

Ray Allsop and Don. B. Knock — Technical Editors

# Wireless Weekly

3<sup>d</sup>

INCORPORATING "RADIO IN AUSTRALIA & NEW ZEALAND"

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# PHILIPS

## The First Television Drama

Dion Boucicault  
on Broadcasting

Aerials

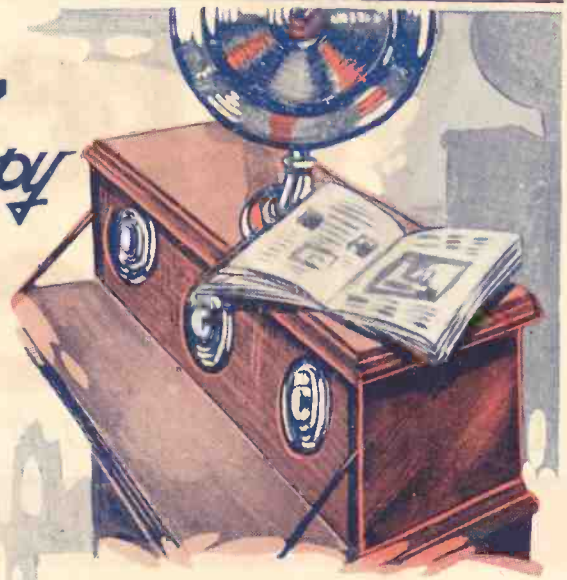
By D. B. Knock

Super-Power  
Broadcasting

By Ray Allsop

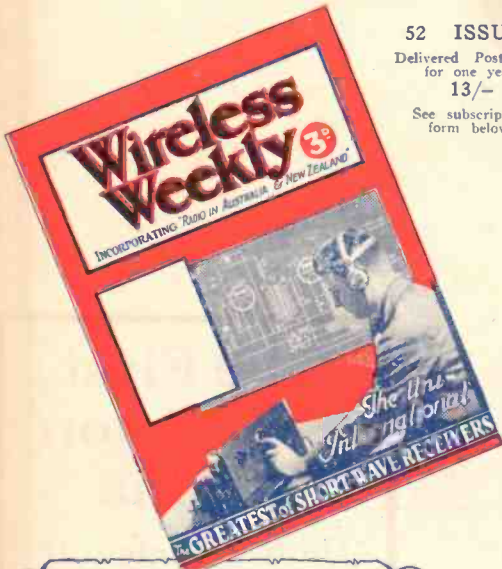
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of  
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Weekly** 3<sup>d</sup>



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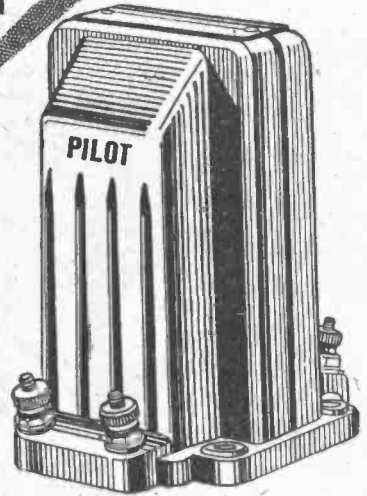
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## "PASSING BY"

*"The artists and Mr. Pim, with hearts full of love, will pass by. Let the curtain fall; the Comedy is over." Mr. Dion Boucicault, through a prolonged ovation which rattled 2BL's loud speaker for nearly three minutes, thus spoke his farewell to acting in Australia. "You have given me some wonderful memories; and I thank you from the bottom of my heart," said Irene Vanbrugh. "Good night." The following interview contains Mr. Boucicault's ideas on broadcasting, which are extremely interesting in view of the recent broadcasting of "Mr. Pim Passes By."*

FOR the first time in his otherwise amazingly varied and eventful life Mr. Dion Boucicault was heard over the air last Wednesday night when his company broadcast the charming comedy "Mr. Pim Passes By." Not even the B.B.C. or the Continental stations; not even the American stations, had been able to persuade this Grand Old Man of the stage to appear before the microphone. It was triumph. It was victory for Australian broadcasting.

Yet there was a sadness about this broadcast. Why has Mr. Boucicault never before broadcast? He is probably the last famous identity to succumb to the insidious microphone. Something "passed by" with his first words and final farewells. Had he held out this long as a protest from a bygone and almost forgotten age? Could anyone be so charmingly sentimental in this blatant age?

One reflected on these things at the stage door while waiting for the end of the first act. We were there to meet the Master by special telephonic arrangement. The time came. We were led through a maze of corridors into a hallway, where we were met by a tiny old bewhiskered gentleman, frock-coated and striped trousered, holding an old panama hat, a stick, and a property letter in his left hand. In fact, Mr. Pim, Dion Boucicault, improbably.

He held out his right hand and pronounced our name carefully, leading us into a dressing room, on the door of which was tacked an envelope marked "Dion Boucicault, Esq." "Now," he said in the clipped, exact English of another period, "about what do you wish to see me?"

The stage properties, the touched-up eyebrows, the venerable white whiskers, and the false cranium gave us the impression of a breathing piece of delicate china. An indefinable impression of fineness. Of what did we wish him to speak? We cleared our throat and explained that we understood he had never broadcast before in any country. Had he any objection to broadcasting? If so, on what grounds?

"I don't know," said Mr. Pim, or, possibly, Mr. Boucicault. "I don't know. I haven't been interested. That is all."

"You see," we pursued, "we thought you might have had some prejudice against the new invention."

"Not at all," he replied, "Williamson's asked me if I would do it, and I agreed. That is all. I understand that they put some kind of instrument in the theatre. We hadn't to make any alterations in our production, had we?"

We assured Mr. Boucicault or Mr. Pim (we are not sure which at the moment) that there had been no necessity for any change in the manner of acting, and the talk drifted to the Melbourne underworld, the Americanisation of Sydney, and to the charming atmosphere of Chicago, where Mr. Boucicault was in the habit of walking hotelwards from



Mr. Dion Boucicault himself. The interview was obtained while Mr. Boucicault was in the guise of "Mr. Pim," with confusing results for the interviewer.

the night performance with a revolver in his pocket. It seemed futile to attempt to interest this Mid-Victorian personality in the intricacies of broadcasting. He mentioned that Lady Sheffield had died, and recalled history. We said that many great people were dying this year. Only to-night there were reports of Tex Rickard's death. "Who?" asked Mr. Pim. "Tex Rickard, the great American promoter," we said. "Rickard!" exclaimed Mr. Pim. "Do you call HIM a great man? A BOXING PROMOTER!"

We observed that it was strange that Mr. Boucicault had not taken any interest in broadcasting. He said, "No. It always bored me. I have only listened once—that was to Sir Oliver Lodge. He spoke on the Future after Death, or some such thing, and I was BORED. I remember; I was offered a large sum in London to broadcast; but I was not interested. My wife (Irene Vanbrugh), now that I think of it, spoke to London from a roof garden somewhere in Sydney, in company with Hinkler, the aviator. But I could never see any use in broadcasting. It is never what it attempts to reproduce."

We suggested that the farmers and population of the country towns in New South Wales found broadcasting extremely interesting.

"Yes," said Mr. Pim, "I suppose, in cases where people have very little amusement, broadcasting would prove very useful." We said, "And they appreciate it, too. You have no idea how many personal letters of thanks

are received by the companies every week. Now, the broadcasting of 'Mr. Pim Passes By' is sure to bring in hundreds and hundreds of letters from all over Australia." "Indeed," said Mr. Pim, "I had no idea."

We talked of future plans. Mr. Boucicault was going to New Zealand. He will come back to Sydney, and embark for South Africa, where he will avoid the English winter. No! he would not produce any more plays when he returned to Sydney; although there had been some talk of a season of Barrie and Milne. We asked whether he would come back to Australia later on. "Certainly," he said. "If I don't produce anything, I shall at least come back to see some very old and dear Australian friends. But that is a long way ahead. I shall be seventy in May." He smiled. "The allotted span, you see; and it would be almost imprudent to plan very far ahead." This was charming and graceful; but it embarrassed us; and we began to talk again of broadcasting. "You see, it's a wonderful invention," we said, somewhat fatuously.

"You can never supersede human effort," said Mr. Pim. "Have you seen this-er-Talking Nonsense?" "The Talkies? Yes," we answered. "What did you think of them? There's a man comes out to the front of the screen and sings to his mother. Bah!" "They will appeal to many people," we suggested. "Not for long," said Mr. Pim. "They bored me. You can never destroy the personal note. When the film industry began there were many good things done. There was a film in which the storming of the walls of Jericho or some such place was shown. That was very good. For huge action-scenes the films are quite good. But when it comes to character—you see, the modern play has little dramatic action. It is mostly dialogue and character sketching. But the films can't show this—they only display superficial ideas. They lack the personal note. Ah, no! The stage has nothing to fear from the new inventions. They said, when Melba began recording, that no one would go to opera. But the gramophone added to opera attendances. So nothing can hurt the stage; and nothing can take its place."

This was as much as we could get Mr. Pim, or perhaps, Mr. Boucicault, to say about radio. How could he say more. He wasn't interested. For him Radio and Television and the Talking Films are things of no moment. Mr. Pim, or Mr. Boucicault (we are absolutely uncertain which), is a charming little breathing-china gentleman. His views on radio are the views of eighteen-year-old adolescence on a new style of clock-work trains, or, on second thoughts, perhaps they are the views of a travelled, cultured gentleman, whose profound experience has left him free of the illusions which befog the present striving, inventing, bustling generation.

# BETWEEN YOU AND ME AND THE MICROPHONE

## Fortissimo

SINCE the last issue we have gained still further impressions of artistic poses before the microphone. Mr. Wilfrid Thomas, the 2FC singer, should be an accomplished fencer. His theory of broadcasting is that the voice must be moved to and from the mike to get the effect. It is not extraordinary to see him make a three-foot lunge at the defenceless instrument to register a soft pianissimo, while, with a particularly full fortissimo he thinks nothing of turning his back. But Mike understands.



## Listening to Themselves

IT is also a very peculiar thing to notice that each Announcer holds his left hand to his ear while speaking, or reading, at the desk. It has been explained that artists sometimes wish to listen to themselves. The reason for this has NOT been explained; but the fact remains that if the artist DOES wish to listen to himself or herself holding the left hand to the left ear allows him or her to do so.

## "Ullo, Sydnee!"

STATION 2BL has received many congratulations for the successful relay of ANE, Java. Mr. Allsop and others concerned were very pleased. We were in the 2BL control room when the programme came through. "Quick," said Mr. Kirke, "get Dr. Vilnits, he can translate for us." Dr. Vilnits, the young round-the-world linguist, came in, and we listened for the call sign and announcements. Getting an instant translation of a foreign station is to broadcasting as a "scoop" is to a newspaper. But there was to be no scoop. "Ullo Sydnee! Ullo Sydnee! Java Dutch East Indie calleeng you, 2ME." For once the 2BL staff was dissatisfied with the English language. But the music soothed them.

## Skeleton Speaker

DR. JULIUS DE VILNITS told us that in a certain Eastern station the loud-speaker is fitted into a human skeleton. The bones of the torso are draped, and the music issues from a trumpet held to the bony mouth. We have heard of more gruesome things; but we can't remember where. Still, the idea would associate itself with many symbols; for instance, in the case of "dead" programmes.



## Never Opportunited

SPEAKING of an American radio actress, who, at eighteen, has just found "an opportunity to release her delightful scream," an American journalist remarks: "She has never emoted behind the footlights." The reason is, probably, that she was never opportunited to do so.

## Drew a Bead on Mike

AN uncanny reverberation in an American studio was eventually traced to the beads worn by the studio pianist. The microphone picked up a note in pitch with these beads, and sent the vibrations over the air.

## RADIO TRAGEDY---NO. 1

*I once was a Radio Fan,  
And I lost my heart to a man,  
Who sang very equivoaltee,  
"O, for the Wings of a Bee!"*

*When he sang in the evening tide,  
"Alice, Where Art Thou?" I cried—  
His voice was so youthful and clear:  
I answered: "Thine Alice is here!"*

*I loved him most frightfully much—  
Our love was so passionate—such  
As you've often heard people eatot  
As the union of soul with soul.*

*But quick to extinguish the flame,  
The "Wireless Weekly" came,  
And, with a dull, horrified stare,  
I beheld my love's photograph there.*

*He was bald, with long ears, like an ass;  
His mouth was well formed—to store  
gas;  
His eyes seemed to float among tears—  
And his nose was as long as his ears.*

*My set no more "Hullo" will call,  
I don't read your paper at all;  
And I hate to remember, young man,  
That I once was a radio fan.*

## On Her Dial!

THE Eucharistic Congress was responsible for a dear old lady's telephone call to 2FC: "Can you tell me," she asked, "how to find 2FC on my dial?" To some people this might have proved a "facer," but 2FC were able to give the necessary information.

## Voice of Intoxication!

THE New South Wales Broadcasting Company employed a man with an Oxford education and accent, who was also the ex-champion amateur light-weight English boxer, to broadcast from the Stadium for 2BL. Enlightened Australian criticism has disposed of his voice as "the voice of intoxication," and of his boxing knowledge as "very poor." In fact, the Australian public seems a little hurt that Oxford has failed to study the requirements of the Australian public as to its boxing announcers; and, for ourselves, we feel that Oxford is behind the times. Look at the American Universities!

## Hobbs a Wily Bird

STATION 2BL has received many comments from a New Zealand listener: "I have had a little argument here in connection with a cricket broadcast which I think I heard from your broadcasting station on the night of December 7. Portion of the remarks heard was as follows: 'Oh, I thought Hobbs was lbw, but Hobbs is too wily a bird for that.' The time was approximately 8.30 p.m., Australian time. Would it be possible for you to inform me what was being broadcast at the time?" Curiously enough, this was one of the impromptu announcers in the Radio Elsteddof, describing Hobbs making a century. This is just one more instance of the many arguments that arise almost daily over radio transmissions.

