng.

- 7.9—Stock Exchange Reports.
7.16—Producers' Distributing Society's Fruit and Vegetable Report.
7.20—Fruit and Vegetable Reports (Sun).
7.25—Grain and Poultry Report (Sun).
7.26—Bury Report (Sun).
7.30—Talk on the "World's Important Happenings," by courtesy of T. Phillips Gibson, Esq.

NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Broadcasters' Topical Chorus.
8.5—Miss Millie Hughes, soprano.
8.11—Mr. J. M. Post, Oboe solos.
8.19—Mr. Raymond Beatty, bass.
8.26—Broadcasters' Miniature Orchestras.
8.36—Miss Madge Hellmrich, contralto.
8.44—Mr. Frank Kyan, humorous entertainer.
8.52—Resume of following day's programme: Weather Report and Forecast.
9.1—G.P.O. Clock and Chimes.
9.1—Mr. G. Vera Barnett, piano solos.
9.11—Duet, Miss Millie Hughes and Mr. Raymond Beatty.
9.13—Broadcasters' Miniature Orchestras.
9.25—Interval.
9.30—Mr. J. M. Post, oboe solos.
9.37—Miss Millie Hughes.
9.45—Mr. Raymond Beatty.
9.53—Mr. Frank Kyan.
10.1—Broadcasters' Miniature Orchestras.
10.11—Miss Madge Hellmrich.
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 Newspapers will be broadcast.
12—G.P.O. Clock and Chimes; National Anthem.

2 KY

EVENING SESSION:

- 8—Pianoforte Solos, Miss Mary Bean.
8.16—Harrison Solos, Mr. Hugh Wilcock.
8.26—Mexco Soprano Solos, Miss Helen Cameron.
8.30—Musical Interlude: Palais Royal Californians, Mr. Walter Bevison, leader (by kind permission of J. C. Soudred, Ltd.).
8.45—Lesso Soprano Solos, Miss Lillian Hallam.
8.53—Mouth Organ Selections, Mr. A. G. Rickard.
9—Tenor Solos, Mr. G. Scott.
10.0—Soprano Solos, Miss Zara Neilson.
9.16—Palais Royal Californians.
9.26—Theatre Talk.
9.48—Hawaiian Steel Guitar selections.
9.59—Musical Interlude.
10—Closing Announcements.

Note: 2KY will be closed on December 25, and December 27, 1926, and on Tuesdays, 25, the transmissions will be given only during the Evening Session, commencing at 8 p.m.

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—Description of Interstate Cricket Match (Victoria v. New South Wales), played at Melbourne Cricket Ground.
12.40—Stock Exchange Information, Shipping Intelligence.
12.50—Meteorological Information: Weather Forecasts for Victoria, Tasmania, South Australia, and New South Wales; Ocean Forecast; River Reports; 3LO Girl.
1—Time Signal.
1.1—Studio Orchestra.
1.10—Rena Miller, bass baritone.
1.17—Studio Orchestra.
1.27—Wending and Molloy, Melody Duo.
1.34—Description of Interstate Cricket Match (Victoria v. New South Wales).
1.40—Rena Miller, bass baritone.
1.47—Studio Orchestra.
2—Time Signal.
2.10—Description of Interstate Cricket Match, Victoria v. New South Wales.

AFTERNOON SESSION.

- 3—Studio Orchestra.

- 3.10—C. Richard Chugg, flute and strings.
3.20—Description of Interstate Cricket Match, Victoria v. N.S.W.
3.40—Agnus Fortune, piano. Studio Orchestra.
4—Eileen Davico, soprano. Reginald Bradley, violin obligato.
4.10—Trio for Flute, violin and 'cello.
4.20—Description of Interstate Cricket Match, Victoria v. New South Wales.
4.30—"An Act" of Messrs. Buckley and Nunn Ltd., will give a Fashion Talk.
4.45—"Herald" News Service; Stock Exchange Information; 3LO Girl.
5—Close down.

EVENING SESSION.

- 8.00—Description of Interstate Cricket Match, Victoria v. New South Wales.
5.10—Children's Hour: Answers to letters and Birthday Greetings, by "Sobby Bluzium."
5.25—Eunice Blong, soprano, will sing to the children.
5.27—Story for the littlest ones by Bobby Bluzium.
5.42—Daphne Whitehead will whistle to you.
5.45—Eunice Blong will sing and dance again.
5.48—"Sobby Bluzium" will now tell a story for the bigger boys and girls.
5.53—"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. Borrett, Ltd.
6.55—River reports.
6.58—Market reports by the Victorian Producers Co-operative Co. Ltd.; Haymarket Sheep Sales; Poultry, grain, chaff, hay, straw, fats, dairy produce, potatoes and onions.
7.16—Market price of Oranges and Lemons by the Victorian Central Citrus Association Pty. Ltd.

NIGHT SESSION.

- 7.15—Mr. Alfred Kelly, Vice President of the R.A.O.V., will speak on "New Year resolutions for motorists."
7.30—Under the auspices of the University Extension Board, Mr. F. Sinclair, M.A., "Some Poets Involved in England."
7.41—Dr. Loftus Hills, "Popular Science."
8—Studio Orchestra.
8.10—J. Alexander Browne, baritone.
8.17—Agnus Fortune, pianiste.
8.23—Veronica Cox, soprano.
8.30—Singing Harvester Works' Pipes.
8.40—Wending and Molloy, Melody Duo.
8.50—Studio Orchestra.
8.56—Ethel Mark Trio.
9.15—"Cardigan," Mr. R. A. Wolfe, Sporting Editor of the "Argus" and "Australasian" will speak on the Sandown Races.
9.20—Robert Hazel and Elsie Day, in Harcourt's Act.
9.27—Daphne Whitehead, Stillness, in popular numbers.
9.31—Mamie Barton will accompany herself on the Ukulele.
9.41—Singing Harvester Works' Pipes.
9.51—"Argus" news service. British Official Wireless news. Announcements.
10.1—J. Alexander Browne, baritone.
10.9—Studio Orchestra.
10.14—Veronica Cox, soprano.
10.21—Daphne Whitehead will again entertain you.
10.27—Robert Hazel and Elsie Day are with us again.
10.33—Wending and Molloy, Melody Duo.
10.40—Meteorological Information. Announcements.
10.50—3LO Melody Masters.
11—"Our Great Thought for To-night is—" "When the power of imparting joy is equal to the will, the human soul requires no other heaven."—Shelley.
11.1—3LO Melody Masters.
11.46—God Save the King.

3 AR

MORNING SESSION.

- 11.30—British Official Wireless Press, continued

- from Rugby Super Wireless Station, England; Express Train Information; "Arg" 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.
12.55—Musical Selections.
12.59—Shipping Movements, Mail Notices.

AFTERNOON SESSION.

- Ballarat Miners' Turf Club, Koroita immediately after each race and at half-hourly intervals.
2.30—Selections by the Studio Quartette.
3—Cannon Barton in a little entertainment with her Ekelele.
3.8—Mrs. A. Smythe, violiniste.
3.14—Arthur Kempton, baritone.
3.23—Miss Marion de Saxe, flautiste.
3.30—Arthur Kempton, baritone.
3.37—Mrs. A. Smythe, violiniste.
3.46—Miss Marion De Saxe, flautist.
3.55—Cannon Barton in a further entertainment with her Ekelele.
4—Chimes, relayed from G.P.O. and Weather forecast.
4.1—Further selections by the Studio Quartette.
4.45—Evening Amusement Guide.
5—Time Signal; Chime. Studio Barometer Readings. Close down.

EARLY EVENING SESSION.

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

EVENING SESSION.

- 7.40—Mr. J. A. Gauld, of A. E. Higgins & Co. talk: "How to create an atmosphere in the home by means of furniture."
7.48—British Official Wireless Press, Studio Barometer Readings, Fat Sheep and Cattle Report, supplied by courtesy of Messrs. John McNamara & Co. Pty. Ltd.
7.53—Time Signal. Mr. T. Wheeler, tenor.
8.7—Miss Marjorie Melson, contralto.
8.16—Miss Mary Lilley, contralto.
8.21—A representative of the "Victorian Eye-sight Conservation Council" will speak on "Hygiene of the Eyes."
8.30—Mr. Alfred Harris, tenor.
8.43—Mr. Alfred Fritz, cornetist.
8.50—Maudie Belle Steane, contralto.
8.57—Mr. T. Wheeler, tenor.
9.4—Mr. Reginald Stoneham will speak on "The art of writing popular songs."
9.10—Miss Mary Lilley, contralto.
9.24—Miss Marjorie McLennan, violiniste.
9.33—Maudie Belle Steane, contralto.
9.40—Mr. Alfred Fitz, cornetist.
9.47—Mr. Alfred Harris, tenor.
9.54—Miss Florence Holloway, pianiste.
10—Time Signal; Chime from G.P.O. Studio Barometer Readings. "Arg" news service, exclusive to 3AR.
10.10—Leggett's Ballroom Orchestra.
11—Time Signal. Close down.

4QG

MIDDAY SESSION.

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

AFTERNOON SESSION.

- 2.00—A programme of music from the Studio.
2.16—"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.
8.30—The Children's Session. Stories by "Uncle Ben" and "Uncle Jim."

7.—From the Council of Agriculture, Studio: The Farmers' Season. Market Reports. Lectures.

7.30.—From the Studio: Stock Reports; Announcements. Weather news.

NIGHT SESSION.

7.45.—Lecture Session.

7.55.—The Arctic Male Quartette.

8.—Metropolitan Weather Forecast. From the Centennial Hall dance music.

10.—From the Studio: "The Daily Mail" News; Weather News, Close down.

5 CL

MORNING SESSION

11.30.—G.P.O. Chimes.

11.31.—Featuring a Steak Duo Art number.

11.40.—"Advertiser" news series.

11.55.—Vocalion number.

12.—G.P.O. Chimes.

12.1.—"Advertiser" news service.

12.16.—Featuring a Steak Duo Art number.

12.30.—5CL Studio Orchestra.

1.55.—Ward & Co.'s Stock Exchange Intelligence, official weather synopsis, and station announcements.

2.—G.P.O. Chimes.

AFTERNOON SESSION.

3.—G.P.O. Chimes.

3.1.—Relay from the "Maple Leaf" Cafe—Orchestral numbers.

3.45.—From the Studio: Talk by Mrs. Conhill.

4.—G.P.O. Chimes.

4.1.—Relay from the "Arcadia" Cafe—Orchestral numbers.

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

5.—G.P.O. Chimes.

EVENING SESSION

8.30.—G.P.O. Chimes.

8.31.—Bedtime stories.

7.30.—Market reports.

8.45.—Weather talk by Mr. Jackett.

9.—G.P.O. Chimes.

8.1.—Cadenzia Quartette.

8.11.—Mr. Howard Baurochose.

8.2.—Cadenzia Quartette.

8.25.—Madame D. Back.

8.29.—Cadenzia Quartette.

8.34.—Mr. Lionel Clarke.

8.43.—Cadenzia Quartette.

8.50.—Mr. Fred Williamson.

8.54.—Cadenzia Quartette.

9.—G.P.O. Chimes.

8.1.—Weather reports.

9.2.—Mr. Eric Wickens.

9.6.—Cadenzia Quartette.

9.16.—Mr. Howard Baurochose.

9.20.—Cadenzia Quartette.

9.27.—Madame D. Back.

9.31.—Cadenzia Quartette.

9.41.—Mr. Lionel Clarke.

9.45.—Cadenzia Quartette.

9.52.—Mr. Fred Williamson.

9.56.—Mr. Eric Wickens.

10.—G.P.O. Chimes.

10.1.—Cadenzia Quartette.

10.11.—Mr. Howard Baurochose.

10.15.—"Advertiser" News Service.

10.30.—Madame D. Back.

10.34.—Mr. Lionel Clarke.

10.43.—Cadenzia Quartette.

10.44.—Mr. Fred Williamson.

10.48.—Mr. Eric Wickens.

10.52.—Cadenzia Quartette.

11.—G.P.O. Chimes; Close down.

6 WF

MIDDAY SESSION.

12.30.—Tune-in.

12.35.—First Local News Bulletin. Market Reports; Cables.

1.—Time Signal from the Perth Observatory.

1.1.—Weather Notes.

1.2.—Musical programme.

2.—Close down.

AFTERNOON SESSION.

3.30.—Tune-in.

3.35.—Musical programme.

4.30.—Close down.

EVENING SESSION.

7.—Tune-in.

7.5.—Bedtime Stories by Uncle Duffy.

7.55.—Stock and Share Intelligence Market Reports. Cables, news by courtesy of "The Daily News" Newspaper Coy.

8.—Time signal from the Perth Observatory.

8.15.—Weather notes, supplied by the Meteorological Bureau of Western Australia.

8.2.—Band Night: Concert by the Perth Fortze Silver Band.

10.—Second Local News Bulletin, supplied by courtesy of "The Daily News" Newspaper Co.

10.30.—Close down.

7 ZL

MORNING SESSION.

11.—G.P.O. Clock Chimes.

11.12.—The "Mercury" News; Stock Market; Shipping; Commercial Intelligence; Weather information. Ships within wireless range.

11.50.—Local Express information.

12.—G.P.O. Clock Chimes; Close Down.

AFTERNOON SESSION.

3.—G.P.O. Clock and Chimes; musical items from the Studio.

3.30.—Inhart 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 pals.

7.15.—The Adventures of George, the Book-sheaf Cat, by "Aunt Stella."

8.—G.P.O. Clock Chimes; the "Mercury" Special Tasmanian News Service; Railway Auction Produce Sales; Weather Information.

8.10.—Inhart Stock Exchange Quotations.

8.15.—Literary Lapses and Library Lists, by Mr. W. E. Fuller.

8.30.—Musical items from the Studio; Special Request numbers.

9.15.—Tasmanian District Weather Reports.

9.50.—The "Mercury" Special Interstate News Service; Weather Synopsis; Station Announcements; National Anthem.

Wednesday, Dec. 29

2 FC

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 Services.

7.25.—Investment Market; Mining Share Market; Metal Quotations.

7.35.—Wool Sales; Produce Markets; Interstate Markets; Broadcast Markets.

7.45.—"Sydney Morning Herald" News Service.

8.—"Big Ben"; 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 "Musical Chimes."

11.10.—Music from the Studio.

11.30.—Marching Music for school children.

11.35.—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.—From Farmer's Oak Hall—The Oak Hall Trio (leader, Mr. Horze Keats).

12.55.—Miss Cecily Audibert, soprano, "Somewhere in the World" (Ayer).

1.—The Chimes of Big Ben; Weather Intelligence.

1.5.—"Evening News" Midday Service; Producers' Distributing Society's Report.

1.20.—Oak Hall Trio.

1.25.—From the Studio—Stock Exchange, Second Call.

1.40.—Miss Cecily Audibert, soprano, "Cheri, I Love You" (Goodman).

1.45.—Music from the Studio.

1.50.—From Farmer's Oak Hall: The Oak Hall Trio.

2.—"Big Ben"; Close Down.

AFTERNOON SESSION.

2.40.—The Chimes of 2FC and Announcements.

2.45.—Hans Results from Randwick Racecourse with intervals of music from the Studio.

3.10.—From Farmer's Tea Rooms: Miss Diana Booth, soprano, "Angels Guard Them" (Gardner).

3.45.—From Farmer's Oak Hall: Oak Hall Instrumental Trio.

3.55.—Music from the Studio.

4.—Miss Thelma Lamoureux, mezzo, "Derwick Market" (Frederick Drummond).

4.5.—The Oak Hall Trio.

4.15.—Music from the Studio.

4.20.—From Farmer's Tea Rooms: Miss Diana Booth, soprano, "The Tines of Pan" (Monkton).

4.25.—The Oak Hall Trio.

4.35.—Music from the Studio.

4.40.—Miss Thelma Lamoureux, mezzo, "Only the River Burning In" (Hopkins).

4.45.—Stock Exchange, Third Call.

NOTE—Description of Races from Randwick during the afternoon by 2FC Racing Commentator.

4.40.—Close down.

EARLY EVENING SESSION.

5.45.—Chimes of 2FC.

5.50.—The "Hello Man" talks to the Children.

6.30.—A Story for the older children.

6.45.—Dinner Music.

7.10.—From the Studio: "Evening News" late News Service.

7.30.—Duligoy'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 Studio: Mr. Emil Susmlich, tenor (a) "Let me Love" (Addict), (b) "L'Ultima" (Tosti).

8.8.—Miss Dorothy Ewhank, soprano, (a) "La Crepuscule" (Massenet), (b) "Ouvre tes yeux bleus" (Massenet).

8.16.—2FC Choir of 16 voices, conducted by Mr. W. Bourne.

8.24.—Mr. Charles Laurence, entertainer — "Schwartz is here Again", (Berke), (b) "The Last Toast" (Blacklock).

8.34.—Mr. Emil Susmlich, tenor (a) "My Love is Come" (Marsalis), (b) "My Fairest Child" (Bibi).

8.42.—2FC 16-voice Male Choir.

8.55.—Miss Dorothy Ewhank, soprano (a) "The Night Wind" (Parley), (b) "My Bird of April Days" (Bosley).

9.35.—Mr. Charles Laurence, entertainer (a) "After the Accident" (Black), (b) "What an Evening" (Nelson).

9.45.—2FC Male Choir, conductor, Mr. W. Bourne.

9.54.—"Radio Revelers," a party of entertainers specially brought together for the purpose of giving weekly radio programmes. They will entertain listeners for an hour. Included in the party will be Miss Zena MacKall, who will sing the following numbers: 1. "I'd Climb the Highest Mountain"

- (Clark); 2. An impression of Ella Shields singing "You're a Do-gooder Dangerous Girl" (John); 3. "On Burlington Boogie from Bow" (Harrows); 4. "Dixey Dangers" (a jazz novelty for the piano); (Conroy); 5. "Barcelona" (Evans); 6. "Lullaby Lane" (De Costa).
- 10.14—2FC Dance Band in Dance Numbers, conductor, Mr. Eric Pearce.
- 10.16—Mr. Mayo Holder in Steel Guitar Numbers.
- 11—"The Ben" and Announcements.
- 11.25—2FC Dance Band.
- 12—National Anthem; show down.

2 BL

EARLY MORNING SESSION

- 7.10—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—Weather Forecast.
- 7.48—Sporting Information.
- 7.50—Broadcasters' Special News Service.
- 8—G.P.O. Clock and Chimes; Close down.

MORNING SESSION

- 11—G.P.O. Clock and Chimes.
- 11.1—Weather Report.
- 11.3—Musical Programme from the Studio.
- 11.17—Daily Telegraph News Service.
- 11.23—Women's Section, conducted by Mrs. Jordan; Social Notes.
- 11.40—Mrs. Jordan replies to correspondents.
- 11.50—A talk on "Infant Welfare" by Dr. Morris.
- 12.15—Musical Programme from the Studio.
- 12.25—Market Reports.
- 12.31—London Metal Quotations.
- 12.35—Broadcasters' Special Rugby News Service.
- 12.38—Dance in call by Wireless.
- 12.40—Weather Report and Rainfall by courtesy of Govt. Meteorologist.
- 12.42—Shipping Information; Arrivals and Departures.
- 12.44—Mails, Interstate and Overseas.
- 12.46—News Service by courtesy of the Sun.
- 1.3—G.P.O. Clock and Chimes.
- 1.3—Hilfornia Lecture Serial broadcast from the Fine Art Gallery, Anthony Horners, by Mr. Arnold E. Muir.
- 1.40—Sporting information and race results from the Sun.
- 1.50—News 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—Weather Report.
- 2.35—Musical Programme from Studio.
- 2.45—Social Notes from the Sun.
- 2.50—Sun Newspaper News Service.
- 3—G.P.O. Clock and Chimes.
- 3.1—Musical Programme from the Studio.
- 3.15—News from the "Sun."
- 3.30—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 News.
- 4.15—Serial Story.
- 4.30—Producers' Distributing Society's Fruit and Vegetable Report.
- 4.45—Race Results.
- 4.59—Musical Programme from Studio.
- 5.1—Shipping news when available.
- 4.58—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

- 5.45—G.P.O. Clock and Chimes.
- 5.45—Triple George and the Kiddies.
- 5.40—Pavilion House Orchestra under the direction of Mr. Cec. Morrison.
- Special Country Session
- 7—G.P.O. Clock and Chimes.

- 7.1—Australian Mercantile Land and Finance Co's. Report.
- 7.3—Weather Report and Forecast, by courtesy of Mr. C. J. Mares, Government Meteorologist.

- 7.9—Producers' Distributing Society's Fruit and Vegetable Report.
- 7.14—Fruit and Vegetable Report (Sun).
- 7.18—Grain and Fodder Report (Sun).
- 7.22—Dairy Produce Report (Sun).
- 7.25—Country News from the Sun.
- 7.30—Talk on Books, news and otherwise.
- 7.45—A talk on "Tennis," by Mr. McElhannon, President N.S.W. L.T. Unions' Amos.

NIGHT SESSION

- 8—G.P.O. Clock and Chimes. Broadcasters' Vocal Chorus.
- 8.3—Miss Grace Saville, contralto.
- 8.10—Mr. Dudley Osborne, descriptive vocalist.
- 8.18—Miss Camille Alder, dramatic soprano.
- 8.25—Mr. Stanley Crittenden will talk on building a valve set.
- 8.45—Broadcasters' Trio.
- 8.55—Resume of following day's programme.
- 9—G.P.O. Clock and Chimes.
- 9—Weather Report and Forecast.
- 9.5—Mr. Hugh Godwin, baritone.
- 9.10—Mr. Bert Warrne, comedian.
- 9.15—Miss Grace Saville.
- 9.25—Broadcasters' Trio.
- 9.35—Triolet.
- 9.45—Miss Camille Alder.
- 9.55—Osborne and Warrne, topical topical patter comedians.
- 10—G.P.O. Clock and Chimes.
- 10.1—Broadcasters' Trio.
- 10.8—Mr. Hugh Godwin.
- 10.15—Al. Hammett and the Ambassadors Dance Band, broadcast from the ballroom.
- 10.30—Miss 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.

2 GB

EVENING SESSION

- 8.45—Talks to Children by A.B.C.
- 8.15—Talk to Women.
- 8.20—Interesting Talks.
- 8.48—Announcements.
- 7.55—Songs, by Miss Ethel Jones.
- 8.48—Address by J. J. Van der Leeuw.
- 8.55—Miss Monica Horner, violin.
- 8.58—Vocal Quartette.
- 9.35—"Betty Comes to Town."
- 8.53—Instrumental Trio.
- 9—Talk on points of interest.
- 9.4—Cello solo, by Muriel Legg.
- 9.12—Announcements.
- 9.15—Vocal Quartette.
- 9.25—Miss Monica Horner, violin.
- 9.30—Talk on "French Revolution," by Mr. A. V. Doyle.
- 9.58—"Great Thoughts from Great Minds," Prof. Wood.
- 10—Close the King.

2 KY

EVENING SESSION

- 7—Sporting feature; turf topics; a complete review of today's racing, Mr. T. G. Hughes in the chair.
- 7.40—Lectures, arranged by Miss Irwin, and delivered by Miss A. Isaacs.
- 7.45—Terror Solos, Billy Thom.
- 7.50—Performance of Lawn Cigarette competition.
- 8.05—Violin Solos, Miss Karen Cortese, (Miss E. Hollyoak, piano).
- 8.35—Musical Interlude, Palais Royal Club.
- 8.40—Marianne, Mr. Walter Beban leader. (By kind permission of J. C. Bendroit, Ltd.).
- 8.55—Announcements.
- 9—Selection, Hawaiian Steel Guitars.
- 9.15—Theatre Critiques.
- 9.35—Special feature from Palais Royal Description of Interstate Dancing Competition.
- 10—Closing Announcements.

3 LO

MID-DAY SESSION

- 12—Time Signal; Reuters and the Australian Press Association Cables; "Argus" and "Herald" News Services; Shipping Intelligence.
- 12.45—Stock Exchange Information.
- 12.50—Meteorological Information; Weather Forecast for Victoria, Tasmania, South Australia and New South Wales; Geese Report; River Reports.
- 1—Time signal.
- 1.1—Studio Orchestra.
- 1.7—Wendling & Molloy, the melody duo.
- 1.14—The Estelle Mark Trio.
- 1.30—Studio Orchestra.
- 1.40—Robert Hazell and Elsie Day.
- 1.47—Studio Orchestra.
- 3—Close down.
- 2.30—Description of the Hurule Race, Sandown Park, by Munkit.
- 2.40—Description of the Carrington Stakes, relayed from Handwick Race Course, Sydney.

AFTERNOON SESSION

- 3—Description of the Two Year Old Handicap.
- 3.15—M.L.O. Melody Masters.
- 3.25—Charlie Pope, the Coloured Kaimosi Room in Negro Melodies.
- 3.30—M.L.O. Melody Masters.
- 3.35—Description of Sandown Place.
- 3.40—Robert Hazell and Elsie Day.
- 3.42—M.L.O. Melody Masters.
- 3.45—Charlie Pope again; Hurule into song.
- 4—Description of the Sandown Park Handicap.
- 4.7—Miss Frances Fraser in a travesty.
- 4.8—M.L.O. Melody Masters.
- 4.30—Description of the Sandown Place.
- 4.35—Sister Peck, Motorcraft.
- 4.40—The M.L.O. Girl Competition; "Herald" News Service; Stock Exchange Information.
- 5—Description of Trial Writer.
- 5.5—Close down.