## Tweeny's Tiffs

A MAYFAIR hostess believes that statistics—if someone would only compile them—would show that the petty quarrels for which the servants' halls have been notorious are rapidly diminishing. "The Tweeney," says Lady Ossulston, "is far too enthralled by radio talks to take her former spiteful pleasure in sitting in the lady's maid's place at the right of the butler—and if she did the lady's maid would not brood long over her wrongs—once the Savoy bands started playing."



## Don't Know Any Better

ZILATA KALMIKOFF was 'celloing during the afternoon session. "May we look through the window?" we asked Eric Bessemer, who was controlling the control room, "or would it embarrass Miss er-er?" "Oh, no," he replied, "you can't make fast women blush." "Agreed, as to the proposition," we said, "but where is the application?" "Look at her name," he said, "she's absolutely Russian!" We are sorry to have to repeat this; but, of course, they don't know any better down at 2BL.

## On the Way

ASSUMING that the impulses sent out by KFI's transmitter when it first went on the air on April 16, 1922, are still travelling, Lyman Packard, KFI technician, with the aid of a slide rule and many sheets of paper, has figured that the first word spoken, travelling at the rate of 186,000 miles per second, is now more than 225,030,668,000,000 miles into the ether.

## Safety Valve Words

SOMEbody figures that broadcasting has added about 500 words to the average radio fan's vocabulary. Only 500?

## Interdenominational Sweep

STATION 2BL has received three shillings in cash from an anonymous listener to be given to some Church in Sydney. The names of all 2BL Churches were placed in a hat; and the winner is the Newtown Congregational Church. The money is being sent to the Rev. Mearns Massey, of that church. But it took radio to engage the various denominational churches in such a thing as a sweep.



## Trying To?

THE New York "Telegram" hardly realised the truth of its statement when it published the following paragraph in a recent issue: "The Postmaster-General of Australia is now trying to superintend the A class broadcasting and relay stations around there on the other side of the world."

# THE FIRST TELEVISION DRAMA

WHEN WGY, the pioneer in the radio drama, presented the first drama by television, three portable cameras or transmitters were used, one each for two characters in the drama and a third camera for "props" and hands. Because of the present limitations of the art, only the faces of the actors can be shown, but action was put into the performance by introducing the hands of a man and of a woman, using revolvers, cigarettes, keys, rings, mask, and numerous other things.



watt lamp as a light source, and two smaller cabinets each housing a photo-electric tube with amplifier. All three cabinets are mounted on tripods, enabling the operator to raise, lower, or tilt the light source to suit the height or position of the performer.

In the presentation of "The Queen's Messenger," three cameras were used—a camera for each of the characters in the drama, and a third for the introduction of "props." and other visual effects.

The actual adaptation of the television apparatus to the play was made by Mortimer Stewart, well known as the producer and director of a series of radio plays from WGY last year, and numerous dramatic offerings from the New York stations of the National Broadcasting Company. Mr. Stewart's problem was not only the development of a technique for a new dramatic form, but he

STATION WGY, Schenectady, recently established itself as the first station anywhere to present a drama by television, transmitting picture and voice simultaneously on separate radio channels. Those local listeners equipped with suitable receivers for vision and sound were able to see and hear the actors in the play, though miles separated them from the actual performance. Drama by radio was made possible by recent development of a simplified and portable television transmitter or camera by Dr. E. F. W. Alexanderson, consulting engineer of the General Electric Company and chief consulting engineer of the Radio Corporation of America.

Martin P. Rice, manager of broadcasting for the General Electric Company, explained that in presenting the drama through the medium of television, WGY was co-operating with the engineers in the development of a studio technique well in advance of the time when it will be practical to offer television to the public as a finished production. Such practical application affords the only reliable method of determining the future possibilities as well as the limitations of television.

"WGY was the pioneer broadcasting station in the field of radio drama," he stated, "and it is fitting that we, in co-operation with Dr. Alexanderson, should thus early investigate the adaptation of this new branch of the radio art to the drama. Three years ago scientists in many countries began a thorough investigation of television and its possibilities. We have shown what Dr. Alexanderson has accomplished, and, in broadcasting a one-act play by television, we have endeavored to point out one of the very interesting applications of the new art. When television has reached that stage of development where 'sight' signals may be received as reliably as 'sound' signals are now received as reliably, hopes to be prepared to carry the image as well as the voice of the actor to thousands not heretofore privileged to enjoy the drama."

The play was "The Queen's Messenger," a one-act drama, written thirty years ago by J Hartley Manners. The television version was the same in every respect as the stage offering, but many new problems in dramatic technique were presented in putting on the

air a performance intended for reproduction instantaneously in homes distant from the scene of the action.

Nine months ago, Dr. Alexanderson exhibited a simplified television receiver. Television then was taken out of the laboratory and shown in the home. Voice and picture were simultaneously broadcast by WGY on different wavelengths and observers stationed three to five miles from the transmitters saw and heard the performers.

The presentation of the drama by television was made possible by further developments by Dr. Alexanderson, the simplification of the transmitting apparatus in a convenient and portable form. The transmitter may now be carried from place to place as easily as modern broadcast equipment is transported, and it was indicated that the time will come when the television transmitter or camera will be set up in the radio studio, on the lecture platform, the stage, or at the banquet table. To illustrate the portability of the outfit, WGY recently set up the camera on the platform in the assembly chamber at Albany, where Governor Alfred E. Smith delivered his address accepting the Democratic nomination for the Presidency.

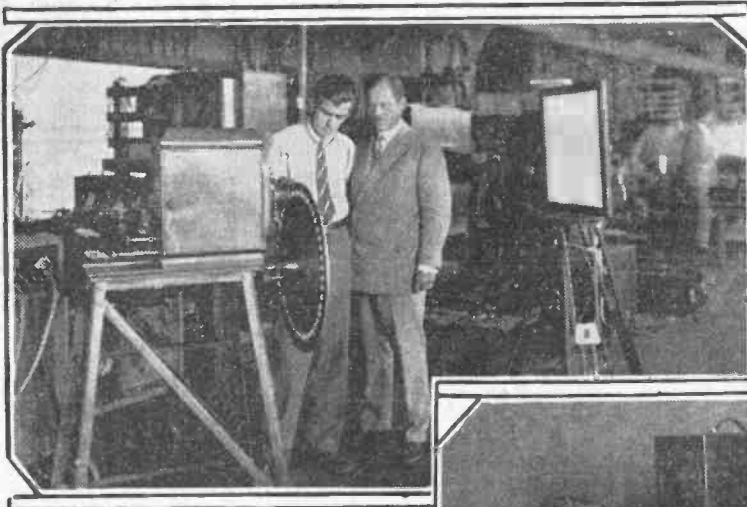
The camera, consists of three units, a cabinet containing a 24-hole disc and a 1000-

must also work with apparatus which is as yet crude and admittedly inadequate. For example, at the present time, only the heads of the actors can be shown, and the image in the television receiver is the red of the neon lamp, this being the only device at present which has the necessary simplicity.

The drama was presented in one of the studios of WGY. The director, standing between the two "character" cameras, governed the radio output by means of a small control box, with two knobs. With one of these knobs he brought any one of the cameras into the circuit, depending upon



Above: Isetta Jewel, first leading woman of a play presentation by television. Miss Jewel is standing before the camera containing the photo-electric valves. Left: The producer with the apparatus used to check and control the picture.



Dr. E. F. W. Alexanderson, consulting engineer of the R.C.A., with his assistant, R. D. Kell, examining the new television projection apparatus

which character was speaking. The second knob enabled him to fade the images in and out, very much as the fade-out is used in motion pictures. In front of the director was a television receiver in which he could at all times see the image going on the air, and check the performance. In addition to the cameras there was a microphone for each actor to pick up the lines of the play. The performance went out on three wave-lengths, the picture on 379.5 meters and 21.4 meters and the voice on 31.96 metres only.

Inasmuch as only the heads of the actors can be transmitted at the present state of the development, it became necessary for the director to find some means other than head movements or the change of facial expression to convey action. This was accomplished by utilising the third transmitter for hands and "props." For example, when the lady of the play offers to pour some wine for the messenger, the third camera picked up the image of the lady's hands with bottle and glass, as she poured the wine. Keys, a ring, a revolver, and many other "props"



Two of the television actors handling the "props" before the cameras.

were thus introduced to add realism to the performance and to break the monotony of head images only.

Because of the limited range of the camera, great pains were taken to keep the actor "framed," that is, within the small area in which the eye of the pick-up camera may find him. Each actor worked in front of a white screen, a background which gave definiteness to his features. Borders were established within which the actor had to stand, or be lost to the camera.

Special problems in make-up were presented that the red image might have definition and clarity. Make-up technique of both the stage and screen were drawn upon, and an effect different from either, reached. The eyes of the actors were accentuated to a point of exaggeration and the mouth and nostrils were sharply defined with strong color.

## Beam Service Maintained Despite Fire

**G**ELL machines monotonously punching tiny holes in thin tape, touch-typists following swiftly the waving blue line denoting the incoming dots and dashes of the Morse code, operators scanning endless yards of other tape as it disappears mysteriously into shiny brass machines that chatter and whirr—and business at the York Street Beam Office goes on smoothly as usual, despite the fact that a portion of the main Beam transmitting apparatus at Ballan is a heap of ruins, as a result of the fire that attacked the building which was regarded by the Insurance Company as one of its safest risks.

Officials of Amalgamated Wireless go about serenely, as though nothing untoward had occurred. Beam supervisors smile cheerfully, and thousands of words are thrown into space in their lightning passage to Canada or England. With the hub of the regular Beam service out of action, one might have anticipated a certain amount of disorganisation—in fact, one might reasonably look for utter confusion, if not total disruption.

But within half an hour of the arrival of the news reporting the disastrous fire plans

for an auxiliary service were actually put into effect, messages were passing smoothly over the new route, and the entire system was functioning again perfectly. Officials explain that it was merely a process of organisation; they discount anything sensational in this extraordinary "come back." Yet it stands upon record as an epic achievement in the history of wireless. Two stations at Sydney, two at Melbourne, with a further auxiliary station at Pennant Hills to relieve the load when necessary, are now maintaining constant telegraphic service to England and Canada.

In planning the Beam Service Mr. E. T. Fisk established, in addition to the big station at Ballan, a series of "feeder" stations at the capital cities. Two are at Sydney, two at Melbourne, and one each at Adelaide, Perth, and Brisbane. These stations send their American and European Beam messages direct by wireless to Melbourne, where they are "put on the air" via Ballan. It will thus be seen that the whole of this vast public telegraphic system is self-contained, its sections being dovetailed to make the service a complete one in every detail. Every possible contingency was taken into consideration so that

nothing could disrupt communication.

When the fire attacked Ballan, two feeder stations were requisitioned at Melbourne, one to work with Europe and one with Canada. Similar procedure was observed at Sydney. These four stations were in operation within practically a few minutes, thanks to the company's organisation, and to the immediate co-operation of the Canadian and British authorities. In addition to these four stations, a further station of high-power at Pennant Hills was held in reserve to take the "peak" load, that is, to cope with the extra traffic handed in at the busiest hours. This station may be worked from Sydney, or, by the simple throwing of a switch, direct from Melbourne, 600 miles away.

To supplement these arrangements, the feeder station at Perth was placed in touch with South Africa to provide an additional outlet if desired. This, of course, still leaves in reserve the stations at Adelaide and Brisbane, but it is extremely unlikely that these resources will be called upon, although they are available at a moment's notice. All of the stations now functioning are worked with reflectors similar in principle to the large Beam Station at Ballan, which is temporarily working a limited schedule.



# SUPER-POWER!



By  
**Ray  
Allsop**

(Associate  
Technical  
Editor)



WITH all due consideration of Capt. P. P. Eckersley's difficulties as outlined in his article last week I still maintain that in no other country in the world does broadcasting present such problems as in Australia. In no other country is a single group of eight stations asked to deliver a regular and reliable broadcast service to a few thousand listeners scattered over a continent three million square miles in area.

## National Institution

FROM the outset broadcasting was considered, in Australia, as a national institution—a means by which the lonely settler could be supplied with the news of the day, market reports, weather forecasts, and entertainment, and by which the city and suburban dweller could obtain first class entertainment programme and general information. With this in view the pioneer broadcasting companies in Australia built up stations of medium power and organisations to give this very useful service. For a long time the stations were running at a financial loss, but still progressed rapidly and improved their transmission and broadcasting technique, even though the licenses were only slowly increasing. After several years' operation they considered the question of relay stations to improve the signal strength in the far districts where reception is difficult for various reasons. Before the amalgamation of 2FC and 2BL both stations had applied for land lines to certain districts, with a view to commencing a relay service, but adequate lines could not be provided.

## British System

BUT these developments were held up by Government intervention, and we are on the threshold of a new era of broadcasting in Australia. Let us compare our present position with Great Britain and U.S.A. England possesses the most up-to-date broadcasting system in the world. It has 22 stations and relay stations in operation. All these stations are grouped as shown by the diagram, and completely connected by land lines. The power of the stations ranges from 30 k.w. at Daventry down to 200 watts at some of the relay stations. The distance from Aberdeen to Plymouth, the two extreme stations approximately 480 miles air line, is only 40 miles greater than the line from Sydney to Melbourne. The greatest distance a listener can possibly be from a station is approximately 100 miles. Licences in force in England are approaching the 3,000,000 mark, and there is a wireless receiving set in every house in three, the stations

of various powers being so arranged that inter-station interferences would be nil.