EVENING SESSION

- 5.40—Children's Hour; Answers to letters and Birthday Greetings.
- 5.55—Elsie Day.
- 6.2—A story for the wee ones by "Mary, Mary."
- 6.12—Here comes Robert Hazell.
- 6.20—For the older children "Mary Mary" tells the story of the Fire Tree.
- 6.45—"Argus" and "Herald" News Services; Reuters and the Australian Press Association Cables; Shipping Movements; Overseas Shipping; Weather Synopses.
- 6.47—Stock Exchange Information.
- 6.52—Fish Market Reports by J. R. Borrett Ltd.
- 6.55—River Reports.
- 6.58—Market Report by the Victorian Producers' Co-operative Co. Ltd.; Haymarket Sheep Sales; Poultry, Grain, Chaff, Hay, Sides, late, dairy produce, potatoes and onions.
- 7.10—Market prices of oranges and lemons, by the Victorian Central Citrus Association.

NIGHT SESSION

- 7.20—Mr. J. S. Boyce, Government Tourist Officer, in a talk on "Geometrically."
- 7.30—Mr. A. R. McMicken, "Melbourne's Greatest Boulevard."
- 8—William G. James, pianoforte recital.
- 8.20—The Launceston City Band.
- 8.40—Rein Miller, baritone.
- 8.47—Capt. G. H. Peters, Books, Wise and Otherwise.
- 9.5—Wendling & Molloy, the melody duo.
- 9.10—New Year Camp Fire. Music, story and verse; grape and gey, selected from the poets and writers of Australasia. Narrator, V. Uppin Brown.
- 9.25—The Estelle Mark Trio.
- 9.40—"Argus" News Service; The M.L.O. Girl; Weather Forecast.
- 9.50—The Launceston City Band.
- 10.3—Mascotte Ralston, soprano.
- 10.7—The Launceston City Band.
- 10.15—"The Cousins from Newbery," Red Act, transmitted from His Majesty's Theatre, by permission of J. C. Williamson Ltd.

- 10.30—"Arctic" News Service; Weather Forecast; Announcements.
- 11—"Our Great Thought;" "He is richest who is content with the least;" for the content of the "Woods of Nature;"—Scheraga.
- 11.15—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 from G.P.O.; Studio Barometer and Outdoor Thermometer Readings; First Weather Forecast; Sporting News.
- 12.15—Time Signal Chime; Studio Barometer Readings; 1st Weather Report; Events of the Day.
- 12.35—Musical selections from the Studio.
- 12.40—Stock Exchange News; Market Reports.
- 12.45—Musical Selections.
- 12.55—Shipping Movements; Mail Notices.
- 1—Close Down.

AFTERNOON SESSION.

Sandown Park Racing Club, results immediately after each race and at half-hourly intervals.

- 2.30—Selection by Studio Quartet.
- 3—Mr. Tom Frazer, tenor.
- 3.17—"The Classic Trio."
- 3.25—Miss Amelia Clancy, violinist.
- 3.30—Mr. Tom Frazer, tenor.
- 3.37—"The Classic Trio."
- 3.53—Mr. Stafford Byrne, cellist.
- 4—Time Signal Chimes; 2nd Weather Forecast; Studio Quartet.
- 4.45—Evening Amusements.
- 4.55—Time Signal Chimes; Studio Barometer Readings; Close Down.

EARLY EVENING SESSION.

- 4.45—Children's Corner, by Uncle Rud.

EVENING SESSION.

- 7.50—British Official Wireless Press; Studio Barometer Readings.
- 8—A night in Scotland and Ireland; Theresé Crowe, violinist.
- 8.7—James Henderson, haritone.
- 8.14—Bess Bartley, electricianist.
- 8.30—Mr. Dick Bayford, talk on "Ford Transmision."
- 8.51—Pipe Major Fraser.
- 8.55—Miss Joan Thornley, soprano.
- 8.52—Clement Katny, tenor.
- 8.58—Miss Theresé Crowe, violinist.
- 9.6—Mr. Ernest Kennedy, late of Dublin, ten minutes of Irish wit.
- 9.16—James Henderson, haritone.
- 9.23—Bess Bartley, electricianist.
- 9.30—Joan Thornley, soprano.
- 9.37—Pipe Major Fraser.
- 9.45—Clement Katny, tenor.
- 9.52—Nell Wyatt, contralto.
- 10—Time Signal Chime from G.P.O.; Studio Barometer Readings; "Age" News Bulletin.
- 10.18—Leggitt's Ballroom Orchestra.
- 10.40—Close down.

4QG

EARLY MORNING SESSION.

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

MIDDAY SESSION.

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

AFTERNOON SESSION.

- 3.30—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.

- 6—News Service supplied by the "Daily Standard"; Weather information supplied by the Commonwealth Weather Bureau; Announcements.
- 6.30—"The Children's Season" Stories by "Little Miss Brisbane."
- 7—From the Council of Agriculture; Market Reports; Lecture.
- 7.30—From the Studio; Stock Reports; Announcements; Weather Information.

NIGHT SESSION.

- 7.40—Lecture, Gardening, "Late Gerberas" by "Teema."
- 8—Studio Concert.
- 9—From Lennon's Ballroom; Dance Music by the 124 Novelty Band.
- 9.30—Studio Concert.
- 10—From the Studio "The Daily Mail" News; Weather News; Close down.

5CL

MORNING SESSION.

- 11.30—G.P.O. Chimes.
- 11.31—Stock Duo Art number.
- 11.40—"Advertiser" News Service.
- 11.55—Vocalian Number.
- 12—G.P.O. Chimes.
- 12.1—"Advertiser" News Service.
- 12.16—Featuring a Stock Duo Art number.
- 12.30—5CL Studio Orchestra.
- 12.5—Ward & Co's. Stock Exchange Intelligence; Official Weather Synopsis and Station Announcements.
- 2—G.P.O. Chimes.

AFTERNOON SESSION.

- 3—G.P.O. Chimes.
- 3.1—Relay from "Maple Leaf" Cafe—Orchestra Numbers.
- 3.15—From the Studio—Stock-Duo Art numbers.
- 4—G.P.O. Chimes.
- 4.1—Relay from Arradia Cafe—Orchestra and vocal numbers.
- 4.55—Stock Exchange Reports; General Information and Station Announcements.
- 5—G.P.O. Chimes.

EVENING SESSION.

- 6.30—G.P.O. Chimes.
- 6.31—Bedtime Stories.
- 7.30—Market Reports.
- 8.40—Boy Scouts' Corner.
- 8—G.P.O. Chimes.
- 8.1—Relay from Wondersgraph Theatre.
- 8.20—Studio Concert.
- 9—G.P.O. Chimes.
- 9.1—Weather Reports.
- 9.20—Studio Concert.
- 10—G.P.O. Chimes.
- 10.1—Studio Concert.
- 10.15—"Advertiser" News Service. Concert continued.
- 11—G.P.O. Chimes; Station Announcements; National Anthem; close down.

6WF

MIDDAY SESSION.

- 12.30—Tune-in.
- 12.35—First Local News Bulletin. Market Reports; Cables.
- 1—Time signal from the Perth Observatory.
- 1.1—Weather Notes.

AFTERNOON SESSION.

CUP DAY.

- 3.30—Racing events during the afternoon will be described in detail from the Perth Race Club.
- 5.30—Perth Cup.

EVENING SESSION.

- 7—Tune-in.
- 7.5—A playette for the kiddies, by Uncle Duffy, with Aunties Kate and Evelyn and Uncles Henry, Leslie, Perry and Duffy.
- 7.55—Stock and Share Intelligence, Market Reports. Cables, news by courtesy of "The Western Australia Beverage Co."
- 8—Time signal from the Perth Observatory.
- 8.1—Weather Notes, supplied by the Meteorological Bureau of Western Australia.
- 8.15—Variety.
- 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 and Chimes; the "Mercury" News; Stock Market; Shipping; Commercial Intelligence; Weather information, and Sporting Anticipations; Ships within wireless range; Sainolite selections.
- 12—G.P.O. Clock Chimes; Close Down.

AFTERNOON SESSION.

- 3—G.P.O. Clock Chimes; Musical Items from the Studio; Story from Illustrated Tasmanian Mail.
- 3.30—Holbert Stock Exchange Quotations.
- 3.45—Weather Information.
- 4—G.P.O. Clock Chimes; Close Down.

EVENING SESSION.

- 7—Children's Corner, "Big Brother" chats to his pals.
- 7.15—Story from Illustrated Tasmanian Mail.

NIGHT SESSION.

- 8—G.P.O. Clock Chimes; the "Mercury" Special Tasmanian News Service; Railway Auction; Produce Sales; Weather Information and Sporting Intelligence; News.
- 8.5—Holbert Stock Exchange Quotations.
- 9.10—Abattoirs and Stock Market Reports from Roberts and Co. Ltd., Murray St., Hobart.
- 9.15—Physical Culture talk by Mr. George Collis.
- 9.30—Concert from the Studio.
- 9.45—Tasmanian District Weather Reports.
- 9.50—"The Mercury" Special Interstate News Service; Weather Synopsis; Station Announcements; Ships within wireless range; National Anthem.

**Thursday, Dec. 30
2 FC**

EARLY MORNING SESSION.

- 5—"Big Ben" and Announcements.
- 7.5—Music from the Studio.
- 7.10—Official Weather Forecast; Rainfall; Temperatures; Astral; Interstate News; Shipping Intelligence; Commercial News; Mail Services.
- 7.25—Investment Market; Mining Stars Market; Metal Quotations.
- 7.35—Wool Sales; Breadstuffs Markets; Interstate Markets; Produce Markets.
- 7.45—"Sydney Morning Herald" News Service.
- 8—"Big Ben" Close down.

MORNING SESSION.

- 8.15—The Chimes of 2FC.
- 8.20—Music from the Studio.
- 9.45—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.
- 11.35—Close down.

MIDDAY SESSION.

- 12—The Chimes of Big Ben; and Announcements.
- 12.1—Stock Exchange, First Call.

- 12.16—Music from the Studio.
 12.45—From Farmer's Oak Hall: The Oak Hall Trio (leader, Mr. Hines, vocal).
 12.55—Miss Enid D'Arcy, soprano, "The Star" (Rogers).
 1.—The Chimes of Big Ben; Weather Intelligence.
 1.8—"Evening News" Mid-Jay News Service. Producers' Distributing Society's Report.
 1.20—From Farmer's Oak Hall—The Oak Hall Trio.
 1.25—Stock Exchange—Second Call.
 1.30—Miss Enid D'Arcy, soprano, "Morning" (Sprague).
 1.45—Music from the Studio.
 1.60—From Farmer's Oak Hall—The Oak Hall Trio.
 1.65—A talk by RFC Racing Commissioner.
 2—"Big Ben"; close down.

AFTERNOON SESSION.

- 2.30—The Chimes of 2FC and Announcements
 2.35—A Recital on the "Rehning" Player Piano.
 3.10—A Reading.
 3.20—Music from the Studio.
 3.40—From Farmer's Tea Rooms: Miss Chris Hawlesford, soprano, "The Market" (Grove).
 3.45—Instrumental Music from the Oak Hall Trio.
 3.55—Music from the Studio.
 4.—From Farmer's Tea Rooms: Miss Margaret Grimshaw (soprano), "Love's Garden of Roses" (Wood).
 4.5—The Oak Hall Trio.
 4.15—Studio Music.
 4.20—From Farmer's Tea Rooms: Miss Chris Hawlesford, soprano, "A Little Child's Prayer" (Hayes).
 4.25—The Oak Hall Trio.
 4.35—Music from the Studio.
 4.40—From Farmer's Tea Rooms: Miss Margaret Grimshaw, mezzo, "The Spring of Paris" (Phillips).
 4.45—Stock Exchange—Third Call.
 4.48—Close down.

EARLY EVENING SESSION.

- 5.45—The Chimes of 2FC.
 5.50—"The Hello Man" talks to the Children.
 5.55—A Serial Story for the older children.
 6.45—Dinner Music from the Congress Band.
 7.10—From the Studio: "Evening News"—late news service and Weather Information.
 7.30—Dalgety's Market Reports (Wool, Wheat, Stock), Fruit and Vegetable Market.
 7.40—A Talk by the Technical Editor of "Wireless Weekly."
 Close down.

NIGHT SESSION

- 7.45—The Chimes of 2FC and Announcements.
 8—"Big Ben." A Theatre Organ.
 8.15—From the Studio: Signor Alberto Martin (a) Ross, and Aria "Celeste Aida" (Verdi); (b) "The Star" (Rogers).
 8.23—Items by the Congress Band.
 8.35—Miss Eleanor Statten, contralto.
 8.44—Further items by the Congress Band.
 8.55—Mr. Reg Greenwood, comedian. (a) "No going to the Sun" (W. David); (b) "Cruise of the Ancient Lights" (W. David).
 9.6—The Congress Band.
 9.15—Signor Alberto Martin, tenor (a) "Hells of Brittany" (Phillips); (b) "Mother O' Mine" (Tours).
 9.25—Items from a Theatre Orchestra.
 9.35—From the Studio: The Congress Band.
 9.45—Miss Eleanor Statten, soprano.
 9.55—Mr. Reg Greenwood, comedian. (a) "Choose her in the morning Earl" (W. David); (b) "Sing us a Song of Bonnie Scotland" (W. David).
 10—A Theatre Orchestra.
 10.30—From the Wentworth Hotel: Items by the New Wentworth Symphonic Orchestra, under the baton of the Sydney Simpson.
 10.42—Some Celebrity Records.
 10.60—From the Wentworth Hotel: Items by the Orchestra.

- 11—"Big Ben." Wentworth Orchestra until midnight.
 12—National Anthem: close down.

2BL

EARLY MORNING SESSION.

- 7.15—G.P.O. Clock and Chimes.
 7.18—Musical Programme from Studio.
 7.19—Physical Training and Health Exercises.
 7.26—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' Social News Service.
 8—G.P.O. Clock and Chimes; Close down.

MORNING SESSION.

- 8.—G.P.O. Clock and Chimes.
 10.1—Weather Report and Forecast.
 10.2—Broadcasters' News Service direct from Rugby.
 10.3—Daily Telegraph News Service.
 10.25—Musical Programme from Studio.
 10.35—Daily Telegraph News Service.
 10.45—Serial Story.
 11—G.P.O. Clock and Chimes.
 11.15—Ten Minutes' Talk supplied by the N.R.M.A.
 11.11—Music from the Studio.
 11.15—Dalgety's Market Report.
 11.18—Fruit Market Report.
 11.21—Other Market Reports.
 11.24—London Metal Quotations.
 11.28—Basket ball call by Wireless.
 11.31—Weather Report and Forecast.
 11.32—Shipping Information.
 11.37—Information re Interstate and Overseas Mails.
 11.40—Women's Session; Social Notes by Mrs. Jordan.
 11.50—Mrs. Jordan replies to Correspondents.
 12.4—G.P.O. Clock and Chimes; Talk by Mrs. Jordan, "Hogmanay".
 12.25—News from the Sun.
 12.30—G.P.O. Clock and Chimes.
 12.35—News from the Sun.
 12.40—Hiller's Instrumental Quartette, directed by Carol Cantling.
 1.50—G.P.O. Clock and Chimes.
 1.51—Weather Report and Forecast.
 1.53—Track Gallop and Sporting information.
 1.56—"Sun" Newspapers' News Service.
 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 Notes from the Sun.
 3.16—Sun Newspaper's News Service.
 3.15—David Jones' Tea Room Trio; Pianist, Miss Campers, violinist, Mr. Acheson, cellist, Mr. Clever.
 3.30—G.P.O. Clock and Chimes.
 3.31—Country Women's Session.
 3.40—Music from the Studio.
 4—G.P.O. Clock and Chimes; David Jones' Tea Room Trio.
 4.15—Serial Story.
 4.30—Musical programme from the studio.
 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.
 4.57—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—Doris George and the Kiddies.
 6.1—"The George and Aida" (the Solomon Island boys) entertaining the Ladies.
 6.40—Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison.
 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—Producers' Distributing Society's Fruit and Vegetable Reports.
 7.14—Fruit and Vegetable Report (Sun).
 7.19—Grain and Fodder Report (Sun).
 7.23—Dairy Produce Report (Sun).
 7.26—Country News from the Sun.
 7.45—A talk on "The Development of Motion Pictures within the Empire," by Mr. J. O'Donoghue.

NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Broadcasters' Topical Chorus.
 8.3—The Ambassadors' Instrumental Salon Quartet, under the direction of Mr. Claude McGlynn.
 8.25—Social and Fashion Notes broadcast from the Ballroom of the Ambassadors.
 8.28—The Ambassadors' Instrumental Salon Quartet.
 8.30—Miss Maudie Barnett, contralto.
 8.37—Miss C. I. Robertson, abolitionist.
 8.45—Miss Dorrie Ward, soprano.
 8.52—Mr. W. E. Lewis, baritone.
 9—G.P.O. Clock and Chimes; resume of following day's programme; Weather Report and Forecast by courtesy of Mr. C. J. Mares, Govt. Meteorologist.
 9.5—Mr. Bobby Watson, comedian.
 9.15—Social and Fashion Notes from the Ambassadors.
 9.18—From the Studio: Mr. Norman Wright, tenor.
 9.25—Duet, Miss Dorrie Ward and Mr. W. E. Lewis.
 9.29—Interval.
 9.32—Miss Maudie Barnett.
 9.36—Miss C. I. Robertson.
 9.46—Miss Dorrie Ward.
 9.53—Mr. W. E. Lewis.
 10—G.P.O. Clock and Chimes.
 10.1—Mr. Norman Wright.
 10.4—Mr. Bobby Watson.
 10.15—Al. Hammett and the Ambassadors' Dance Band, broadcast from the Ballroom of the Ambassadors. During the intervals between dances, National Reports, by courtesy of the "Sun" will be broadcast.
 12—G.P.O. Clock and Chimes; National Anthem.

2KY

EVENING SESSION.

- 7.30—News items.
 7.40—Sporting Feature; Scientific Training Series, Mr. E. R. Volgt (Olympic Games' Champion, 1908-11).
 8—The stories of the opera series. Opera to be announced. Arranged and presented by Mr. Geo. F. Manuel.
 8.15—Short Biographical Sketch of composer.
 8.20—The story of the opera with explanations of the drama and music.
 8.30—Musical and Vocal illustrations from each act of the opera.
 9—Novelty Interlude, Bo Blake and his Mandola.
 9.10—Mezzo Soprano, Miss Muriel Jones.
 9.15—Pala Royal Californians.
 9.40—Lectures on Social Service, Mr. J. D. Bridgde.
 10—Closing Announcements.

3LO

MID-DAY SESSION.

- 15 noon—Time Signal; British Official Wireless News from Rugby; Reuters and the Australian Press Association Cables; "Argus" and "Herald" News Services; Shipping Intelligence.
 12.45—Stock Exchange information.
 1.55—Meteorological information; Weather Forecast for Victoria, Tasmania, South Australia, and New South Wales; Ocean Forecast; River Reports.
 1—Time Signal.
 1.1—Charlie Pope, Colored Comedy Room.
 1.7—BLO Melody Masters.

1.53—Charlie Popo will sing once more.
2—Close down.

AFTERNOON SESSION.

- 5—Studio Orchestra.
- 4.10—Rena Miller, baritone.
- 5.14—Studio Orchestra.
- 5.24—Sylvia Van Ardenne, soprano.
- 5.32—Eddie Mark Trio.
- 4.45—Studio Orchestra.
- 5.25—Rena Miller, bass baritone.
- 4—Rupert Hazel & Elsie Day have something to say about Musical Comedy.
- 4.10—Studio Orchestra.
- 4.50—Sylvia Van Ardenne, soprano.
- 4.35—Rupert Hazel and Elsie Day, harmonically.
- 4.35—"Herald" News Service; Stock Exchange Information; The B.L.O. Girl Competition; Acceptances for Vicentian Races, Sat., January 1st.
- 4.45—Evening song from St. Paul's Cathedral.
- 5.30—Close down.

EVENING SESSION.

- 6.40—Children's Hour; Answers to letters and birthday greetings.
- 5.55—A varied musical programme for the kiddies by the pupils of Miss Elsie Passcoe-Welch.
- 6.50—"Argus" and "Herald" News Services; Shipping Movements; Overseas Shipping; Weather Synopsis.
- 6.47—Stock Exchange Information.
- 6.52—Fish Market Reports by J. R. Borrett Ltd.
- 6.55—River Reports.
- 7—Market reports by the Victorian Producers' Co-operative Co. Ltd.; Hagmarket 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.

NIGHT SESSION.

- 7.50—Mr. T. W. J. Cox, Metropolitan Superintendent of the Victorian Railways; Side-lights on the Holiday Traffic.
- 7.40—Mr. E. M. Passcoe, A Talk on Bowls.
- 8—Launceston City Band.
- 8.30—Francis Isaacs, soprano.
- 9.7—Reginald Bradley, violin.
- 8.15—Bob Molyneux, baritone.
- 8.28—Apen Fortuna, piano.
- 8.30—Francis Isaacs, soprano.
- 8.35—Launceston City Band.
- 8.47—Jack O'Hagan, baritone.
- 8.54—Doris Heddie, piano medley and popular hits.
- 9—Kenneth Impett, baritone.
- 9.7—Reginald Bradley, violin.
- 9.12—Bob Molyneux and Jack O'Hagan.
- 9.15—B.L.O. Melody Masters.
- 9.20—Chas. Nightingall.
- 9.30—B.L.O. Melody Masters.
- 9.40—Francis Isaacs, soprano.
- 9.55—The Allan Southerns in an Old Time Melody.
- 10—"Argus" News Service British Official Wireless News; Announcements.
- 10.10—Bob Molyneux, baritone.
- 10.14—Launceston City Band.
- 10.20—Jack O'Hagan, baritone.
- 10.27—Meteorological Information; Announcements; The B.L.O. Girl Competition.
- 10.37—Chas. Nightingall.
- 10.44—Launceston City Band.
- 10.54—Kenneth Impett, baritone.
- 11—Our Great Thought for To-night: "Let us have faith that right makes might, and in that faith let us, to the end, dare to do our duty as we understand it."—Abraham Lincoln.
- 11.15—B.L.O. Melody Masters.
- 11.40—God Save the King.

3 AR

MORNING SESSION.

- 11.50—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 Chimes; First Weather Report; Events of the day; Studio Barometer Readings.

- 12.5—Musical selections from the studio.
- 12.30—Stock Exchange News; Market Reports.
- 12.45—Musical Selections.
- 12.55—Shipping Movements; Mail Notices.
- 1—Close Down.

AFTERNOON SESSION.

- 2.30—Studio Quartet.
- 4—Time Signal Chimes; 2nd Weather Forecast; Studio Chimes; 2nd Weather Forecast; Evening Announcements.
- 5—Time Signal Chimes; Studio Barometer Readings; Close Down.

EARLY EVENING SESSION.

- 8.45—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 McNamara & Co.
- 8—Mr. Moy Ling, baritone.
- 8.57—Mr. Harold Stevens, pianist.
- 8.14—Mr. Arthur Shaw, baritone.
- 8.21—Mr. Frederick Beckwith, "The Science of Education."
- 8.30—Miss Dulcie Carson, soprano.
- 8.45—Clark's Dance Band.
- 8.57—Mr. Moy Ling.
- 9.4—Mr. Rupert Woods, "The troublesome cold and how to cure it."
- 9.15—Mr. Arthur Shaw, baritone.
- 9.26—Miss Dulcie Carson, soprano.
- 9.32—Clark's Dance Band.
- 9.47—Ghost story by Studio Phantom.
- 10.3—Time Signal Chimes; Studio Barometer Readings; "Age" News Bulletin exclusive to 3AR; Tourist and Road information supplied by courtesy of Pioneer Tourist Coaches Pty. Ltd.
- 10.15—Leggett's Dance Orchestra.
- 10.40—Close down.

4 QG

MIDDAY SESSION.

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

AFTERNOON SESSION.

- 2.30—A programme of Music from the Studio.
- 4.15—"The Telegraph" news.
- 4.55—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; Studio Market Reports; Lectuville.
- 7.50—From the Studio; Stock Reports; Announcements.

NIGHT SESSION.

- 7.45—Lecture, "The Origin of Words," by Mr. W. Doherty.
- A Radio Motor Hunt.—In conjunction with the Royal Automobile Club of Queensland. A motor carrying a party from the station will travel a secret route for 30 miles. The car carries a distinguishing light, and listeners are asked to describe its position. A prize of £1/-. is offered to the persons singing the studio, and whose name is drawn from the hat. The car may be hailed, and the persons doing so will receive a card, which will be filled in, and the first opened will receive a prize of £2/7s., second £1/7s.
- 8—Holiday song information.
- 10—From the Studio; "The Daily Mail" news; Weather News; Close down.

5 CL

MORNING SESSION.

- 11.50—G.P.O. Chimes.
- 11.51—Featuring a Stock Duo Art number.
- 11.40—"Advertiser" News Service.
- 11.55—Vocalion Number.
- 12—G.P.O. Chimes.
- 12.1—"Advertiser" News Service.
- 12.16—Featuring a Stock Duo Art number.
- 12.30—3CL Studio Orchestra.
- 1.55—Ward & Co. Stock Exchange Intelligence; Official Weather Synopsis and Station Announcements.
- 2—G.P.O. Chimes.