## American Method

IN America the position is reversed. Here broadcasting was pioneered by KDKA, and since its inception myriad stations have sprung up. A recent radio commission reduced the number of stations to prevent the chaos that existed. There broadcasting is not subsidised by license fees, but exists purely on advertising or its advertising value. The National Broadcasting Company has been recently formed, and operates some great stations. The Columbia Broadcasting System also operate a great number of stations. The majority of the stations operated by the National Broadcasting Company and Columbia Broadcasting System are all super-power, and capable of putting out a good signal strength into a fairly large area, the aerial power of a few of these transmitters being 50 kilowatts. There are also several powerful transmitters owned and operated by other organisations in various parts of the United States of America. The short-wave transmitters of WGY and KDKA put out regular programmes designed to meet the demand of the listeners in remote corners of Canada and dwellers inside the Arctic circle.

## Presidential Election Hook-up

DURING the recent presidential elections in the United States of America, Hoover, the Republican Candidate, spoke through one of the greatest network transmissions carried out, no less than 93 stations carrying out the simultaneous broadcast, 53 of these transmitters operated by the National Broadcasting Company, and twenty transmitters of the Columbia Broadcasting System, the rest being independently operated and owned. This will serve to show how well the U.S.A. is covered. There is a radio receiver in every house in five in the United States of America.

## Compare Australia

NOW consider how well the Australian stations have carried out their task with a limit of 5 kilowatts to their power, and a very small revenue compared with other broadcasting systems in other countries. At the present time there are approximately 289,000 licenses in force in Australia. Victoria is leading and has a radio set in every house in 3. N.S.W. next, with every house in 8. Yet, although the present system of Australian broadcasting has given a certain measure of satisfaction so far as the metropolitan, suburban, and near district listeners, it has left a lot to be desired for the widely scattered outback listeners. These listeners can only be given a reliable service by means of super-power stations.

If, when the Government comes to re-arrange broadcasting next July, it includes the intention of erecting a super-power station in its policy, then it will have succeeded in meeting with the most urgent need of broadcasting in Australia. In the next issue I will explain further.



How the broadcasting stations are distributed in the British Isles.



Howard Harris Photo

### The Poet Announcer

**M**R. BASIL KIRKE is a member of an old Manly family, well known for its sporting qualities. When he was fifteen years old he went to Fiji, because Fiji seemed a nice place for an adventurous young man to go to, being situated where it is, and having such a delightful frontage on the Pacific Ocean.

Arrived there, he began to study tropical agriculture; but he came back once every year to play football for Manly, which is what one might have expected from a "Villager." Agricultural studies progressed swiftly, and Mr. Kirke began to travel in search of new flora and fauna. He saw the Southern Seas and the gorgeous East; prospected for gold in New Guinea, and studied the pearling industries. He found that, although the gorgeous East may shower barbaric pearl and gold on her kings, travelling Australian botanists are excluded from the award rates. Incidentally he did a little big-game hunting through the Malayan jungles. He joined the Harvard University expedition which crossed the cannibal island of Malaita, and afterwards entered the Imperial Service as Acting Deputy-Commissioner of that delightful island, where, by the way, Captain Bell was murdered by the natives some time ago.

He then came to Sydney, and was established as Agricultural Expert to the Department of Lands, under the late Civic Commissioner, Mr. Fleming. Later he left the Government Service, and came to announce for station 2BL.

This was three and one-half years ago. He is now known throughout New South Wales as Uncle Bas, of 2BL, and has gained many laurel wreaths and letters of congratulation (which were far more acceptable) for his many classic deliveries. We hope Uncle Bas will not be hurt if we name him the Poet of Announcers. We don't really mean it. We only introduce the metaphor to show what we do really mean. He has the qualities of the poet in this respect—that he can bring his audience beside him over the boxing-ring, near the aerodrome, at the race-track, and among the crowds, and point out to them, or paint out to them, the things that are worth seeing. He sees the things we would like to

# PROGRAMME PERSONALITIES

see, and only those things; he is amused by the things which would amuse us; he is quick to pick out the salient points of a situation and to understand the changing whirl of public events; and he has the power of putting his audience in his place, so that they may feel what he is feeling. This is one of the essentials of poetry.

Of course this sounds very much like a reference "to whom it may concern be it known"; and, anyhow, if you are interested in wireless, you know it already. In fact, the only reason we have for making the foregoing remarks is that they are true. We belong to other days.

Broadcasting from outside the station Mr. Kirke has had some interesting experiences. He has announced the arrival of every aeroplane arriving in Australia from overseas, except that of the Ross brothers. He was at the microphone for 18 hours during the Kingsford Smith flight. He announced the arrival in Australia of the Duke and Duchess of York; and had his audience extremely excited (characteristic touch) to know with which foot the Duke would land. The number of his stunt broadcasts is legion, the latest being the Christmas Eve broadcast from Manly Beach.

Within the studio he has spoken on everything on which it is usual for people to speak over the wireless. His talks have ranged from lectures on ancient civilisation to relations of his personal experiences in the New Guinea gold fields. He speaks, generally, extempore, and always without notes, and puts most of the blame for his unrepeatable (not unrepeatable) reminiscences on the wide extent of his travels.

His chief delight is the Children's Session. Uncle Bas, during this session, speaks as he

would speak to his little son. This is because young Craigie Kirke has the mind of a child; and Uncle Bas thinks that what will interest Craigie will interest any other child. Which savors of the sound common sense of a practical man. In fact, Uncle Bas is interested in children, and some time ago delivered a series of educational lectures on everyday commodities produced in the tropics. Structure, materials, processes of manufacture were all dealt with; and thousands of letters were received from teachers all over the country testifying to the popularity of broadcasting as a means of education.

Mr. Kirke finds announcing light work. But there is a constant strain on the mind of the announcer, because no matter how hard he may work to please the public there are always people waiting for a slight error on which they can lodge a complaint. Knowing this the announcer feels himself to be in the amusing position of Damocles, who, as you know, was an old sword-swallower on the Tivoli circuit, and was always terrified lest someone in the audience might proffer him a real sword. Some time ago—you wouldn't remember him. Yet Mr. Kirke is satisfied that the man with the grouch represents only a small percentage of the community; and the many letters of appreciation and helpful constructive criticism have confirmed him very strongly in this belief.

### Scottish Comedian at 3LO

**A**RTHUR DOUGLAS, the Scottish comedian, who is making a welcome re-appearance at 3LO after a considerable absence from the studio, often speaks of the day, when, as a small boy, he made up his mind to become a vaudeville artist. "I was always a bit shy about my singing," he said, "and used to practise by stealth. By climbing to the top of our old four-story house in Glasgow, and, hanging four or five sheets over the door, also making sure that all windows were tightly closed, I was brave enough to raise my voice a little above a whisper and practise my song. Then, by the light of one wax candle, and a bit of a cracked mirror, I rehearsed my gestures, carefully watching my expression and effects in the mirror, thinking that as the effect seemed pretty good to me, it would naturally appear good to others. Finally, I won a competition that carried an engagement at a local theatre; this gave me my great chance, and from that time I have continued in the profession, singing my way round the world."

### Missed "Mike"

**A**CCORDING to one listener, there was only one thing to mar the Studio reunion celebrated this year at 2FC. "MIKE" WAS NOT THERE! "Everyone here is wondering where you are," wrote "Twilight Rose," faithful friend and admirer, who kept up a regular—if one-sided—correspondence with the elusive spirit of the studio. "The cheerful message you so kindly sent to us all last year was very much missed. But we did not forget YOU; we send our love, 'Mike,' and wish you a very Happy New Year."



Miss Irene Vandrough, who broadcast her farewell message to Australian listeners last Wednesday. She played Olivia in the play, "Mr. Pim Passes By," which was broadcast the same evening.



# TRACKING DOWN RADIO PARASITES

*How man-made static is traced to its lair and conquered by ingenious and inexpensive interference devices*

**T**HE constant demand for sensitive and more sensitive radio receivers has finally given us broadcast receivers capable of tuning in an electric motor's sparking brushes a mile away, quite as well as the programme of a broadcasting station three thousand miles distant. In other words, in our conquest of distance we have steadily approached the normal noise level which exists in any mildly congested locality, so that to-day we are just as apt to tune in the sparking motors, ignition coils of oil burners, contactors of elevators, sparks of trolley wheels, and other devices, as we are to tune in distant signals.

Unfortunately, man-made static, or inductive interference set up by sparking electrical appliances, is just as persistent and impossible to eradicate at the receiving end as it is Nature's own brand. It becomes a question of (1) decreasing the sensitivity of our broadcast receivers, which is certainly a step backward and therefore unsatisfactory; (2) becoming satisfied with powerful broadcast signals that ride high above the inductive interference level, which is generally the practice; and (3) locating and eliminating such interference sources as are most troublesome.

Because broadcast reception is so generally practised, it has become as much of a crime to interfere with such pursuit of happiness as it is to cause unnecessary noises in any community. In fact, the Golden Rule is being voluntarily applied to the prevention of radio interference in a manner that is truly commendable. Not only do users of interfering equipment generally correct the guilty apparatus when it is called to their attention, but many manufacturers of electrical refrigerators, small motors, oil burners, and other household devices are beginning to equip their products with interference prevention devices which cost so little yet mean so much by way of keeping the radio atmosphere from becoming polluted in those sections where the products are to be installed.

Radio interference may be caused by many conditions, but these are readily classified by the radio interference specialist. First of all, it is patent that most interference is broadcast over the electrical system. The problem, therefore, is to block or at least by-pass the interference before it can get out on the power lines and be widely disseminated.

Usually the simplest method is to employ an inexpensive interference prevention device comprising a pair of condensers of proper capacity and voltage rating, connected across the lines, with the centre post or pig-tail grounded. This arrangement effectively grounds the high-frequency disturbance before it can be distributed over the electrical system.

Household electrical devices such as a heating pad with thermostatic control constantly making and breaking the circuit, electric irons with uncertain connections and resultant heavy arcs, electric curlers also with arcs, violet-ray devices with high-frequency radiations, massage machines with sparking brushes, and so on, are capable of interfering with sensitive broadcast receivers over a distance of a mile or more. The practice here is to insert a simple interference device across the line feeding the appliance in question with centre tap grounded. Similarly with flashers, contactors, and other sparking devices, an interference device can be placed across the contact points, with a 50 to 100 ohm resistor perhaps required in one or both leads to the device itself, in D.C. circuits, and also with the centre tap grounded.

In the case of an interfering motor, an

interference device can be connected across the brushes, with the centre tap grounded, as well as across the line, also with centre tap grounded, so as to make the preventive means as effective as possible.

In the case of a transformer in the line, the interference device is preferably placed on the line side, with centre tap grounded.

Not only should interference devices be employed at the sources of interference, as a Golden Rule proposition by all those who have the interests of the community and their neighbors at heart, but it is well to include an inexpensive interference device across the line leading to the electrified radio set, with the centre tap grounded, as a means of keeping out much noise which is certain to come over the line and be introduced in the radio set through the A-C tubes. The cost is very slight compared with that of the radio set itself, yet the remarkable difference in background noise is worth much to the critical radio fan.

The Dubilier engineering staff has long specialised in radio interference problems, for the reason that the solutions are mainly in the form of special condenser combinations for by-passing the high-frequency interference to ground. The more persistent interference problems must be solved with a combination of condensers and choke coils, and sometimes with resistance as well, worked put in a suitable filter system by skilled engineering methods.

Invariably, serious interference in any locality is soon traced to its source by radio listeners as well as by the electric light company. The owner of interfering equipment is usually more than willing to correct the trouble, because the cost is relatively small. And, as already stated, more and more the manufacturers of electrical equipment are building interference-prevention devices into their products, so that there is no possibility of interference with local reception. Hence we may continue our quest of greater sensitivity, assured that the noise level in our community will be kept at an absolute minimum by conscientious neighbors.



*Were Paramount Stars Heard in Australia*

## Broadcasting and Sport

**T**HE Test matches proved once again the important part played by the broadcasting stations in sport. Australians are world renowned for their love of sport, and no broadcasting service would be complete—would indeed be supported—if it did not cater well for the particular games played during the seasons.

Doubtless there are some people who will object to anything exceeding a short description of the results of sporting fixtures being broadcast. These people, fortunately, are few, and their desires for solid matter or "highbrow stuff" predominating in the programmes do not find any general support from the large majority of listeners. Certain it is that there are others who keep their wireless sets merely for the purpose of getting the results on Saturday afternoons. Their interest in the other numerous items of the programmes is negligible.

It is to the credit of the broadcasting companies in Australia that the importance due to sport has not been neglected. Right from the commencement of the services in 1923, the directors and managers made thorough arrangements for the inclusion of sporting items, without overdoing it to the detriment of other matter.

**T**HE high-power radio station, KNX, operated by Paramount Pictures, was recently picked up in Honolulu. The time in Hollywood was between 7 and 8 p.m., and the radio listeners heard the voice of the announcer introducing them to the famous Paramount stars, Clara Bow, Esther Ralston, Bebe Daniels, Charles Rogers, and others. The voices of the stars were also heard speaking a few words of reply into the microphone. A vocal and instrumental concert followed, in which Baclanova, Neil Hamilton, Nancy Carroll, Charles Rogers, and James Hall took part.

Paramount headquarters in Sydney is anxious to know whether any Australian listeners have picked up KNX, and if they have, they are asked to communicate with that organisation. The wave length is 285.5 metres, and there should be a reasonable chance of Australian radio fans picking up the programmes, as the station is one of the highest powered in the United States. Paramount acquired KNX recently and transferred the actual studio to within the gates of the Paramount "lot" in Hollywood. All of the programmes are, therefore, put on the air within a stone's throw of the stages where the various pictures are in production.

## Test Arrangements

The interest taken in the Test matches this season is a record. It is no fantastic claim to make to say that broadcasting has contributed quite a lot towards developing and maintaining that enthusiasm. The matches in Brisbane and Sydney were followed closely by thousands of people who were unable to see the games, and it was expected that the third Test match in Melbourne would be a record in every way.