AFTERNOON SESSION.

- 3—G.P.O. Chimes.
- 3.1—Rays from "Maple Leaf" Cafe—Orchestral Numbers.
- 3.15—From the Studio—Stock-Duo Art numbers.
- 4—G.P.O. Chimes.
- 4.1—Relay from Arcadia Cafe—Orchestral numbers.
- 4.45—Stock Exchange Reports; general information and Station Announcements.
- 6—G.P.O. Chimes.

EVENING SESSION.

- 6.50—G.P.O. Chimes.
- 6.51—Bedtime Stories.
- 7.15—Health talk, arranged by Mr. Wittenbury.
- 7.30—Market Reports.
- 7.40—Familiar Talk arranged by Mr. Wittenbury.
- 8—G.P.O. Chimes.
- 8.1—Studio Concert.
- 9—G.P.O. Chimes.
- 9.1—Weather Reports.
- 9.9—Studio Concert continued.
- 10—G.P.O. Chimes.
- 10.1—Studio Concert, continued.
- 10.15—"Advertiser" News Service.
- 10.25—Studio Concert, continued.
- 11—G.P.O. Chimes; National Anthem; and Announcements; Close down.

6 WF

MIDDAY SESSION.

- 12.50—Time in.
- 12.55—First Local News Bulletin, Market Reports, Cables.

AFTERNOON SESSION.

- 1—Time signal from the Perth Observatory.
- 1.1—Weather notes, supplied by the Meteorological Bureau of Western Australia.
- 1.2—Studio Scatette.
- 2—Close down.
- 2.30—Time in.
- 2.35—Musical programme, including instrumental selections by Miss Evelyn Williams.
- A.R.C.M.
- 4—Studio Trio.
- 4.50—Close down.

EVENING SESSION.

- 7—Time in.
- 7.1—Stories for Tiny Tots by Annie Kane.
- 7.20—Uncle Duff; will talk to the Kiddies.
- 7.55—Stock and Share Intelligence, Market Reports, Cables, news by courtesy of "The West Australian" Newspaper Coy.
- 8—Time signal from the Perth Observatory.
- 8.1—Weather Notes, supplied by the Meteorological Bureau of Western Australia.
- 8.3—Orchestral Night, 6WF's Station Orchestra, conducted by Mr. Ronald B. Moyle, A.T.C.L.
- 9—Lecturers: "Robert Burns," by Dr. J. S. Baiter, B.A., LL.B.
- 10—Second News Bulletin, supplied by courtesy of "The Daily Mail" Newspaper Coy.
- 10.30—Close down.

7 ZL

MORNING SESSION.

- 11—5.P.O. Clock Chimes. The "Mercury" News; Stock Market; Shipping; Commercial Intelligence; Weather Information; Ships within wireless range.

11.50—Post Express Information.
12—G.P.O. Clock Chimes: close down.

AFTERNOON SESSION.

2—G.P.O. Clock Chimes: Musical items from the Studio.
3.10—Hobart Stock Exchange Quotations.
3.35—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 Hound-dog Cat. by "Aunt Sadie".

NIGHT SESSION.

8—G.P.O. Clock Chimes: The "Mercury" Special Tasmanian News Service; Railway Auction Produce Sales; Weather information.
8.10—Hobart Stock Exchange Quotations.
8.10—Selections by James L.X.L. Band, conductor, Mr. L. M. Barnett.
9.15—Tasmania District Weather Reports.
9.50—The "Mercury" Special Interstate news Service; Weather Synopsis; Station Announcements: close within wireless range.
Close down.

PARIS WILL SOON boast of a wireless university. The University Council has sanctioned the foundation of a wireless telephony school which will broadcast special lectures by eminent professors for the benefit of those taking the standard University courses. It is even possible that those who take this course of lectures will be allowed to take a special examination and gain their certificates in the usual way.

TRULY, studio managers receive some peculiar requests! One of the most recent ran as follows: "My wife left a note on the table that she was going away with another man, and she has gone. I want her back, and can pay £5." Apparently the gentleman thought that a fair price to pay for the broadcasting of an SOS. Another rang up with the message, "I have found a dog. Could you please broadcast it?" And yet another with, "I can't make my baby go to sleep. Will you ask one of the Uncles to talk to it?" Who says that we are not a nation of optimists?

THE CUNARD LINER, "Carinthia," which visited Australia last year, has been fitted with a short-wave transmitter. The ship transmitted the first commercial short-wave radio telegram ever sent from a ship to England. If ships meet with the same success as amateurs in their use of the short wave, a new era should be opened in long-distance communication at sea.

A SURPRISING NUMBER of people find radio their only means of keeping in touch with the religious world. Recently a bush missionary noticed a radio set in a boundary rider's hut west of the Lachlan River and he was informed that the owner always listened to the Sunday evening service and did not cut off until the last item on the evening programme was completed.

WHILE MODERNISING the old penal code of Spain, cognisance was given to the possibilities of radio in crime. Although there has been, so far, no cases of blackmail or libel over the radio, Spanish judges will have a law to go by if such a thing happens in their country. Severe penalties are provided for blackmailing or libel, either in newspapers or by radio. Slander, threats, or abusive utterances, either in the newspaper or by broadcasting, are other cases anticipated by the new penal code of Spain.

THE APPOINTMENT of the Earl of Clarendon, now an Under-Secretary for the Dominions, as chairman of the new B.B.C. Corporation, brings to an end a most interesting period of "intelligent anticipation" during which nearly everybody with any claim to public recognition was "named" in connection with the new post. It is understood that Lord Gainsford will be a member of the Corporation, and that the services of Mr. Reith will be retained.

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

EDISWAN
Wireless Gifts
this Christmas

Ediswan
For
Every-
thing
Wireless.

Leading Dealers Sell Them!

EDISON SWAN ELECTRIC CO. LTD.
55 Clarence St., Sydney; 268 Little Collins St.,
Melbourne; 154 Creek St., Brisbane; 85 Grenfell
St., Adelaide.

SEASON'S GREETING.

When one speaks of "Studio 3LO," everything and everyone is included—from the most important of the directors down to the office cat—a nice sleek individual named Tim. We just mention this as a preliminary to the fact that Studio 3LO send hearty greetings to all listeners in every nook and cranny of the Commonwealth, on the high seas, and everywhere, in fact where the Christmas message of "good cheer" can be picked up. As for the New Year, we trust it will be of great happiness and prosperity to all listeners—and we hope that as they listen to the tuneful process of welcoming in 1927 (the studio are giving a staff dance for the occasion) all the little disappointments that have been encountered during the past year will be forgotten.—Our Correspondent.

STRENGTH OF MODERN RADIO VALVES

An interesting series of experiments have recently been carried out at the Mullard research laboratories to show the mechanical strength of the electrode construction of P. M. valves.

The special anode ribbed after the principle of corrugated sheet iron was found to be capable of withstanding a direct load of 24 ozs. without displacement.

The P.M. filament was then tested to find the weight that this comparatively fine metal thread would support in comparison with other filaments.

Four complete P.M. valves could be lifted by a single P.M. filament even after 1,000 hours' life, whereas an ordinary filament would barely support a single valve.

These outstanding results point unmistakably to the high standard of design and construction of P.M. valves and it is not surprising that the popularity of these valves has grown out of all proportion to the multitude of other makes on the market.

British workmanship has always secured a prominent position for reliability, and this is particularly noticeable in the case of the productions of the ever-increasing Mullard organisation in London.



The Conservation of Energy

RADION Panels far excel any other insulating material in the conservation of both physical and electrical energy.

Radion can be easily sawed, drilled, machined and otherwise worked with minimum effort and without the slightest danger of chipping, cracking or breaking.

In the conservation of electrical energy, Radion is supreme, due to its established superiority over any other material in the four main

characteristics required, namely:

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

Do not jeopardize the value of your receiving set by using inferior materials. Save time and energy in the making and loss of power in the operation of your set by always insisting upon genuine Radion Panels and parts. Look for the name stamped on every piece.

SEND FOR FREE BOOKLET

"Building Your Own Set"

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



International Radio Co., Ltd.
200 Castlereagh Street — Sydney
91-92 Courtenay Pl.
Wellington, N. Z.

The Supreme Insulation

RADION

PANELS ~ DIALS ~ SOCKETS ~ KNOBS

ELECTRON WIRE

THE PERFECT AERIAL



Made Broadcasting Popular in Great Britain

For long-distance reception, ELECTRON, the Perfect Aerial, has no equal. Its heavily tinned strands, protected by vulcanised rubber insulation, covered with waxed braiding, makes insulators unnecessary and greatly improves reception.

That is why ELECTRON WIRE is the best Aerial in Great Britain. Its simplicity brought wireless within the reach of everybody—even a child can fix up ELECTRON WIRE and obtain perfect reception in a few moments.

Whether you have only a crystal set or even a large multi-valve set, you cannot obtain better results than those provided by ELECTRON WIRE—The Perfect Aerial.

IT'S SO EASY TO FIX, TOO!

You can simply string it over a line, 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 you like, and the results are there. Connect one end to your set, let the other be free, use a short piece as a switch and—there you are! Perfect reception and immediate satisfaction.

Proprietors:

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

ELECTRON WIRE BRINGS WIRELESS WITHIN THE REACH OF EVERYBODY.

- | | |
|-------------------------|---------------------|
| It Abolishes Insulators | It Promotes Comfort |
| It Abolishes Masts | It Saves Money |
| It Abolishes Renewals | It Brings Results |

Fool-Proof—Storm-Proof—Trouble-Proof

PRICE:

2/6

RETAIL

Plus Postage

THE ELECTROLEON CO. LTD.

Manchester Unity Buildings, 185 Elizabeth St., SYDNEY.

Phone: MA 1431.

Proprietors:

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

THE EASY WAY



Down to Davy Jones' Locker with 4QG

(Continued from Page 9.)

were beyond shark understanding; so the 4QG men re-registered their resolve to go down.

A descent had been made about 8ft. below the surface just beyond the ladder, when the "pull-up" signal came. Those on board had visions of sharks, but, when Mr. Robinson had been perched on the staging and his helmet was screwed off, the first thing he said was, "I'm all right, but I'm wet through." It was then discovered that the water had been leaking through the cuffs. These were bound tighter, and again the diver went down. This time he had just entered the water. This attempt proved abortive on account of inability to "tune-in" on the air-valve, this making the "diver's" breathing difficult.

After a consultation, Diver Stevens decided to try the suit out himself. Then was given a demonstration worth going a long way to see. The diver went straight down, and remained about below for 10 minutes, the party aloft following his movements by watching the air-bubbles rising to the surface. He returned to report all well, having made the job look so easy that "Uncle Jim" Woodland threw all discretion to the winds and decided to try his luck.

His essay was quite a success, and he quickly showed the benefit of the real diver's lesson. Down he went to the bottom, and down he stayed for perhaps two minutes. Suddenly Mr. Stevens, holding the life-line, felt it slackened, and said, "I think he's coming up." About two seconds passed, and then, amidst a general cry of "He's up," and a roar of laughter that Sandgate people might have heard, the "diver" was seen floating at the surface, his suit bloated out, arms outstretched, apparently helpless. Through the front window of the helmet could be seen a look of blank astonishment on the face of "Uncle Jim." When he had been rescued he explained that he was just beginning to enjoy the scenery below, when he tried to regulate the air flow, and inadvertently closed the valve. The next thing he knew was

(Continued on Page 54.)

New Price -- 45/- Each



Brandes

The Table-Talker

makes a friend of the electrical impulse

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

Ask your Dealer for Brandes.

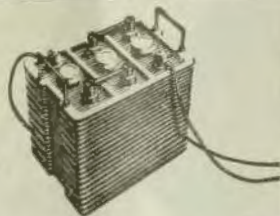
Now 45/- Each

FACTORY REPRESENTATIVES:

International Radio Company Ltd.

200 CASTLEREAGH, STREET, SYDNEY, N.S.W.

Also at 91-93 COURTENAY PLACE, WELLINGTON, N.Z.



Omelettes and Optimism

Quality, in an omelette, depends upon what comes out of the eggshells. You get no more out of a battery than the maker puts inside it. Stuffing counts.

When you see "P. & R." outside a battery, you know that inside it's crammed full of *energy*. Get a P. & R. and you get *capacity*—real, valve-working capacity, not somebody's cheerful optimism in amp-hours: you get a battery which stands up to its work; you get the kind of battery which Rolls-Royce fits as standard equipment.

You get, too, a "Dagenite" case which is leak-, shock-, acid- and heat-proof: anti-splash and anti-spray vents; terminals protected from corrosion by petroleum glands: you get a BATTERY. And one which costs no more than the ordinary kind.