What a boon it is to many people to be able to follow the match so closely by wireless. There are thousands of men and women, too, who could not possibly go to the cricket ground; distance, illness, domestic responsibilities may keep them away from the cricket ground, but not prevent them from taking an active interest in the match, and, thanks to broadcasting, they do not have to wait for the belated information to come to them as in days gone by. Instead, they are able to follow the match, the every stroke and movement of the fieldsmen as well as the batsmen, with practically as much enthusiasm as if they were in the crowd. And certainly they do so more comfortably than the large majority of the crowd.

No other country can claim such careful and sympathetic interest in catering by wireless for sport lovers as Australia; and we should feel justifiable pride at what the broadcasting companies have done.

# New Features in the Programmes

## Swimming—"On the Air"

ARRANGEMENTS have been made by the New South Wales Broadcasting Company, Limited, to broadcast the Arne Borg swimming carnivals from the Domain Baths on Saturdays, January 12 and 19, and on Wednesday night, January 16, through 2FC. On Friday night, January 11, Borg spoke from 2BL at about 9 o'clock, giving some of his experiences during his recent travels and carnivals that he has appeared in. On the following Tuesday night the secretary of the N.S.W. Swimming Association will speak from Station 2BL.



Arne Borg.

## Knows Australia

M. R. C. PRICE CONIGRAVE, whose initial talks recently from 2FC on his experiences during fifteen years' residence in the Northern Territory won attention, is again in Sydney after three months in Papua, and a further series on his experiences there will be spread over January 16, 23, and 30. His talks under the heading "Wandering through Australia" were most interesting. Mr. Conigrave's slogan is "Know your own country," and his vivid power of description, coupled with an easy flow of language (he never refers to notes), provided fifteen very instructive minutes for the big following he has on the air. In 1911 he was the leader of an exploring expedition that penetrated the then unknown country lying between Wyndham and Admiralty Gulf, in the extreme north of Western Australia, and he gave a brief account of this expedition and its discoveries.

## Another Classical Programme



Madame Betts Vincent.

THE CLASSICAL PROGRAMME on Wednesday night, January 30, is arranged by Madame Betts Vincent. Madame Vincent has chosen her items very carefully, and 2FC music lovers are anticipating eagerly the good work she has put into their preparation.

## Coogee Pier Broadcasts

THE New South Wales Broadcasting Company has arranged with the management of the Coogee Pier to broadcast dance music from the programme which is directed by Billy Romaine, and on Friday night, February 1, a full concert programme, interspersed with dance music, will be transmitted, on similar lines to the "Night on Manly Beach" on Christmas Eve, which proved so successful. The children's session will be taken direct from Coogee Beach: Father Neptune will arise from the sea, with all his traditional trappings of sea weed, and the atmosphere thus created, with the roaring surf as a background, will break right away from the usual broadcasting routine. Later in the evening Dorrie Ward, W. E. Lewis, Amy Ostinga, and Rae Foster will contribute to the entertainment, together with dance items from the Pier Band.

## Tons of It!

THE H. W. VARNA COMPANY is producing "Tons of Money"—alluring title!—on Wednesday night, January 30, at 2BL Studios. A bright show, with movement from start to finish, it will prove a good set off against the full musical programme which is being broadcast through 2FC service on that night.

## Bowling Club

ON TUESDAY, JANUARY 29, the Warringah Bowling Club are arranging a programme which will be broadcast through 2BL between 8 and 9 p.m. The concert is under the direction of Mr. Malley, who in selecting his artists has an eye to the broadcasting value of their work.

## ALFRED O'SHEA

### Browning Mummery

In the next few weeks the N.S.W. Broadcasting Company is also offering some outstanding musical bookings. Mr. Alfred O'Shea, who leaves by the Tahiti on January 24 for the U.S.A., is making four final appearances—from 2BL on January 10 and 25, and from 2FC on January 12 and 21.

Immediately following this will come a series of dates from Browning Mummery, the eminent Australian operatic tenor, who appeared during the last season of the Melba-Williamson grand opera season. Mr. Mummery will be heard from 2FC on January 28 and 30 and February 1, 3, and 5, and from 2BL on January 31 and February 3 and 4, immediately after which he, too, leaves for America on his way back to take up English and Continental engagements.

On the instrumental side the company will be offering, through 2FC, on February 14 and 28 and March 14 and 28, M. Von Hoffman, of the Leipzig Conservatoire, in a series of piano-forte recitals. M. Von Hoffman, who is on a short visit to Australia, is a pupil of Godowsky, and, as his visit here does not synchronise with the Australian concert season, he has agreed to accept a series of broadcasting engagements.

3LO--3AR

## New Year Resolutions

NEW YEAR RESOLUTIONS" is the title chosen by P. W. Pearce, the well-known physical culture expert, for his talk, which will be given from 3AR, on January 25. Hundreds of listeners of both sexes have doubtless mapped out a plan of home training for themselves during the coming year, but the trouble is that enthusiasm soon wanes, unless interest can be maintained all the while. During his talk Mr. Pearce will not only outline many series of exercises that should prove most helpful to listeners, but also enumerate the advantages gained by keeping the flag of physical culture flying, no matter how many other attractions arise.



P. W. Pearce.

## There Go the Ships

ON Sunday, January 20, the morning service from the Collins Street Baptist Church will be broadcast by 3LO at 11 a.m. Special music will be rendered by



Capt.

Donald MacLean.

the choir, the preacher being Captain Donald MacLean, H.C.F., who will take for his subject "There Go the Ships." Captain MacLean is already known to thousands of listeners in Australia by his intensely interesting and thrilling stories of pirates of the Spanish Main, and his sermon, which will deal with the outlook of the individual as he confronts another fresh voyage in 1929 on the Sea of Experience, should contain much kindly counsel and friendly advice.

## Seasonable Gardening Talk

MANY amateur gardeners will be grateful for the talk arranged by the Department of Agriculture for January 21, when Mr. C. French, Entomologist, will give some seasonable advice concerning "The Insect Pests of the Rose."

## Dick Whittington and His Cat

A GREAT attraction for the kiddies on Monday, January 21, will be the broadcasting of the second act of the pantomime "Dick Whittington," from the Playhouse. One of the chief charms of this pantomime is that it has been expressly written for children,

and is not, as many of these productions are nowadays, a glorified vaudeville entertainment. Many old radio favorites take part in the fun. Joe Brennan, in his new guise of Dame Wattleblossom, adds still more to his already long list of successes, and his partner, Ida Newton, makes a dainty and vivacious Dick Whittington. A. G. Spry, also very popular with listeners, is Idle Jack, and B. S. Monti, the other half of the famous Spry and Monti combination, add greatly to the mirthful side of this happy production, whilst chief vocal honors fall to Darvall Thomas, who came to Australia with the first Quinlan Opera Company, and, in addition to shouldering the task of producer, has several fine solos in his role of Demon King Pato.



Joe Brennan.

## A Burns Night

TO commemorate the birth of the famous Scottish poet, Robert Burns, a special programme has been arranged at 3LO on Friday, January 25, comprising a recital of songs of Scotland from Miss Ella Riddell, and a delightful talk from Miss Frances Fraser, on the romantic life of the poet. As listeners know, few people are better able to interpret Scottish songs than Miss Riddell, who, in addition to being a past champion vocalist of Scotland has made a special study of the folk lore, and her songs, combined with the most interesting discourse prepared by Miss Fraser, should provide a most excellent and instructive half hour.

What do you know about the aerial of your receiver? After you have read this article you will probably be able to increase the efficiency of your set a hundred per cent. by attending to this end of reception in the proper manner.

# Your Choice of an AERIAL

By DON B. KNOCK  
(Associate Technical Editor)

We have reached a stage in radio engineering where we could digress for hours, weeks, and even months on modern receivers with their many innovations. There is apparently no limit to the application of the thermionic valve in its many forms, and this with the components with which it is used, enables us to keep well ahead in the designing of circuits and apparatus for reception.

That is all very well. No doubt there are many who look forward to the latest from the pens of radio authorities, but, at the same time, there must be countless enthusiasts who would like to see a little more time devoted to other all-important factors governing the laws of broadcast reception. The time is ripe for occasional information concerning what may appear to be subsidiary details, but what are really of extreme importance.

## DEPENDS ON LOCATION.

The first matters to be considered when contemplating the installation of a wireless receiver is, to the layman, "what kind of aerial is necessary." This article, therefore, deals with the subject in as concise a form as possible. What is one man's meat is another man's poison, which, taken as a simile means that where one type of aerial is suitable for a certain location, it may be hopeless in another location from the point of view of selectivity and atmospheric disturbance.

The receiver itself has most to do with what kind of aerial should be used. If the set is comparatively insensitive, or a long distance from the broadcasting stations, then the aerial needs to be as long and as high as possible. On the other hand, a very powerful and sensitive multi-valve receiver using two stages of screen-grid R.F. amplification and power audio amplification, placed fairly close to the transmitter of a broadcasting station needs little or practically no aerial at all.

## OUTSIDE AERIAL.

It may be taken for granted then, that the aerial must always be designed to suit the set with which it will be used. First of all, I will deal with the matter of the aerial as everyone thinks of and knows it—the conventional outside aerial.

If you live a long way from Coogee or Pennant Hills, such is the type you will need. Let us suppose that you have a three-valve receiver of the Reinartz family, three circuit tuner, PI, or crystal set. For such receivers it is well to think along the lines, "that a good aerial is as good as an extra valve." Generally speaking, in uncongested areas, a single wire 100 feet long, stretched horizontally as high above the ground as practicable, will give the most satisfactory results.

In more congested districts, where selectivity is what the listener wants, a shorter aerial about 50 feet long will be more suitable.

## PROTECTIVE ENAMEL.

The outdoor aerial should consist of enamelled stranded copper wire or enamelled 14-gauge solid drawn copper wire. The coating of enamel keeps the wire from corroding. This may not appear to be of any importance, but too often a poor connection caused by corrosion is the cause of bad reception, and even "artificial static" by the friction of corroded surfaces in a wind. For most aerials, whether outdoor or indoor, the insulated wire known as "Electron" is quite efficient and very convenient to use. This wire consists of stranded steel interwoven with a single strand of copper to raise the conductivity. Some idea of its durability may be gleaned from the fact that it was this kind of wire which was used during the European war for telephony and telegraphy communications over shell-swept areas. It was laid down "on the run" by the Royal Engineers, and would remain undamaged by the passage over it of such a heavy vehicle as a gun limber, whereas uninsulated, soft,

drawn copper wire alone would immediately have been severed.

## USE TREES FOR MASTS.

For average reception work, there is little need to provide aerial insulators with this wire. If there is a high tree conveniently near, a weight may be attached, and the wire slung up into the branches, afterward pulling it tight. This is really not the best of practice, however, as the time will eventually come when even that strong insulation will suffer at the hands of the elements and will chafe away with the swaying of the tree.

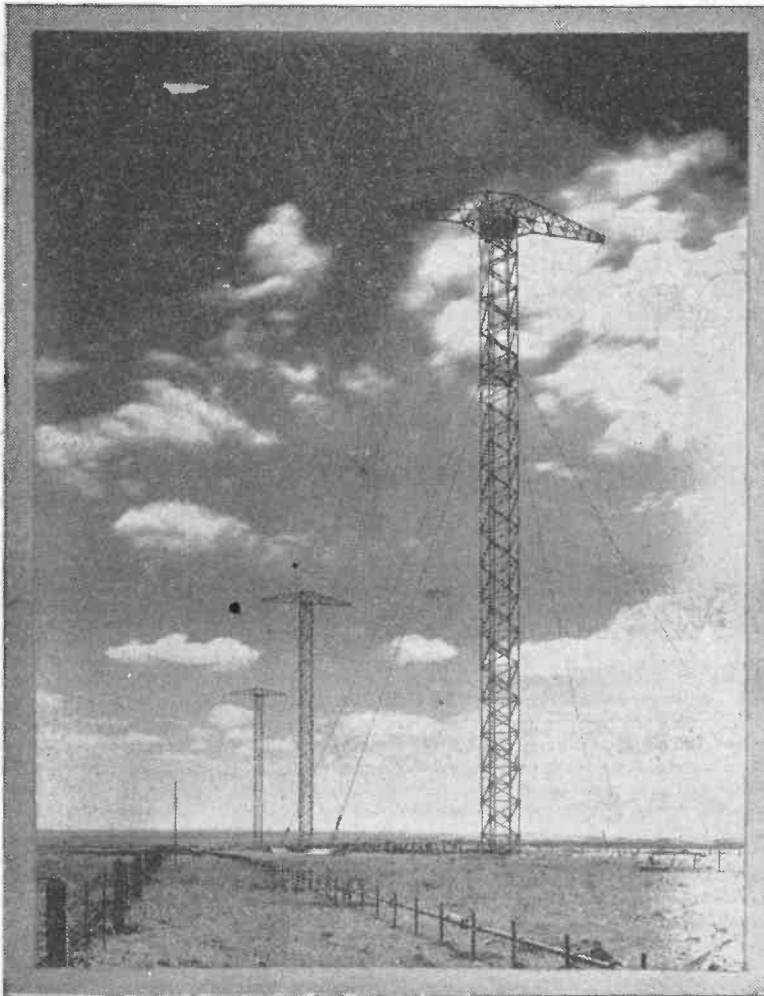
No matter what kind of wire you use for your outdoor aerial, use as many insulators as you like at each end of the span, the more the better. As I have mentioned the use of a tree for the supporting of an aerial, it is better to add that this should only be used as a temporary expedient. Remember that the tree with its towering branches is in reality a very certain "Earth," for the reason that the whole tree is alive with moisture or sap. The sap is in direct connection with the earth through the trunk of the tree, so that even if insulated wire is thrown into the tree, a great deal of signal impulse will be lost owing to capacity to earth.