P AND R
PETO & RADFORD
ACCUMULATORS

The beginning and the end in
POWER

D4

Gives you more programmes



The **REAL**
Long Distance Valve

DESIGNED specially for powerful long-distance radio reception. Gives you the means to pick up those weak elusive signals and amplify them to reality.

You can add the programmes of distant stations to your reception by securing the valves that are associated with all the great trans-world records.

MULLARD
 Double Red Ring
VALVES

Type D.3 for 2-volt accumulator. **PRICE**

Type D.06 for 2 or 3 dry cells or 4-volt accumulator.

GET ONE FROM YOUR RADIO DEALER.

13/6
 EACH

Mullard
THE MASTER VALVE

All Mullard Valves are manufactured at Mullard Works, London, England.

OBTAINABLE FROM EVERY RADIO DEALER IN AUSTRALIA

Advertisement of the Mullard Wireless Service Co. Ltd., "Mullard House," Denmark St., London, W.C.2, England.

3LO Drive for Radio Sets

(Continued from Page 12.)

rest of Australia, too, for it is still more than double all the rest of the States put together. There can be no manner of doubt that this is due to the general excellence of the numbers and the quality of the artists engaged by 3LO. Violent debates still continue as to whether this or that item should be continued, but the management may be fortified in their choice by the fact that over such an item as Alberto Zelman's violin concerto opinions differed to the extent that one listener wrote to a paper, pointing out that it was stuff like that which was killing the radio and making it so unpopular, while another wrote that the thing had given him the purest pleasure he had yet experienced on the air. "Give us more of the same," he wrote, "and we will bless you," or words to that effect.

Radio Personality.

I have often heard people say that so gripping is the personality of a radio artist that they are sure they would recognise him or her if they saw him. It is true that we conjure up a mental picture of people whose voices we hear on the radio. How far are we out in our reckoning? We may get as great a shock as one of my two admirers got when a paper stupidly published my photograph. "My God, no!" she said.

I have, in America and London, met authors whose books have left in my mind a vivid impression of their personalities and, consequently, their persons. In many cases I have been woefully disappointed.

In England, there has been conducted a most interesting competition. It might be repeated out here, though in our smaller communities the chance of recognition is greater. The test has been made of how near imagination comes to "bodying forth" the actual person. Photographs have been published in radio magazines of prominent radio artists, singers, players, talkers, and so on, and an invitation has been made to listeners to fit names to the pictures. Prizes are given for the nearest correct guess. I make a present of the idea to any radio magazine that cares to take it up.



A Radio Set for Xmas!
Farmer's 5-Valve Receiver
 Complete with all Accessories
 An Ideal Christmas Gift

A Christmas gift which will prove a wonderful source of pleasure and convenience not to one or two personally, but to the whole family! And this is not for a day, a week, or a month, but for many years. For the receiver, which is supplied in a handsome oak-stained cabinet—worthy of a prominent place in any home—is built substantially and will last indefinitely.

Sydney, Melbourne, Brisbane, Adelaide, are yours to command—all Australian stations with the exception of Perth, being received at loud speaker strength. Moreover, the instrument is ready for immediate operations—no delicate adjustments necessary—complete with all accessories, which include the following:—

- 5 "Radiotron" valves, UX201A.
- 1 Peto and Radford Accumulator.
- 2 "Ever-Ready" 60 "B" Batteries.
- 1 "Ever-Ready" "C" Battery.
- 1 "Amplion de Luxe" Speaker and Loud Speaker Cord.
- 1 Set of Aerial Equipment including 100 feet of Aerial Wire.
- 6 Insulators, 25 feet lead-in-wire.
- 1 Lead-in tube, lightning arrester.

Price, complete with all Accessories £40/-/-

FARMER'S, SYDNEY

BOX 497 AA, G.P.O.

WIRELESS DEPARTMENT, GROUND FLOOR

Edward Arnold Ltd.

Oxford & Crown Streets

FOR QUALITY AND SERVICE

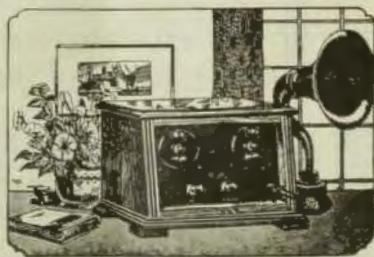
RADIO DEPARTMENT

Wireless Sets Complete

SAME PRICES FOR CASH OR TERMS

THE FAMOUS

A.W.A. RADIOLA IV C.



4 Valves £31/5/-
OR (62 6 DEPOSIT AND 9/- PER WEEK)

OUR OWN GUARANTEED WIRELESS SETS

3 Valve from £23/10/-

OR (DEPOSIT 47/6 AND 7/- PER WEEK)

Neutrodyne 5 Valve from £37/10/-

OR (DEPOSIT 85/- AND 10/- PER WEEK)

ALL ACCESSORIES

Speakers, Valves, Transformers, Condensers, etc., etc.

At Lowest Prices

Terms Given for Cash Prices

Only High Quality Goods Stocked

Talks with Humor

One of the commonest criticisms on wireless talks is that they are unduly solemn. Humor is admittedly a very difficult thing to put over. It "takes the air" badly, but surely speakers could infuse something of brightness into a talk on even a serious subject.

I have been reading lately a talk given by Lord Askwith, not the Earl of Oxford, but that Askwith who won the championship for breaking strikes down by battering strikers with soft answers. The talk is a model for B.L.O. to copy, for it treats of a subject which is never stale, and which is always being refreshed by tributary streams—I mean schoolboy "howlers."

If ever B.L.O. can inveigle Mr. Frank Tate, the director of Education in Victoria, to giving a wireless talk, his yarns will convulse Australia from Tasmania to the Gulf. Some of Lord Askwith's collection of schoolboy mistakes are amusing enough.

"The destruction of Pompeii," wrote one hopeful, "is generally attributed to the overflow of saliva from the Vatican." The community in sound between "lava" and "saliva" was too great. A boy asked to state the origin of Kaiser, confused two things when he wrote: Kaiser is derived from a hole in Iceland which gives out hot gas."

One of the most amusing was an answer given by a candidate mother in a school for mothers. She gave the following rule for using a feeding-bottle:

"When the baby is done drinking, it must be unscrewed and laid in a cool place under the hydrant. If the baby does not thrive on fresh milk, it should be boiled."

The boy who mixed up two ideas in his essay on the Battle of Hastings deserves honorable mention among the company of howlers.

"William the Conqueror ordered his archers to shoot at the thickest part of the English, so they shot upwards so that the arrows might fall on the Englishmen's heads." History furnishes the one with which I may fittingly conclude:—"Finally, James II. gave birth to a son and so the people turned him off the throne."

Announcement



Straight Line Frequency CONDENSER

NEW PRICES

- 00025 ~ 9'6
- 00035 ~ 10' -
- 0005 ~ 10'6

Radio Corporation of Australia Pty Ltd
 Registered Office, Directors and Works
 35 GEORGE STREET, SYDNEY
 New South Wales

TO THE RADIO SOCIETY

Dear People,

We are delighted to be able to announce considerable reductions on our "Advance" Straight Line Frequency Condensers. This has been made possible by additional plants and improved methods for these popular condensers resulting in higher production and the lowering of costs. We have decided to pass on to the Public these benefits by way of reduced prices which will be the same everywhere.

The same excellence of construction workmanship and the high quality of material as hitherto will be maintained, and there is no doubt they represent the best value obtainable anywhere.

Yours faithfully,

RADIO CORPORATION OF AUSTRALIA PTY. LTD.

Sole N.E.W. Distributors:

Fox & MacGillivray Ltd.

"Daily Telegraph" Buildings, King Street.

Atkins, McLean Ltd., National Buildings, 350 George Street.

ADVANCE
All Australian

**RADIO
PRODUCTS**

Is Shakespeare Popular with Listeners

IT is quite certain that every broadcasting manager has from time to time been tempted to do Shakespeare on the air, but his courage has failed him at the last moment. It is a difficult matter to sandwich Hamlet between a banjo solo and a mouth organ selection, and seeing every broadcasting programme is completely diversified it becomes quite a difficult matter to establish the correct atmosphere for Shakespeare. 2FC seem to have managed to overcome this difficulty recently, when they presented by co-operation with Mr. Alfred Gordon, the resident Polish actor, a presentation from Hamlet, giving excerpts of the most suitable parts for broadcasting. Mr. Gordon, who has conducted a series of performances of Hamlet in Sydney with marked success, was very confident of the result. He brought his company to the studio and gave a satisfactory performance. An appeal was made to listeners for their opinion. Officials at the studio were sceptical as to the result, but they were astonished at the response which was forthcoming from listeners representing the more intellectual section of the community, whose wishes of course must be considered. Looking through the file of letters, there is one from a listener in Parramatta which bears quoting in full:

"Dear Sir,—The Hamlet presentation on Friday night from radio standpoint was equal to Captain Hurley's Antaretic and Elephant Isle epic. They both stand in a class by themselves. Feeling tired and jaded after a long, hot, tiring day and late shopping night, I flung myself down in an easy chair, carelessly put on the 'phones, but just in time to hear the announcement that Mr. Gordon would give selections from Hamlet. Soon all sense of weariness had fled. I thrilled with Hamlet, wept with Ophelia, and laughed with the grave diggers—truly 'twas great."

HARKNESS REFLEX AND REINARTZ.

Back copies of "Wireless Weekly" for October 15 are now available. The Harkness Reflex and the Reinartz receivers were described in this issue.

Make this a "Radiokes" Christmas

SOME XMAS GIFT SUGGESTIONS FOR THE RADIO FAN—
THEY WILL GIVE PLEASURE THE WHOLE YEAR THROUGH

Guaranteed products which will not fail to give satisfaction and earn the lasting appreciation for the good taste of the donor.



The now World Famed "Radiokes" Coil Kit for use in the Browning Drake Circuit.

£2/2/- Will please him for all time.



Already exceedingly popular "Radiokes Bayer" Coil Kit; efficient, universal, compact and robust.

£1/6/- Makes an Ideal Gift



All come to you suitably and attractively packed ready for presentation.

All you need to do is to sign the dainty greeting card attached.



Genuine Radiokes Coil Kit for use in the Neutrodyne Circuit.

£1/12/6. Will make a gift the envy of his friends.

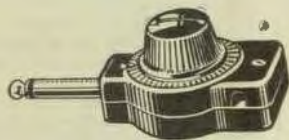
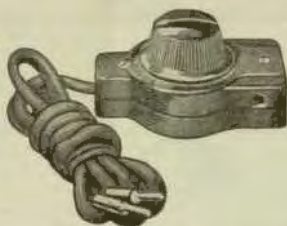
At All Good Radio Dealers

Wholesale Only:

Metropolitan Electric Co. Ltd.

27-29 KING STREET, SYDNEY

Bring Your Set UP-TO-DATE



No. 1419, RESISTANCE.

2 stage Amplifier £2/5/-

The only real advance claimed by the makers of this year's best Sets is improvement in tone performance. This improvement can be made in your present Set by simply adding the Centralab Modu-Plug. It replaces the loud speaker plug and gives any degree of tone volume, from a whisper to full strength, by simply turning the small knob on the plug. It reduces interfering noises and gives faithful reproduction.

No. 1400 RESISTANCE.

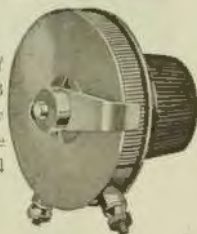
3 stage Amplifier £3/3/-

No. 1450 RESISTANCE.

Amplifier Kit £2/14/-



Do away with all out-of-date and inefficient methods of oscillation and volume control. Use CENTRALAB RADIOHMS. Incorporated in any radio circuit, they give improved efficiency and ease of control. Can be varied noiselessly from zero to maximum range, and are absolutely noiseless in operation.



	\$	s.	d.
No. 2 M. Radiohms	0	14	0
No. 50 M. Radiohms	0	14	0
No. 100 M. Radiohms	0	14	0
No. 200 M. Radiohms	0	14	6
No. 500 Modulators	0	14	6
No. 106 Variable Grid Leaks, without condensers	0	0	0
No. 107 Variable Grid Leaks, with No. 2035 condensers	0	10	6
No. 206 6 ohm Rheostat	0	9	0
No. 230 ohm Rheostat	0	9	0
No. 110 200 ohm Potentiometer	0	12	0
No. 111 400 ohm Potentiometer	0	13	6
Centralab Push Pull Battery Switch	0	3	6
Centralab Modulator Plug	0	18	0

IF YOUR DEALER DOES NOT YET STOCK THESE PARTS, WRITE TO US DIRECT

SOLE DISTRIBUTORS:

United Distributors Limited

72 Clarence Street, Sydney

343 Queen St., 27 Chesser St., 26 Queen St., Cr. Jervois Quay & Harris St., 66 Charles St.
 BRISBANE. ADELAIDE. PERTH. WELLINGTON, N.Z. LAUNCESTON, Tas.
 664 Bourke St., MELBOURNE.