## TREES AS AERIALS.

The way to use a tree for supporting the free end of an aerial is to use a long length of insulated rope from the branches, breaking this with insulators about 20 feet away from the branches, and starting the aerial at this point. While I am talking about trees, it may interest those who possess powerful and sensitive modern receivers to know that a really good aerial for such a set is obtained by using the tree itself. Drive a 6in. nail into the trunk of the tree, so as to penetrate well into the sap, and attach a wire from this to the aerial terminal of the set. Although the tree is really earthed, the branches up in the air are excellent collectors of minute impulses.

Try this sometime if you have a suitable receiver, but do not go about the country-

# COUNTERPOISE AERIALS HELP REDUCE EARTH INDUCTION



The aerials of the Beam system reach a degree of efficiency undreamed of by the ordinary broadcast listener.

side trying it with tropical thunderstorms in the offing! A tree is no more attraction than any other projection on the earth's surface to lightning; but when a tree happens to be in the path of the lightning discharge, the violent explosion which shatters the tree is due to the moisture suddenly vaporising. So if you see any forbidding black clouds about, give the idea a miss.

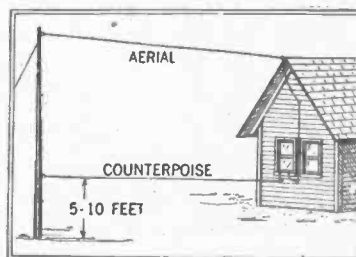
### COUNTERPOISE AERIALS.

A good earth connection will make all the difference to getting the best out of a good and well-elevated aerial. This point I will deal with later, as I wish to say a word or two about a counterpoise. The counterpoise consists actually of another aerial, preferably directly under the aerial itself, and a few feet from the ground. In many cases a counterpoise is a great advantage in reception as an aid to selectivity, and is sometimes very effective in eliminating to a certain extent, extraneous noises and interference from power leaks and earth induction.

Some time ago, one of our readers sent me details of his aerial-earth-counterpoise arrangement which gave him far better results than the aerial-earth arrangement alone. Two single pole double throw knife

switches were the only additional equipment necessary. A diagram is given, showing how the switching was arranged to use any of the combinations.

My correspondent used what I term "an unbalanced aerial," by taking his lead in from a point between the centre and end of the aerial. This may or may not be detrimental, and depends entirely on the location in which it is used. An unbalanced aerial is always liable to increase the broad-



The ideal aerial-counterpoise arrangement.

ness of tuning of most receivers, but when used with a counterpoise, the effect is balanced out or counteracted to a certain extent. In any case it is immaterial in the country or anywhere well away from the broadcasting stations

### HOW TO BUILD IT

The aerial used in the case outlined here consisted of a single wire 100 feet long and 30 feet high. The counterpoise was also a single wire 60 feet long, insulated by standoff insulators run along the outside of the wall of the house at a distance of three feet from the ground. The lead from the counterpoise was taken off vertically under the aerial lead in through the wall. For the earth connection a sheet of galvanised roofing iron was buried two feet in the ground, which was thoroughly moistened.

This aerial-counterpoise system when used



Showing directional quality of "L" aerial.

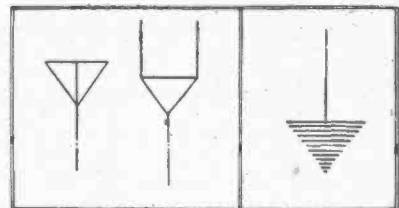
in the country at Cassnock gave practically the same range as the aerial-earth, but with sweeter results. When static is heavy the counterpoise is used in place of the aerial with the earth, and under these conditions Sydney stations were received at full loud speaker strength throughout the day, and inter-State stations at night time. The counterpoise is thus used as an aerial although it is placed close to the ground.

### ADVANTAGES

The main advantages of this system are:—  
(1) The aerial and earth system is used for long distance reception, such as 2YA, New Zealand, and inter-State B class stations.

(2) Aerial and counterpoise for inter-State A class stations, with an increase in quality and total elimination of interference from street power transformers and local generators, etc.

(3) The counterpoise and earth combina-



General symbols for aerial and earth.

tion gives good daylight reception of main stations with a radius of 130 miles approximately at good loud speaker strength, with inter-State stations at nightfall. It also allows reception through heavy static conditions which would normally be out of the question by the main aerial.

The results obtained with the arrangement are worthy of note, as the receiver used on these combinations comprised a stage of R.F., detector, and two audio stages, but excellent results and improvements should be noticed with almost any type of receiver. The scheme will appeal to, and be most useful to, country readers.

### ALTERNATE ARRANGEMENTS

The two single-pole double-throw switches are both mounted together on a common block, and an ordinary lightning arrester spark gap may be connected between the

# THE RELATION OF THE EARTH CONNECTION TO THE AERIAL

terminals 1 and 3 permanently. It is a simple matter at a moment's notice to change over to any combination required according to weather conditions and interference. Readers who are at the moment wondering what aerial arrangement they are going to erect will find this idea of my correspondent in Cessnock very useful, and there is, of course, no need to stick to the length or type of aerial and counterpoise specified.

Sometimes it is found on examination of a carefully-constructed receiver, that the aerial system is excellent, and the earth connection little better than none at all. It

Mother Earth, we may as well make it as efficient as possible.

### THE EARTH

Firstly, dry earth is not a good conductor, and so it is necessary to penetrate into the damp or wet ground underneath. This may be done in various ways. The most usual way is to connect a wire to the cold water-pipe. This forms a really good earth, as the pipes penetrate well below the surface of the ground. Do not make the mistake of using the hot water-pipes, as although by this means you may get an earth connection, yet it often goes a long way round to get there. Also, if the hot water system is of the electrically heated type, the hot water-pipes may not be earthed at all, and furthermore, may pick up a lot of alternating current hum from the system.

### WATER AND GAS PIPES

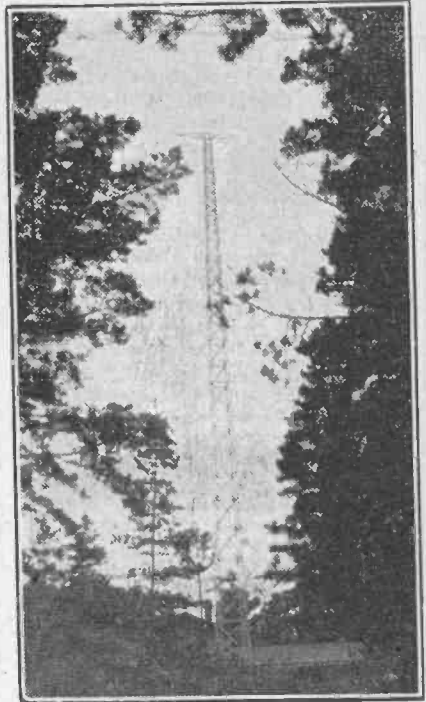
In order to get the best service from a water-pipe earth, the receiver should be connected to the pipe as close a point as possible to where it enters the building from the mains. There are many special clips available on the market for making connection to water-pipes. The pipe and clip should both be well cleaned for a good surface contact before tightening the clip, and it is well to see that the clip is REALLY tight.

Never, under any circumstances, use a gas-pipe for an earth. This was common practice in earlier days, until the danger was realised. There is always the danger of fire if the aerial were to accumulate a heavy static charge. There are often insulating sections in gas-pipes which make them poor conductors, and introduce high resistance.

If you have no water-pipes available, the next best procedure is to drive a long pipe or pipes into the ground for a depth of at least six feet. One long pipe in the ground will be better than a number of short ones, and pipes are easier to drive into the ground than the business of digging up and burying a metal plate or plates.

### OLD RADIATOR

I saw an ingenious scheme recently in American "Radio News." The earth system a reader had installed consisted of an old worn-out automobile radiator and some pipes.



The ideal tower aerial. A tall lattice mast of an American amateur.

The building housing the receiver was on sloping ground, and the radiator and pipes were buried in a line with the former at the upper end. Water was then poured into the radiator, and as it gradually leaked out the earth round the pipes was moistened. This may seem a little elaborate, but there is no telling to what end a real enthusiast will go for efficiency.

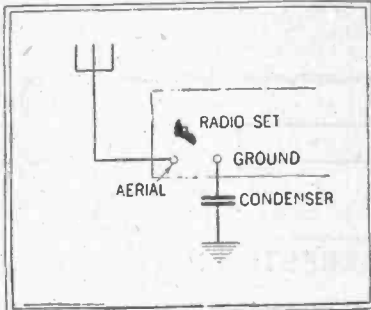
### WELL OR RIVER

In a country district a stream or well can be utilised by dropping a length of bare wire into the water, and where a residence is situated close to the edge of the sea, what could be more ideal for the best of all natural earths? Where B eliminators are used with receivers it is a good precaution to connect a fixed condenser of large capacity between the set and the earth. By so doing, the set is completely disconnected from the earth so far as Direct Current is concerned, and the condenser will pass R. F. currents without any difficulty. The condenser should have a capacity of at least 1 microfarad.

### CAGE AND KITE AERIALS

There are other types of outside aerials which need not concern the broadcast listener. I refer to the once familiar multi wire or cage type aerials. These are only to-day useful for the transmitting station and the broadcast listener has little or nothing to gain by erecting more than a single wire aerial.

Sometimes a radio club or wireless society will organise a field day, and will take receivers (and often transmitters) out into the country for comparative tests. The nearest fence or tree serves to sling a wire over for an aerial, and some will resort to kite aerials. Whilst it must be recognised that it was by this means that Senator Marconi first received signals in Newfoundland from his original Poldhu station, I wish to point out that it is a very dangerous practice to experiment upon, particularly in Australia,

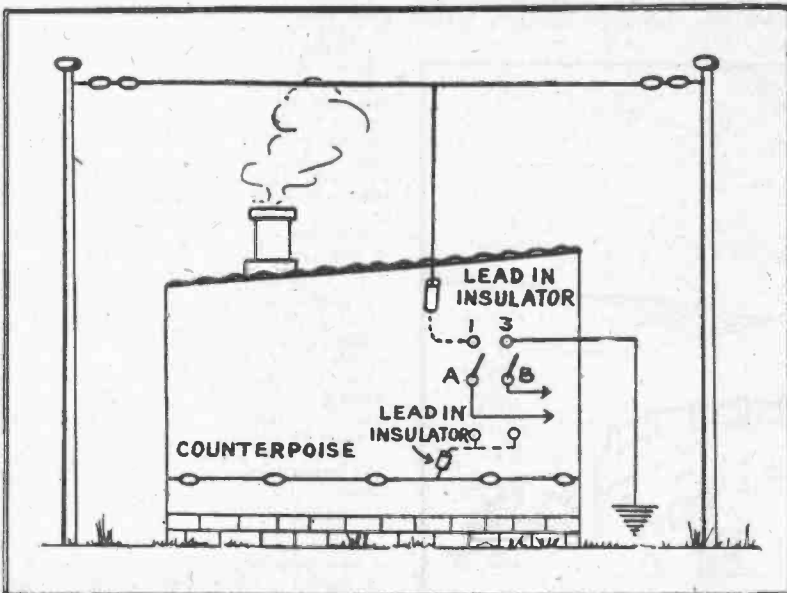


Series condenser reduces earth induction.

is important to remember that the efficiency of the earth is just as big a contributor to success as the aerial.

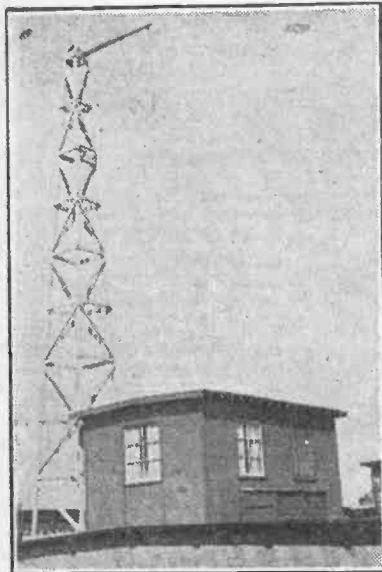
### LIKE BIG CONDENSER

Look at it in this light. The signals are received by both the aerial and earth. They act together, just like the plates of a big condenser with the air as a dielectric between them. If one side is inefficient it corresponds to a condenser which has faulty plates on one side. It is better to consider any aerial system as a "balancing capacity," and this will at once be self explanatory as to why an aeroplane needs no actual earth connection in order to transmit and receive radio signals. A trailing aerial consisting of a wire hanging under the fuselage is generally used, and the frame or metal stays and enginework of the machine forms the balancing capacity. If we are to use an earth connection then, for reception on



A "Wireless Weekly" reader's alternate switching arrangement.

# INDOOR AERIALS DO NOT REQUIRE LIGHTNING ARRESTORS



An example of a short-wave transmitting aerial.

The big kites went up into the blue with a rush, and the prompt binding of the end of the line around a staunch wooden fence post on the cricket field used for the occasion saved a prompt dragging of a series of boys speedily across the field. This done, I proceeded to drive a brass rod into the earth, and, donning the headphones, adjusted the silicon-steel point crystal detector. I then asked one of my colleagues to pass me the end of the aerial, which was swinging idly about two feet from the ground around the wooden post.

### EIGHT-INCH SPARK

It was nearly his last action on Mother Earth, for as he went to take hold of the

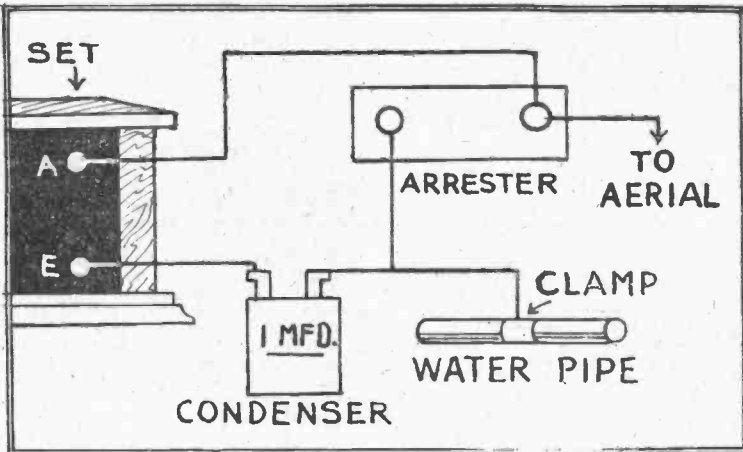
charge of static electricity. The wooden post had insulated the aerial from the earth, and when the boy reached to take hold of the end, the aerial promptly discharged its accumulated static to earth through his body.

The scare was so complete, that to bring the kite down to earth I stood on a wooden board, wrapped my hands with clothing, and cut the wire with a pair of insulated pliers, whereupon the kite made off at an alarming rate, and proceeded to drape itself around the parish church tower, much to the annoyance of the township. I can quite imagine the effect in Australia during some of our sultry days, so intending experimenters on

where the atmosphere is subject to sudden heavy static charges.

### STATIC SHOCK

In the earlier years of my interest in wireless communication, I, with a fellow experimenter, thought we would see what difference a very high aerial made to signal strength with a crystal set. This was in 1913, when the only signals to be heard were ships around the English coast, with 650-metre Marconi sparks. A man-kite of comparatively enormous dimensions to two small boys was made and with the assistance of other small boys, it was launched into the air at the end of about 200 yards of hard-drawn telephone wire, obtained from some derelict lines after a gale.



Schematic connections for earth series condenser and lightning arrester.

wire a crashing spark about eight inches long met him with full force. It was sufficient to render him unconscious for about 20 minutes, during which we were very alarmed—and, incidentally, keeping well away from that aerial—the while the kite was ducking and swinging away up in the heavens.

After launching the kite, a heavy black cloud had passed just overhead, and the elevated wire had accumulated a heavy

these lines may profit from the forgoing

### INDOOR AERIALS

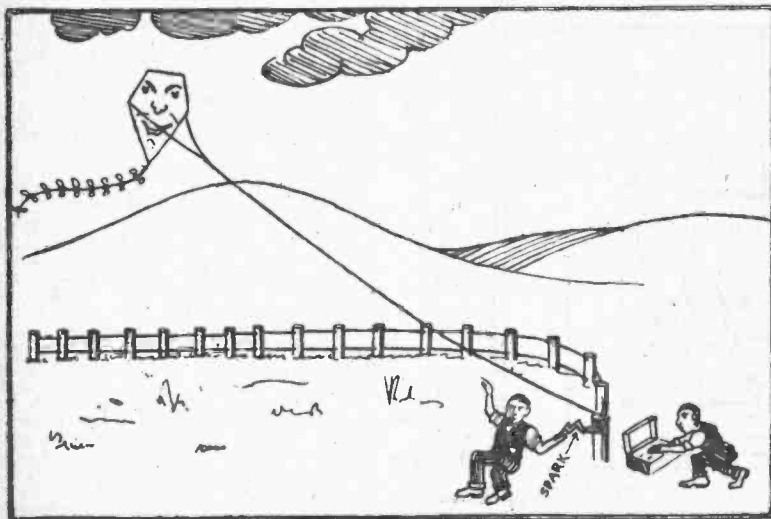
Some very good results may be obtained nowadays with indoor aerials, and the indoor aerial is far from being an object of scorn. It has a disadvantage where a regenerative detector alone is followed by audio amplification, and that is that one may be so far away from a station as to find it necessary to "push" the regeneration, resulting in loss of quality of reproduction. With a Reinartz receiver working in the city, as it should, 36 feet of insulated wire around the picture rail will be ample for full loud speaker volume from 2BL, 2FC, 2GB, and 2UE. The detector valve for such results should not be "just a 201A type," but one designed for such work, such as the Philips A415, Mullard PM4D, Six-Sixty SS 4075HF, Osram DEL410, or Cossor 410. The indoor aerial, moreover, is instrumental in filtering out a lot of static in these troublesome summer evenings.

### ARRESTOR UNNECESSARY

It is also unnecessary to include a lightning arrester in the indoor installation, and this eliminates at once one possible source of trouble.

An aerial underneath a dry roof is also protected from wet weather (almost unnecessary stipulation in New South Wales), and in some cases it may be erected right up in the eaves, at a greater height actually than may be obtained outside. The indoor aerial should be the same as an outdoor aerial, so far as an unbroken length of wire is concerned.

Avoid where possible running the aerial or lead in parallel to the electric wiring of the house. Often receivers will pick up a strong hum from too close a placing of the pick-up system to the house wiring. Where



A kite aerial is subject to sudden heavy static discharges.

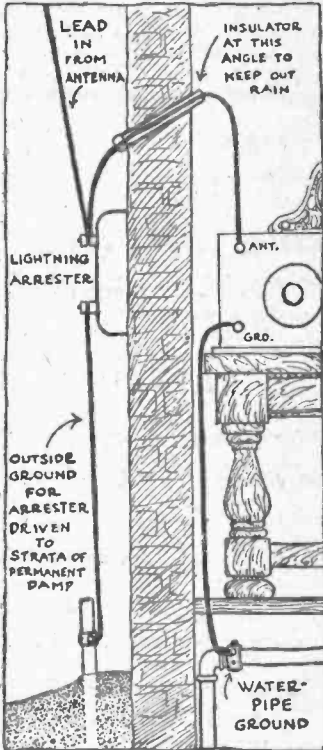


# LIGHT SOCKETS AND TELEPHONE CAN BE USED AS AERIALS

the physical characteristics of the building make it impossible to get a straight running length without angles it will be of advantage to make the aerial of an overall greater length than in the case of the outdoor aerial. There are many ways in which indoor aerials can be improvised.

## SOCKET, PLUG, AND TELEPHONE

First, there is the Dubilier light socket aerial plug. This is a device which plugs into the lamp socket and in effect uses the



Showing how lightning arrester provides short path to earth outside building.

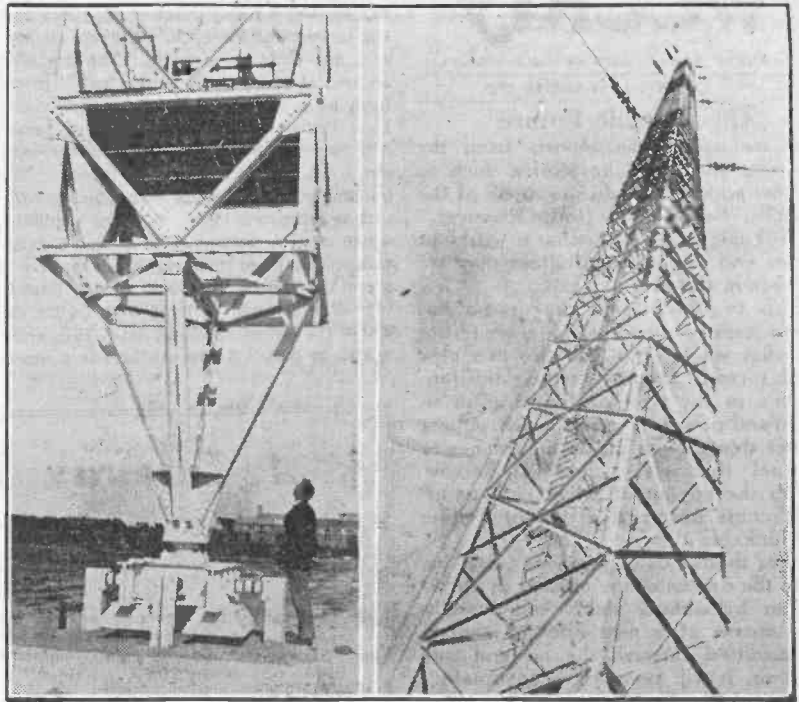
electric wiring through a capacity coupling. Such a device is not hard to make, but good fixed condensers must be used, otherwise a breakdown may spell calamity.

How many know that the telephone can be safely called into use as an aerial without interfering with its use in any way? This may be done by getting a sheet of metal large enough to extend to the size of the telephone base. Connect this plate to the aerial terminal of the set, and stand the telephone on the plate.

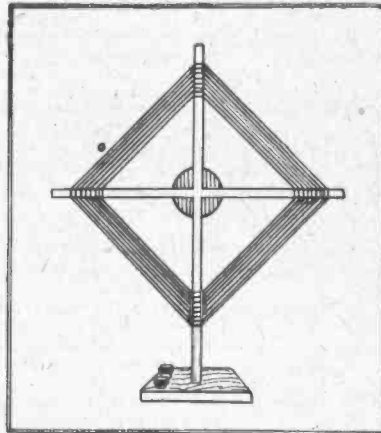
In many houses there may be a disused bell ringing circuit. This may also be used as an aerial by attaching a wire to an exposed portion of it with a .001 fixed condenser in series with it.

One can turn to a host of aerial supplies for use with very sensitive receivers, such as fire escapes, spring mattresses; but wherever possible it is beneficial to erect a properly designed indoor aerial on the lines shown in the diagrams.

The loop or frame aerial is only suitable for maximum efficiency where the set is designed for use with it, and where the loop itself forms the first R.F. or aerial coupling tuned circuit, so that it is not proposed to touch upon the subject here.

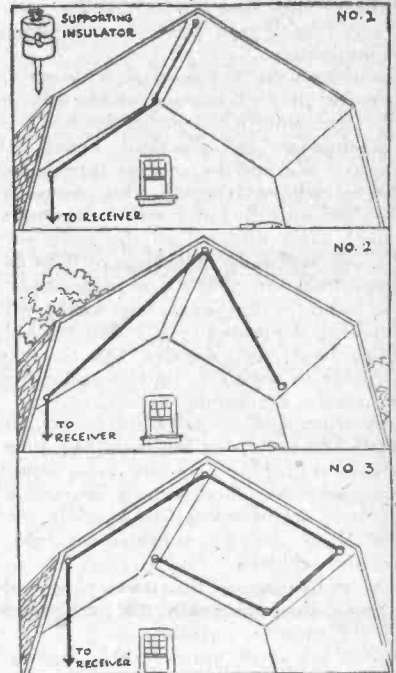
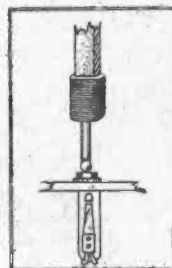


The masts holding the aerials at one of Germany's most powerful broadcast stations.



A loop aerial is only suitable for use with sets suitably designed. A convenient method of mounting a loop aerial is by means of a telephone plug and jack.

(In the next issue of "Wireless Weekly" this article will be concluded. The Lenz aerial will be described, in addition to underground, underwater, and short-wave aerials.)



3 METHODS OF GETTING RUNNING LENGTH IN AN ATTIC AERIAL. NO. 1 IS MOST DIRECTIONAL.

# Wireless Weekly

Incorporating "Radio in Australia and New Zealand."

FRIDAY, JANUARY 18, 1929.

## The Terrible Future

IF we accept the reports from the great physical laboratories, such as that which formed the subject of the article, "Behind Your Radio Receiver," in our last issue, then what a world of great and terrible possibilities may we expect in the future.

Up to the present time radio has been used only in the lighter vein, but if what we hear is true we can now look forward to some startling developments in the way of transmission of light and power by radio, which, among other things, will enable aeroplanes to propel themselves through the air. With the advent of power will naturally come heat and a thousand other unthinkable things.

For thousands of years we have dug into the depths of the ground to obtain water by sinking shafts called wells. By means of a new kind of energy, transmitted through the air and into the air, it will be possible to obtain a water supply, like we now extract nitrogen from the air. The water, instead of being transmitted through pipes from reservoirs to cities, will be transmitted over land on high-tensioned power, and then converted by electrolysis back into water for supplying communities.

In the next few years such things as impure air and impure water will be obsolete, due to the newer methods of transmission by powerful beams of radio. We now have made directional beam radio a reality. This, properly applied on the rear of a passenger coach, and directed to the train following, will save thousands of lives by the prevention of rear-end collisions.

Radio in the next few years will establish itself so strongly that we will look back and wonder how it was possible to have got along without this wonderful commodity.

Unfortunately, or fortunately, we have had writers of the time, like Jules Verne and H. G. Wells, who could visualise what they termed fantastical dreams, but to-day we are actually seeing these dreams unfolded and becoming realities. The dreamer has an important place in the development of science, for he is really the pace-setter for the engineer to follow up.

But we must not let these dreams master us. Most of them are extravagant, and not a few distorted. We must remember, too, that scientists think in millions of years, and what to them may be the near future may be to us an interminably long time ahead.

## BBC's New Home in London to Hold 1000 People

ARRANGEMENTS have been completed for the transfer of the headquarters of the British Broadcasting Corporation from Savoy Hill to Portland Place, Oxford Circus, as soon as a new building is ready. The site, with an area of about 20,000 square feet, is in the form of a peninsula facing south, visible from Oxford Circus. The western facade will dominate Portland Place, and the eastern front will face Langham Street. The building will be ready for occupation in 1931.

It is estimated that the new building, which will cost between £400,000 and £500,000 will provide more than 100,000 square feet of useful floor space. There will be nine studios four of which will be more than double the size of the largest studio at Savoy Hill, which is 44ft. by 25ft. There will also be a super-

studio, three storeys high, approximately 4000 square feet, which, with its gallery, will be capable of accommodating an audience of 1000, as well as a large orchestra.

The studios and their suites will be insulated from all external noise. They will be grouped one above the other in a vast control tower of heavy brickwork, ventilated artificially, and protected from street noise by the complete outer layer of offices. Wide corridors and thick brick walls will insulate the studios from the offices. Each of the four large studios will have a suite attached, comprising waiting-room, band-room, engineer's-room, announcers' room, listening-room, and echo room. There will be eight rehearsal rooms, six waiting-rooms, a reception suite, and special dramatic effects studio.