Vincer-Minter Three Valve Receiver

(Continued from Page 19.)

on position and turn up the rheostat. Plug the headphones into the jack and gradually turn both dials.

Presently you will hear a station. Tune it to its maximum volume, then adjust the first rheostat to the most sensitive position. Now use the mid-geet neutralizing condenser on the

panel. As this condenser is tuned the signals will gradually increase and then the receiver will break into oscillation. Keep off this point always, just keep on the edge before oscillation takes place. The purity of reception is most pronounced, everyone will comment on this, and you yourself will be pleased with it.

At Marriekville all the local stations could be heard on the loud speaker with excellent strength. The

Inter-state stations were not heard to satisfaction, although Brisbane could be heard on the phone, but a background of 2BL was present.

Still we are satisfied that under winter conditions the Vincer-Minter would produce all the Interstate stations. Away from the shock excitation zone this receiver will be found most adaptable.

The valves play a most important part in this receiver. Recommended are DE5 B for radio frequency and detector and ADE5 for the amplifier. Cunningham valves are good, Cosser Point One will serve splendidly also.

A very good scheme would be the inclusion of a power valve in the last stage. Many power valves are available which will prove quite suitable.

A Remarkably Clear Speaker

PRICE 25/-



Equipped with a non-metal horn, the Western Electric Loud Speaker illustrated, reproduces broadcasting with a purity of tone superior to some loud speakers selling at many times the price.

Only a limited number are available, so if you would secure a **REMARKABLY CLEAR** Speaker at a price less than that charged for head receivers, place your order without delay.

STANDARD TELEPHONES AND CABLES

(AUSTRALASIA) LIMITED

Formerly

Western Electric Company (Australasia) Ltd.
191-4 CASTLEREAGH STREET, SYDNEY

CHRISTMAS is certainly the season for choral work in all its phases, from the majestic Oratorio to the familiar carol lustily sung in the Sunday schools throughout the Commonwealth. During this week 3LO will have several choirs broadcasting the old message of peace and goodwill, but few will be more welcome than Wesley Choir, whose work in this direction is so well known and keenly appreciated.

EMMCO SLOGAN COMPETITION.

We have been notified by the Electricity Meter Mfg. Co. Ltd., makers of the well-known Emmco parts, that the Slogan Competition which they are running has been extended to January 20th, 1927.

The Company received many letters from dealers in various parts of Australia, pointing out that the original closing date did not allow reasonable time for the entry forms to become widely circulated, and suggesting that the competition should be extended.

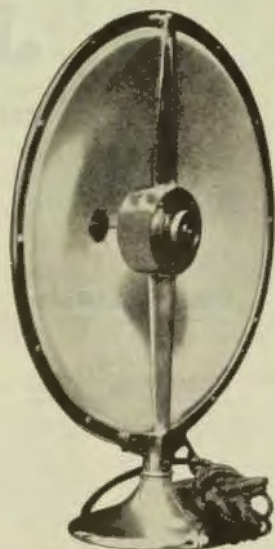
It will be remembered that the Slogan Competition provides for prizes to the extent of £45, and that the Slogan should be composed of not more than 5 words and should feature the word "Emmco."

Entries should reach the Company's Office, Australia Street, Camperdown, not later than January 20th, 1927.

"SFERAVOX"



For
Faithful and
Distortionless
Reproduction



£5-5-0

THE INCOMPARABLE CONE SPEAKER

In most existing instruments of a similar nature the design is such that distortion cannot be avoided and in this respect we would refer particularly to the differences arising in the forces acting either by attraction or by repulsion in the magnetic circuit and the magnitude of the current required to obtain sufficient volume, such differences resulting in very unfavourable conditions for the valves and the low frequency transformers of the receiver. Furthermore, diaphragm of an excessive size induce sound reverberations and this coupled with the causes quoted above, are all contributory to distortion and disagreeable tone reproduction.

The "SFERAVOX" Loud Speaker is an example of how these difficulties have been overcome.

Australian Representatives:

And at Melbourne, Perth, Brisbane
Auckland & Wellington, N.Z.

BROWN & DUREAU, Ltd.

Broughton House
Clarence St., SYDNEY

BURNS PHILP TOURS

JAVA

The Wonderland of the East

Famous Temples

Interesting People

Native Bazaars

Tea Gardens



Regular Monthly Sailings by the Favorite Liners—

“MARELLA” 7,375 Tons

“MALABAR” 5,000 Tons

Via the picturesque Torres Straits Route

Full particulars from

BURNS PHILP & CO. LTD.

BRIDGE STREET, SYDNEY

A Radio Church

REV. David Brandt, of Chalmers Presbyterian Church, whose services are broadcast fortnightly by Station 2BL, Sydney, says, "the aged and bedridden listen-in, and people in remote districts obtain a Presbyterian service twice a month. This means that when on ordinary occasions I preach to a few hundreds, on a broadcasting Sunday, I speak to many thousands. Let me give an idea of the size of a broadcast parish. I have had letters of thanks from Ipswich, Queensland; a station west of the Darling; Ailsa, near Warracknabeal, Victoria; Warrnambool in the western district of Victoria; Hobart, Tasmania; and Stratford, New Zealand. If one makes a circle taking in all these places, and then thinks of all the territory inside of the circle, it will give an idea of the number of those who hear the services.

"One woman in the west of Victoria writes:—"The whole family sat round the table; I played the hymns on the piano and we sang with you. We knelt at prayer-time." A Presbyterian, travelling by steamer from Brisbane to Sydney, wrote to me and said that on the Sunday at sea a loud speaker was placed on the deck and almost all the passengers sat round and followed the service from the beginning to the end." Truly these are wonderful days, and wireless gives us a great opportunity of reaching thousands."

THE INTERESTING SERIES of talks on "Art in Modern Life," now being given by Mrs. M. Callaway Mahood from 3L0 on Friday afternoons deal with interior decoration and the technique of decorative art in general. Mrs. Mahood has been well represented at Melbourne Art Exhibitions for the past eight years, being better known as Marguerite Callaway.

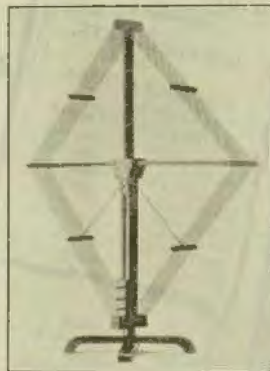
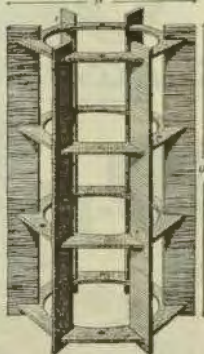
LITTLE CLIFTON, who had been taken into the country for a day's outing, saw a spider spinning a web between two tall weeds.

"Hey, dad," he yelled, "come up over here and see this bug putting up a wireless!"

Grodan Radio Productions



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"Anti-Loss"
COIL FORMER



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Any Wire — Any Gauge — Wind as you Wish
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Extract from Melb Argus
December 24

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 in a Supreme Court suit taken out by the Loane Corp. Wireless Pty. Ltd., Melbourne It was allowed on behalf of the plaintiff.

Mr. Justice Mann said The design of defendant's machine is 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 was noticed abroad, 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 Courts 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 served legal notice and proceedings taken without delay. Any information from the public of imitations will be appreciated.

ENTERTAINS EVERYWHERE.

The compact, convenient "PORTA" SET is simplicity itself. Simply open the lid and automatically the set will operate to perfection. It is absolutely self-contained, complete with all accessories, including the speaker. No aerial, no earth. Terms arranged. Write for literature or call and hear the splendid "PORTA."

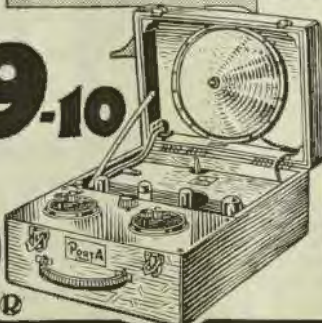
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MUSIC IN A MOMENT—JUST OPEN THE LID.

N.S.W. Representative:
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Manufacturers' Products Sales Co.,
Challis House SYDNEY.



The **PINNACLE**
"PORTA"
SELF CONTAINED RADIO SET

£ **39-10**



At all
Radio
Stores

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.S.C. (Pennant Hills).—Q. 1: I have a five-valve Neutrodyne set, and since 2FC have come down to 443 metres, it is impossible to receive Interstate stations. What can I do? Do you advise another circuit? If so, what circuit? Would a split secondary remove the trouble, as in your issue of December 10?

A. 1: The Neutrodyne is a most selective set, and should overcome the difficulty of interference from 2FC. Shorten your aerial down to between 25 and 40 feet over all and use a counterpoise instead of the earth.

A.H.T. (Kurrajong).—Q. 1: I have a four-valve Triode Audio Receiver, and when I turn the radio valve off I can hear sound on the three valves. What is the cause of this?

A. 1: This is quite usual. The valve itself and its associated wiring really act as a condenser, which thereby passes energy through to the detector.

Q. 2: Would the Browning Drake Receiver have any advantage over this set?

A. 2: This is something I really cannot tell you as from what you say of the result with your present receiver the Browning Drake would be of no advantage to you. Many thanks for your enlightening remarks.

R.A.F. (Campbell).—Q. 1: Re Harkness Receiver. I could not obtain Eln. Furness, so had to get 2½ in. Would I have to reduce number of turns of wire?

A. 1: The 2½ in. formers are quite alright without altering the wiring in any way.

Q. 2: Could a 25 volt Ampden Carbonised be used with two Cosmor Point One valves and get the best results?

A. 2: Yes, the Carbonised are very suitable indeed for the valves you mention.

Q. 3: I have one 3½ to 1 Jefferson transformer for last stage. Would a 6 to 1 transformer give better results than a 2½ to 1 in first stage, or would the latter be as good?

A. 3: The present transformers you have are quite satisfactory.

Q. 4: What is the best length of aerial for above receiver?

A. 4: Between 30 and 75 feet would be suitable.

M.M.A. (Kurri Kurri).—Q. 1: I have four Elix "B" batteries, which have 24 volts per battery, and the charging rate of each battery is a quarter of an amp. I charge two batteries at the one time in series, with the 2 amp New Model Tannar charger, I use a 40 watt lamp 240 volt when charging, and it takes me 200 hours to bring these batteries to half charge, charging two at the time with a 80 watt lamp. The batteries are in good condition, as they are not six months old, they are not sulphated, nor shorting anywhere, as I have examined them thoroughly.

A. 1: The 240 volt lamp is of the correct size to deliver a quarter of an amp of current to the terminals of your battery connected in the manner described. Make sure that all your contacts are clean and try increasing the size of lamp to 100 watt, relying on the resistance of the battery to choke back the excess.

E.L.B. (Auburn).—Q. 1: I have a conveniently built four-valve receiver made from the 100 parts and caps on Inlay. It works quite fairly well. The set functions well in items that employ the speaking voice, but in some

musical items the reproduction is very scratchy and distorted. Should I expect undistorted music at any pitch and volume? Or shall I always have a rattle when some notes depend upon a top B flat?

A. 1: There may be many contributory reasons for this. Perhaps, were you to employ a "C" battery, sweeter reception would be the result, or again, it may be that the loud speaker you have will not accept the volume the set is pushing into it. Your combination of transformers will also give rise to this effect. It is always advisable to use two transformers of the same make in any set, where two stages of transformer coupled audio frequency is desired. There are two means of overcoming this. One is to leave the set as it is and install a Mastracan Tone. Further according to the directions accompanying this article. This is perhaps a simpler method. Again, you may remove the first stage of transformer coupled audio frequency, and substitute one stage of resistance coupled amplification in its place. Of course, pick the best transformer for the set.

R.S.S. (Frisland).—Q. 1: I recently obtained a Browning Drake kit from Melbourne, and it was accompanied by a wiring diagram for four coils bright emitter valves. Wishing to put the kit into a three-valve dual emitter set, I am in need of getting a suitable circuit for these valves?

A. 1: The circuit enclosed in the kit is quite suitable for either bright emitter or dual emitter valves.

Q. 2: What is the best type of neutralising condenser to use in this set?

A. 2: Any well known advertised make will suit.

Q. 3: I have a 48 plate Warner condenser and a 23 plate R.G.E. condenser. Are they suitable?

A. 3: No. I would rather see you employ two 6000 condensers.

W.H. (Mayfield).—Q. 1: I have converted my old type Tannar into an "A" or "B" battery charger according to the sketch in "Wireless Weekly" of 10/9/26. You mention in your sketch that the leads from A.C. mains (for "B" battery charging) may have to be reversed. I have tried same. One way the resistance lamps in series is brighter than the other way. I used the brighter connection and my bulbs has blown out. Would that be the cause and why?