## A Two-way Talking Mix-up

The verbatim report of a little altercation which took place in the 2FC Studio recently with dire results to housewives and physical culture experts.

- MR. COCHRANE—2FC. Sydney, as our programme has been given over to lighter vein, to-night I propose to—
- MR. HALBERT—2FC. Sydney, I apologise for interrupting, but—
- MR. COCHRANE—I say, Halbert, you've got a nerve, butting in like this; it's against all the ethics of broadcasting.
- MR. HALBERT—I'm sorry, but I'm down on the programme to open with—
- MR. COCHRANE—No, you are not; here it is in black and white. 11.20: A talk on cooking, by A. S. Cochrane. You can't get away from that.
- MR. HALBERT—Oh, yes, I can; here it is, in white and black, a talk on physical exercises by Laurence Halbert.
- MR. COCHRANE—I'm very sorry, but I have several requests from listeners who are starting on their cakes for next Christmas.
- MR. HALBERT—I can't help it; I've got several of my listeners still waiting in their bathroom from this morning, waiting to go on with their physical jerks.
- MR. COCHRANE—I regret it; but they'll have to get a cold. I'm going to start on my cooking lesson.
- MR. HALBERT—I regret it, also, but I'm going to start on my physical culture lecture.
- MR. COCHRANE—Mixed with one pint of milk.
- MR. HALBERT—Now extend arms above the head.
- MR. COCHRANE—Working the flour into a dough.
- MR. HALBERT—Now inhale.
- MR. COCHRANE—Half a cup of raisins.
- MR. HALBERT—Then exhale.
- MR. COCHRANE—Two ounces of sultanas and—
- MR. HALBERT—Breathe naturally, bend the head.
- MR. COCHRANE—And cover with the white of eggs, and the dough is now ready to—
- MR. HALBERT—Lie flat on the floor.
- MR. COCHRANE—And roll in the desired shape.
- MR. HALBERT—With the hands touching the toes.
- MR. COCHRANE—Place in the oven.
- MR. HALBERT—The left leg and the right arm.
- MR. COCHRANE—And don't open the oven door until you—
- MR. HALBERT—Bend backwards and forwards six times, so that the abdomen is—
- MR. COCHRANE—Nicely browned—then take it out and—
- MR. HALBERT—Hold the head erect, with the—
- MR. COCHRANE—icing sugar spread over the top.
- MR. HALBERT—Keep this up for four minutes, and work up a good perspiration.
- MR. COCHRANE—Stand it on a tray.
- MR. HALBERT—In a good hot bath.
- MR. COCHRANE—So that your guests will see how you can—
- MR. HALBERT—Towel down and dress in flannels.

### THE RESULT

- MR. HALBERT—With the arms extended.
- MR. COCHRANE—Put one cup of flour in.
- MR. HALBERT—The palms of the hands downwards.

# The Safety Valve

Readers are urged to express their opinions on matters pertaining to broadcasting. If you have some grievance, if you have some constructive criticism to offer, here is your chance for expression—your safety-valve. The



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

## Not Surprised

Dear Sir,—I was decidedly interested to hear that "4QG's announcer 'peels the potatoes' good enough" for "Hobo," but my letter was intended to express the opinion of listeners with some idea of English grammar and correct pronunciation, to all of whom the gross blunders of certain announcers at 4QG must be, to say the least, extremely distasteful.

I agree with "Hobo" that most of the announcers at 4QG have Australian voices, though I fail to see any advantage in this; and, owing to his proximity to this powerful A class station, I have no doubt that he hears the news very clearly.

After reading "Hobo's" letter ("W.W." 4/1/29), I am not at all surprised that he is quite satisfied with 4QG.

Yours, etc.,  
Toowoomba. QUEENSLANDER.

## Don't Shoot the Announcer

Dear Sir,—While listening to 4QG, one often feels like misquoting "Don't shoot the announcer, he's doing his best," but after reading "Grin and Glum's" defence, one is tempted to take a shot, though with justice the target should be those responsible for the appointments. Special qualifications and training are needed for most professions, and if competent announcers are not available, then training under a qualified elocutionist should be sought. This advice is tendered free, particularly to the announcer in charge of the Women's Session, who, in common with nearly every 4QG announcer, almost invariably accents the wrong word, mostly the last, in each sentence. One announcer, with an excellent radio voice, spoils his delivery by peculiarities of pronunciation. "Perth" is given as "Fairth," "pearl" as "pairl," "transferred" as "transfaired," "sold" becomes "sawled," and so on. Perhaps this is some inherited accent, but cultured speech does not permit of accents; for instance, an Englishman who speaks good English does not betray by an accent the county from which he comes.

An otherwise delightful announcer at 2FC pronounces the numeral one as if spelt "wan"—an Irishism, I believe. Broadcasting stations can do much by way of indirect education of listeners, and it is tragic to hear mistakes like 'Kosciosco' for 'Kosciusco,' and "Eye-talian" for "Italian" being perpetuated over the air. One wonders how 4QG announcers spell the word "length"—as pronounced by them, it is minus a "g." It looks as though 4QG is suffering the blight that attacks most Queensland State enterprises, and the latest figures show a large decrease in wireless licenses in this State

Yours, etc.,  
Stanthorpe, Q.  
"ANOTHER QUEENSLANDER."

## One Good Turn—

Dear Sir,—In this week's issue of your valuable paper there is a request for a copy of "Wireless Weekly" containing the circuit diagram of the All Empire Short Wave Receiver.

Under separate cover I am forwarding you a copy of this particular issue, which is to

be sent on to Mr. F. Coggin. I hope it will reach him safely and meet his requirements. I also wish to state that I have copies of your paper from February 11, 1927, to December 28, 1928, inclusive, with the exception of the copy I am forwarding you. They are all in good condition and should you have any inquiries for any of these back issues I will be only too pleased to let you have them for the postage.

Yours, etc.,  
Longreach. C. L. DOLGNER.

## From an Anonymous Correspondent.

Dear Sir,—Why ever didn't you leave well alone, and let the public retain their own ideals of the people who sing and play to us. It's quite pathetic to hear beauteous young flappers, for instance, say: "Fancy Charles Lawrence a fat, old, bespectacled fellow like that," when they had visualised a jolly, curly-headed boy, bubbling over with fun, especially when he talked of "his wife." Now we are all sure he has a wife, and he's a "back number." Then, again, Len Maurice! A mouth that goes from ear to ear

## LAUGHING COMPETITION

ON MONDAY, JANUARY 28, 2BL are offering a most novel competition. A number of well-known artists are participating, and the idea is to see who can laugh the best. Each artist will tell a short, humorous anecdote, and then laugh heartily at his own effort; each artist will follow suit, and listeners will be asked to vote for the artist whom they consider laughs best and most heartily. A prize will be offered to the listener who succeeds in guessing correctly the popular vote.

"Wireless Weekly" will publish photographs of the artists in the act of laughing, together with a ballot coupon containing their names. Entries should be directed to the New South Wales Broadcasting Company, Ltd., 96-98 Market Street, or to "Wireless Weekly," 51 Castlereagh Street, Sydney.

and an idiotic look. And Mabel, looking as if she wants to bite everyone with that "lovely set," and poor old Bryce, scratching his face against the pegs of a fiddle. Anyhow, it's no competition, it's a gift to some relative or friend of a studio habitue.

Yours, etc.,  
ONE OF THE DISABUSED LISTENERS.

## On the Other Hand

Dear Sir,—I think that the new "Wireless Weekly" is a matter for congratulation. I like it because it is much brighter, more reliable, better printed, and generally more interesting. I think that the policy of printing interviews with the artists is an excellent idea, as we are all curious to know what the broadcasters are like. I must say, also, that I appreciate the attitude which gained for "Wireless Weekly" readers the advantage of the technical knowledge of

Mr. Allsop. May "Wireless Weekly" long reign.

Yours, etc.,  
Drummoyne. F. J. KINNAIRD.

## St. Mary's Service

Dear Sir,—In reply to a letter from "Constant Reader," of Kuring-gai, in the Safety Valve column of "Wireless Weekly," December 28, I would like to tell him what happened about two years ago.

The "A" class stations were quite prepared to broadcast Roman Catholic besides Protestant church services, and one Sunday night did broadcast the service from St. Mary's Cathedral. Although ours is a Protestant family we decided to listen, mostly for the music, but all we heard was a someone who for one solid hour preached in the most heated manner. It was at this stage that the engineer on duty suddenly discovered that something was amiss, and cut off the line, which immediately stopped the broadcast.

Next day the station was bombarded from every direction with telegrams, phone calls, and letters, all to the same point, i.e., that if this was the way certain people took advantage of broadcasting they should not be given another opportunity, with the result that "Constant Reader" has observed. The only other times Roman Catholic broadcasts have taken place since was during the Congress.

As regards the Theosophical Society "Constant Reader" must remember firstly that theirs is a "B" class station, and does not receive any of the license fees, and, secondly, that this is a wholly sectarian society, and cannot be expected to broadcast from other churches than their own.

Yours, etc.,  
Mascot. S. H. EAST.

## Another View

Dear Sir,—There have been many arguments and suggestions on the subject of religious broadcasting, but have any of your contributors paused to think before writing whether it matters if the services are from church or studio, as far as any able-bodied person who is within reasonable distance of a place of divine worship is concerned.

"Constant Reader" (28/12/28) complains about the "A" class stations not broadcasting Catholic services. Would he feel (after listening to the service over the air) that he had kept holy the Sabbath day—unless he had also assisted at Mass in a Church? I don't think so, nor would any other Catholic. Of course, in hospitals there are a number of Catholics as well as Church of England, and O.P.D.'s. I do not think it is fair to tune in any one service in such places, as how many Catholic patients would listen to any other service, and how many other denominations would listen to Catholic service.

I would suggest one "A" class station church service—the other sacred and other good music and any Catholic who cares to, tune in 2UE (B class station). The Mass in the morning, 11 a.m., and the evening devotions are put on the air by this station, and transmission is good.

By this means, I think, all, or the majority, of listeners would be catered for.

Yours, etc.,  
Leichhardt. JAMES MULLINS.

# A NEW DEPARTMENT

ECONOMIC RADIO STORES HAVE OPENED A NEW DEPARTMENT.

Our new Economic Set construction department will positively save you money when buying a radio. If you do not feel confident to build your own radio, then our mechanics will build it to any circuit you may select.

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 A Set of Parts, with instruction sheet for building. Complete with Headphones, Aerial, and Everything required.  
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## RECOMMENDED PARTS

For the Screen Grid Short Wave Converter.

1 Radiokes Screen Grid S.W. Coil Kit . . .	3	12	6
1 Bradley Leak . . . . .		8	6
1 10-Megohm Grid Leak . . . . .		1	0
2 .5 M.F. Bypass Condensers, 4/6 . . . . .		9	0
1 Best .00025 Condenser (Isograd) . . . . .		2	6
1 Do., .001 do., do. . . . .		2	9
2 Amperites Filament Controls, 6/9 . . . . .		13	6
1 Toggle Switch . . . . .		1	6
1 Philips A442 S.G. Valve . . . . .	1	10	0
1 Philips A415 Detector Valve . . . . .		15	0

Total, £7/16/3.

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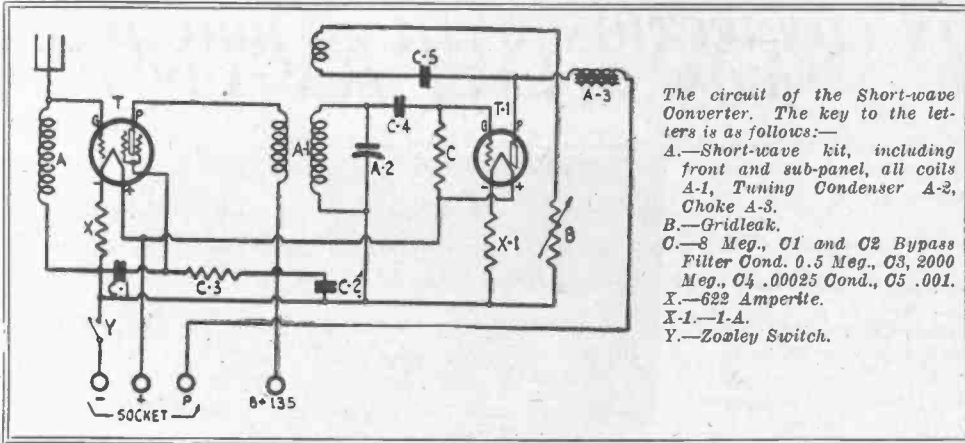
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The circuit of the Short-wave Converter. The key to the letters is as follows:—

A.—Short-wave kit, including front and sub-panel, all coils A-1, Tuning Condenser A-2, Choke A-3.

B.—Gridleak.

C.—8 Meg., C1 and C2 Bypass Filter Cond. 0.5 Meg., C3, 2000 Meg., C4 .00025 Cond., C5 .001.

X.—622 Amperite.

X-1.—1-A.

Y.—Zosley Switch.

# A Screen-grid Short-wave CONVERTER

(By PERRY S. GRAFFAM.)

*Constructional details and diagrams for a simple, short-wave converter employing a screen-grid valve, which can be attached to an ordinary broadcast receiver. Used in this manner, it will tune in all the principal short-wave stations in the world.*

AS the one stage R.F. with regenerative detector rapidly became the outstanding circuit arrangement in home-built receivers during the great broadcast building era, so has a similar circuit won over the short-wave field. With this type of set just beginning to be appreciated, vast numbers of parts have been sold for these receivers.

The circuit used in short waves, however, uses an untuned input rather than a tuned aerial circuit, and in this way differs from the accepted broadcast practice. The screen-grid valve serves several purposes. It permits the use of an antenna of any length without adjustment; it gives some amplification to the incoming signal; and, most important of all, it prevents squeals from going out to the neighboring sets. This latter point may not impress some of our recent listeners, but those who listened in two or more years ago will never forget the so-called "blooming" that characterised every evening's entertainment in those days. With the great increase in the number of short-wave receivers this same condition will occur in those frequencies unless a blocking valve is used to prevent regeneration radiation.