A. 1: The correct potential of the mains will give a better flow and thereby increase the glow of the lamp. A lamp is liable to a size of entertainment when a magnet has full your bulb is large enough to pass the current. Try a bigger one.

A.J.M. (Cunawong).—Q. 1: I have a six-valve receiving set, which has been giving me a nice entertainment when a magnet has full your results until lately. It is equipped with Radiotron HV 20A valves, six 22½ volt dry batteries (Durpas) and a six volt accumulator battery. This machine will be giving me a nice entertainment when a magnet has full your into the music, and this will grow louder until it becomes a roar, outputting all music.

A. 2: This seems to me to be brought about by the closeness of the speaker to the batteries. Do you find that the sound disappears when the speaker is tipped up, that is, virtually, can you pour the sound out of the speaker? If so, place your speaker in a position away from the batteries. Run

down "B" batteries also cause this. If your "B" batteries are old, renew them. The switch wiring is wrong. Install a lightning arrester.

S.O. (Hamilton).—Q. 1: I would be pleased to know if I could use the coils described in the Extraordinary One-Valve Set, in a four-valve set employing one stage radio, detector, and two audios. Will I be able to tune from 2FC to 2FC, using this number of turns (20 to 30)? If so, please tell me the number of turns required.

A. 1: The one-valve set described is essentially a one-valve set and is not suitable for any other purpose. If you desire a four-valve set why not build the Browning Drake? Or add a further stage of audio frequency to the receiver described in this issue.

J.T.R. (Terahia).—Q. 1: Is an aerial 60 feet long suitable for the Extraordinary One-Valve?

A. 1: In your locality another 20 feet added to your existing aerial would not do any harm and will give you 2FC a little more loudly.

Q. 2: Is the Gordan Antioch former suitable for the windings of this set?

A. 2: Yes, quite suitable. The arrangement of fixed condensers suggested by yourself is quite alright.

T.H.B. (Ipawhaki).—Q. 1: I get interference from my next door neighbour's radio receiving when I tune in. How can I overcome this?

A. 1: Use a counterpoise (instead of an aerial, and in your case run your aerial parallel to your neighbour's).

V.N.T. (Eastwood).—Q. 1: Will you please let me know if I would be able to get good speaker strength from the Harkness Reflex on 2HL, 2KY, and 2GB, in my locality, which is three miles air line from 2FC?

A. 1: I should think you would be able to do this.

Q. 2: Will you please tell me what valve gives the most volume—Radiotron 20A or the Cosmor Point One?

A. 2: This is a matter of opinion, both valves being very good indeed.

Q. 3: I have a C.A.V. accumulator, 6 volt, 24 hours initial capacity, how many hours will it run in a five valve set using the Radiotron 20A valves?

A. 3: Approximately two hours.

A.H. (Summer Hill).—Q. 1: I have a five valve Neutrodyne, and previously I used these honeycomb coils for Farmer's mid wavelength 100-125-150. What coils would I require now they are down to 442?

A. 1: You should have no necessity to worry about the Honeycomb coils now at all, as the wavelength of Farmer's has now reached within the scope of the Neutrodyne. If you still desire to use only three valves for this station, use 50, 50, 50, turn coils in this order.

Q. 2: I have had my Neutrodyne only four months, since it is not more than 2½ hours nightly it has kept a record of the hours nightly, and my "B" battery is worn out. Should they not have lasted longer?

A. 2: I really couldn't say. Are you using a "C" battery? A "B" battery saves "B" battery current to a very marked extent. Again, I should advise you to stand your "B" batteries on end and not lay them flat. Keep them in a cool place.

Q. 3: I have now installed new "B" batteries and cannot make out what is wrong, as I

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12/-

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TYPE D.V.5—Takes 5 volts at 1 amp. on filament . . 12/- each
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—13/6 each

Plate Voltage, 16-22½ volts, Detector.

Plate Voltage, 60-120 volts, used as an Amplifier.

Both Types fit Standard American Socket.

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(Factory Representatives)

cannot get any results from my loud speaker jack. At the same time I can plug in to my phones and get splendid reception.

A. 3: Either the wiring has come loose from one of your jack connections, or a transformer has broken down. Test the continuity, particularly the primaries.

J.W.W. (Milton).—Q. 1: Would you kindly tell me what brand of vario-coupler was actually used in the construction of the Old Reliable Receiver in "Wireless Weekly," of October 10, 1926?

A. 1: The Grodan vario-coupler, which may be obtained from any of the advertisers in "Wireless Weekly."

J.E.K. (Wimples).—Q. 1: I find that the KFO4 is splendid on the local stations, but experience much difficulty in listening to Interstate stations at loud speaker volume. Phone strength is received from KGO, BLD, and SCL. The tendency of the receiver is to oscillate violently.

A. 1: This receiver should not oscillate violently. Bear in mind that Summer conditions are not nearly so conducive to long distance results as the Winter period. Call and see W. Harry Wiles, Goulburn Street, and discuss this receiver.

Q. 2: I have two burnt out transformers. Can they be repaired or are they useful for any purpose whatever?

A. 2: A transformer breaks down in the primary windings generally. I don't know of any firm who cares for re-winding these components, in fact the cost of re-winding a primary would not warrant the job. Keep them by you as liquor on "W.W." will show a receiver designed for choke amplification for which the secondary of these transformers will be suitable.

A.N.R. (Wallenbom).—Q. 1: I am desirous of building a Neutrodyne, and am anxious to know if the enclosed circuit is correct. Can I still retain high resistance, and by pass condenser as shown.

A. 1: Yes.

Q. 2: Will this receiver give loud speaker results from 2G11 in daylight. We are 180 miles airline from Sydney.

A. 2: I am afraid that you are too sanguine. You may be able to get phone strength.

E.L. (Southgate).—Q. 1: Please let me know if I get essence of lemon bottles and out of the necks, will they suit instead of specimen tubes for an accumulator "B" battery.

A. 1: This depends on the size of bottles. If they are big enough to take the electrodes they will do the job nicely.

Q. 2: My four valve (W.W. 6/8/26) was working well until last night when it simply refused to go. Why is this?

A. 2: There may be many reasons for this. Perhaps a transformer primary has broken down. Test the fixed condensers also.

Q. 3: What are the correct coils for various stations?

A. 3: These are given in the article on 6/8/26.

Q. 4: How can I cut out whistling? I don't like it!

A. 4: What kind of whistling? Is it a shrill scream which is maintained continuously throughout all wavelengths? If so, try reversing the primary connections of one transformer. Or install a Macfarlane Tone Filter.

F. J. S. (Canterbury).—
Q: Where can I obtain a circuit of an Armstrong four-valve receiver?

A: See "W.W." 7/8/26.

BRIEF REPLIES:—

H. C. (Chatswood), H. C. A. (Wahroonga):
Interflow Radio and Electrical Co., 48 Pitt Street, Sydney.

W.M. (Hurstville): Tell me if your mounting plates are all connected within the fixed plates when receiving 2RL. If so add a few more turns to the aerial coil.

J. F. W. (Ashfield): Take it into Messrs. Glynnes and Coles, Pitt Street, near Railway.

F. M. (Arncliffe): Evidently the crystal detector is at fault.

(Continued on Page 53)

Clear Out Your Antiques

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Buy Radio



Responsiveness to your lightest touch . . . ordinary dials seem clumsier than ever after one experience with EMMCO vernier dials. They are built to meet modern conditions and the demands of modern set-builders.

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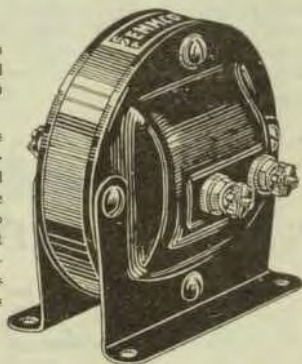
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Go right over your set.

Old parts, worn out with long and faithful service. Poor parts showing the first signs of their inferiority. Weak parts giving indifferent performance. Clear them all out. Replace them with Emmcos and see . . . hear . . . feel the difference. The cost is little. The result, your old radio set made good as new.

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Every part is tested, retested and tested again. There can be no failure. It must be perfect. That is how it reaches you.

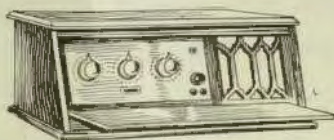


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"KING QUALITY" NEUTRODYNE SET

£60

A high quality 5-Valve Broadcast Receiver equipped with built-in Loud Speaker and correctly designed tonal chamber, capable of producing perfect reception in any reasonable volume desired—very sharp tuning. Wavelength range 200 to 550 metres. Sold complete with valves, batteries and all accessories ready for immediate installation.
Price £60

Deferred payments—£6 deposit, balance 23/- per week to be completed within 12 months.

"D. J. STANDARD-4"

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Powerful and highly selective, a splendid Christmas Gift—all Interstate stations (excluding Perth) on Loud Speaker. Absolutely complete, no extras to buy, for £25

Deferred payments, deposit £2/10/-, bal. 9/6 week

DAVID JONES'

Readers Queries

(Continued from Page 52.)

T.R. (Southerton): Many thanks. Glad to hear of your results. The system you explain has already been published in our "Radio" month 280.

C. E. H. (Annandale): See reply to F. M. (Areccliffe).

J. B. (Granville): The Cosmo Point One valve does not light up. Take your receiver to a friend and test on his aerial and with his batteries.

P. F. (Yrmon): Can't understand it. Why not take the set along to one of our advertisers, who will put it in order.

W. S. (Yashina, Q.1): In your locality the coupler you have should be suitable. Connect aerial and grid to top of coil and earth and F to bottom omitting the primary altogether.

F. J. M. (Woe Waa): Stick to your present set. "The devil you know," etc.

F. M. (Milton's Point): Better see a friend who can check over your work. Something is seriously wrong.

H. J. M. (Vibolo, Q.1): Fading is something to be expected and we have no control over it in any way. You would be better off with Amalgam carburels as an A battery. They will last longer. It is inadvisable to run five valves on dry cells.

K. E. (Yarrowayek): The stations you heard were JOAK and JOCK Japan. The B batteries are run down, hence your trouble.

C. D. (Granville): Ship along and see Messrs. Harringtons Ltd.

Down to Davy Jones' Locker with 4QG

(Continued from Page 39.)

that he was looking at the sky. His suit had promptly filled with air, and he rose like a bubble.

Mr. Woodland was quite eager to try again, but after a consultation, it was decided that, in order that the broadcasting should be as effective as possible, Mr. Stevens should go down in the evening with the microphone and attempt to get through to the world an account of what he saw. Although he did his part splendidly, and although the transmission arrangements were A1, the noise of the air-bubbles escaping from the valve and the rhythmic beat of the air-pump "jammed" his speech to such an extent that it was difficult to distinguish his words. Nevertheless, the whole transmission, which lasted from 7.30 to 8, was very good, and is believed to have been listened to with breathless interest all over Australasia, and, if listeners did not get all the thrills that the diver tried to give them from the bottom of the shark-infested bay, they certainly gained a deal of information about the art of diving and its difficulties.

Announcement!

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ELECTRICAL CHARACTERISTICS

No. 41—Ratio 3.75 to 1

Designed for operation with all standard tubes

- 1.—Ratio of secondary to primary turns, 3.75 to 1.
- 2.—Useful tone frequency range, 60 5000 cycles.
- 3.—Allowable current on each winding, 10 milli-amperes.
- 4.—Test voltage between primary and secondary, between primary, secondary and ground, 500 volts.
- 5.—Maximum operating voltage in conjunction with tube, 300 volts.
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Primary, 1000 ohms (approx).
Secondary, 5000 ohms (approx).

No. 41 A.F. . . .

New Price:
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Jefferson Amplifying Transformers have gained an enviable reputation for audibility and amplifying power. In tens of thousands of receiving sets they are insuring 100% amplification—increased range, super-sensitivity, and the elimination of howling and distortion.

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The Mauricau Tone Purifier and Static Reducer smooths out the harsh, metallic notes of your receiver, giving beautifully clear tonal quality.

Converts your receiver into a mellow toned musical instrument. Easily fitted to any receiver.

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If you are not satisfied with the results from your present set, let us re-wire it to our **Supertorsoidal Pipe**—the results will astound you.

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The Only Wave Trap (Meter) . . 15.-



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Wherever you go"
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It works everywhere—mountain, sea, or city.

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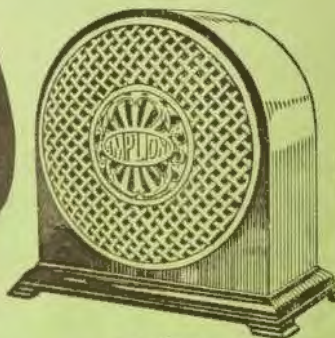
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