A general impression among many people, not familiar with short-waves, is that a completely new receiver must be built to get the myriad programmes on the air down there. This is not the case, however. The short-wave receiver differs only in the tuning section. From the detector on, the arrangement is identical with any broadcast receiver.

A simple converter which will permit one to use the most popular of short-wave cir-

## Parts Required

- 1 Radiokes screen-grid S.W. coil kit.
- 1 Clarostat grid leak.
- 1 8 meg. leak.
- 2 .5 mfd. by-pass condensers.
- 1 2000 ohm. resistance.
- 1 .00025 condenser.
- 1 .001 condenser.
- 1 622 Amperite.
- 1 1-A Amperite.
- 1 Zosley switch.
- 1 44/2 screen-grid valve.
- 1 4-volt detector valve.

"Wireless Weekly" was one of the first of wireless journals in Australia to recognise the value of the short-wave adaptor to enable the listener with the ordinary broadcast receiver to join in the delights of short wave reception with a minimum of fuss and trouble. A short-wave adaptor must be well made, as well made as a complete short-wave receiver. It naturally follows that a screen-grid adaptor is still more efficient.

circuits, in connection with the usual broadcast receiver, is described in the following. After completing it, one merely has to remove the detector valve and insert the plug

of the converter in its place. The detector valve is then placed in the converter, and one can then tune-in virtually around the world.

It hardly seems necessary to go into any specific constructional details, for the accompanying simplified and schematic diagrams tell the whole story. Only few parts are needed, and their placement is indicated.

Any discarded valve may be used for the plug-in socket base. The glass bulb and stem should be broken, and the other material in the base cleaned out. The four brass tips, embedded in the base, will come into view, and the necessary connecting leads should be soldered to them. The plug may then be filled with wax. This takes care of three of the four external leads to the set. The 135-volt connection is made to a binding post at the rear of the unit.

Readers have perhaps little idea of the radio sport that lies in wait for them down on the shorter waves. Up until this year there was so little to listen to except code that a set hardly seemed worth while; but now any number of stations are broadcasting on these wave lengths. Stations all over the North American continent are heard during daylight hours, some of which cannot be heard even at night time on a good broadcast receiver.

However, the real thrill comes with trans-oceanic reception. 5SW, the British Broadcasting Company's station at Chelmsford, England, can be picked up, and, under favorable conditions may be brought up to loud speaker strength. This station usually closes with an hour of dance music, and when you can clearly hear the music, dancers'

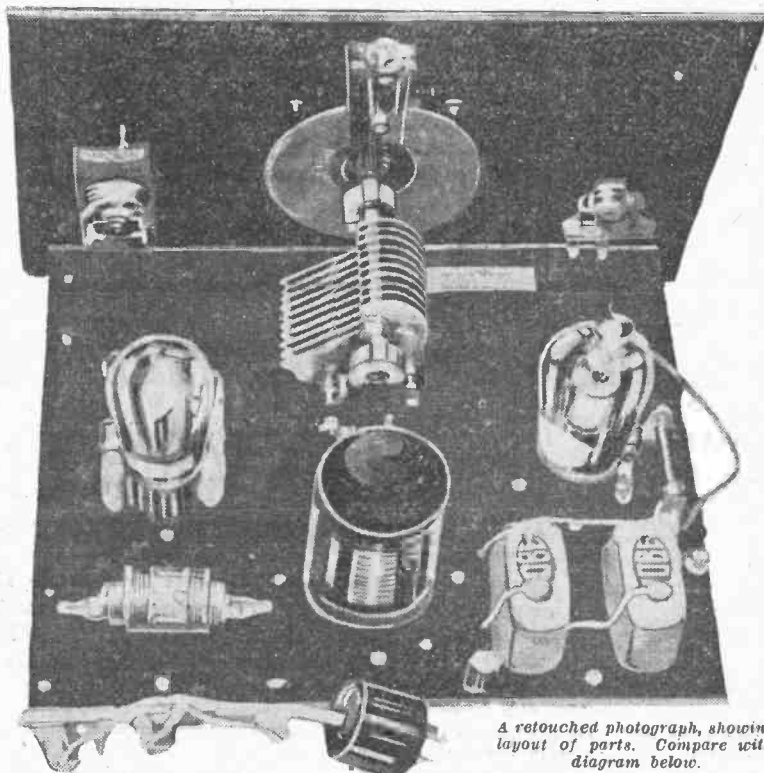
# USED IN CONNECTION WITH A BROADCAST SET BRINGS IN PCJ AND 5SW

voices, and the hand-clapping for encores from the Savoy Hotel in London, right from your own loud speaker, you are getting real radio 'thrills.

Now Germany is just completing a powerful short-wave station with which it is expected to broadcast excellent programmes to the whole world. A particularly strong station is PCJ in Eindhoven, Holland, which puts on regular programmes for use in the British Dominions and other remote points. This station is more widely heard than any other short-wave station in the world, according to many reports. The thoughts of getting distant places like these usually conjure up visions of super-priced receivers using fourteen valves, and totally out of the reach of the average fan to build, buy, or operate. However, thanks to the gift of short waves, this is not the case. Just build up the little simple unit described herewith; connect it to your present radio-cast receiver, and then, like Monte Cristo, you can say: "The world is mine!"

### Talented Pianist

COVERS of music will be glad to learn that the brilliant young Queensland pianist, Victor Stephenson, will be giving another recital from 3AR on January 24. It will be remembered that this talented young artist is a Double Ormond Exhibitionist (with honors) and is the only young student to receive a musical education under the direction of the committee of the Returned Soldiers' Association.



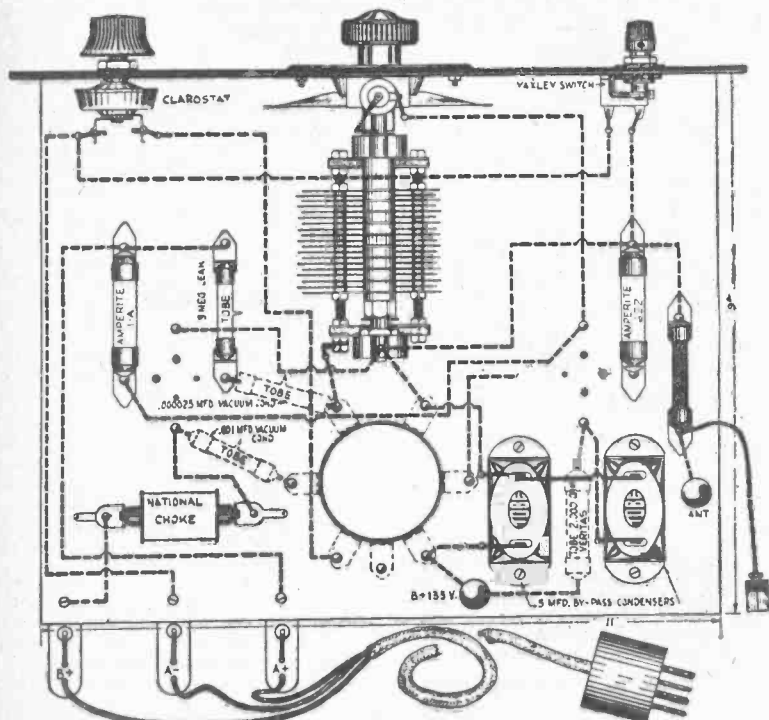
A retouched photograph, showing layout of parts. Compare with diagram below.

### 2UW PROVIDES TENNIS MUSIC

CLASS station, 2UW, in Paling's Building, Ash Street, Sydney, is making great headway since its establishment in its new home about three months ago. The directors of Radio Broadcasting, Limited, which controls this service, were determined at the outset to give listeners, not a hotch-potch of broadcasting, but superior programmes of superior music. In this it has gradually succeeded and from a dozen requests nightly the station has received as many as 100 in one evening.

On Sundays the calls are especially heavy, which is evidence that many persons prefer good music to church services. In addition to 'phone calls, letters are flowing in expressing the thanks of the listeners, and adding congratulations on the transmission and the character of the programmes.

Mr. L. S. Beckett, the well-known Sydney dentist, wrote to 2UW last week that every evening when he and his party go to the tennis courts nearby his residence in Raglan Street, Mosman, he takes his portable three-valve set, and receives at excellent loud speaker strength the musical programme till closing down time. "Thus," added Mr. Beckett, "we enjoy your delightful music out in the open while the tennis is going on. Carry on the good work, I am sure there must be thousands of listeners who prefer your musical programmes to other stations. Good luck!"



The wiring diagram. Components shown in dotted lines indicate sub-panel position.

# The Screen-grid Short Wave Converter

## Calls for RADIOKES Components

*Make up this excellent Adaptor, and hear the World's Short-wave Broadcasts through your favorite receiver.*

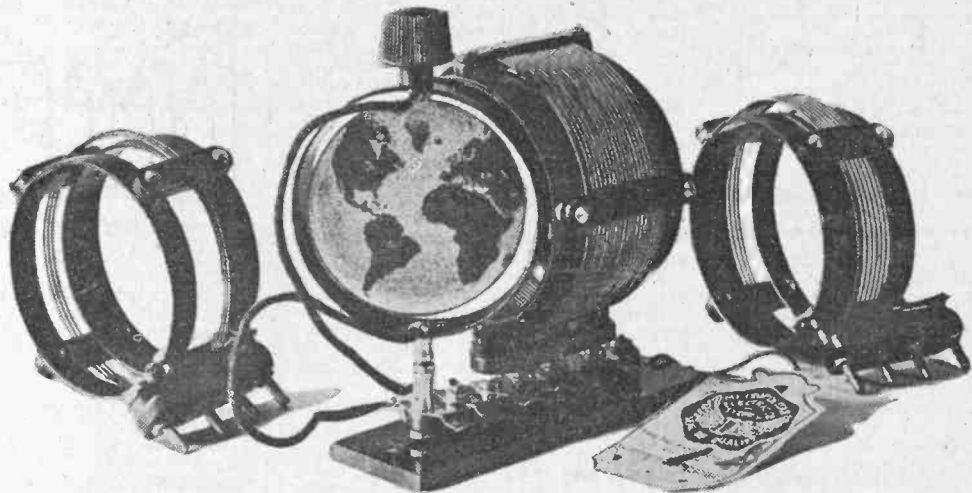
The Heart of this converter is the RADIOKES SCREEN-GRID SHORT-WAVE TUNER KIT, which is truly a masterpiece of coil kit construction.

The mounting base accommodates the six-pin coil mounts, which fit into sockets with a positive contact and a delightful "velvety" action, the result of a well-designed, accurate, silver spring system.

This Kit comprises four interchangeable tuners and a mounting base designed to cover the wavelength range as specified in accompanying constructional article, each tuner being of small diameter and precisely wound on a rugged skeleton of genuine Bakelite.

The Coils are designed and constructed so as to exhibit the lowest possible H.F. losses—an important feature, as skeleton construction practically eliminates dielectric losses which are usually present in S.W. Coils, wound on solid tubing.

The entire Kit is beautifully finished, and has plainly designated screw-terminals, which in conjunction with horizontal mounting, makes for easy assembly and wiring in set, and the complete Kit sells for the moderate price of 72/6.



THE RADIOKES STANDARD SHORT-WAVE TUNER KIT still leads the field, and is the finest Kit for use with standard Triode Tubes, and for amateur work. This Kit has been adopted as standard throughout the length and breadth of Australasia, and is still adding many enthusiastic fans to its long list of admirers.

It covers a range of 15 to 130 metres, using three interchangeable induction units, with a mounting base, which carries an adjustable antenna coupling coil, and 55/- is the charge for this complete kit.

The Screen GRID S.W. Converter calls for use of Amperite and Radiokes R.F. Chokes, in its construction, if finest results are desired.

Amperite to supply the correct filament voltage to the various tubes at all times, and to simplify the set construction.

**PRICE, 6/- EACH.**

RADIOKES R.F. CHOKES, because they are now recognised by "all who know" as a necessity in all modern receivers. By virtue of their unique construction these Chokes are equally efficient on the Broadcast Band and down on the ultra short waves. Small in size, and ruggedly constructed.

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or

**YORK HOUSE,**

Little Collins St., Melbourne.

# PROVING RADIO!

No. 4 This week a step-down transformer and rectifier for use on A.C. mains is described. A polarity indicator is also explained, as is the method of decomposing water and electroplating.

**JUDGING** by the letters I have received many readers are anxiously waiting for the circuit diagram of the step-down transformer and rectifier for use on the A.C. mains. Before going further, I will just attract your attention to Fig. 1, where you will see how simple this circuit is.

The transformer is represented by the first coil, the three straight lines, and the next coil. The first coil represents the primary of the transformer, the straight lines represent the transformer core, and the last coil is the secondary. The terminals shown on

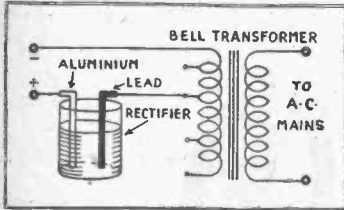


Fig. 1.

the secondary are for use when different output voltages are required. We shall use the six-volt tapping, as explained last week.

The rectifying jar contains two elements: one of lead and the other of aluminium. The latter is always representative of positive current. Instructions on building this step-down transformer and rectifier appeared last week.

We have first (before we can use the combination) to "form" the rectifier. The reason of this, is because unless the rectifier was formed, it would constitute a "short" across the secondary of the transformer. To form the rectifier, you must place the electrolyte in the jar, and connect up the transformer primary to the mains, first placing an ordinary electric lamp in series with one of the leads to the mains, as shown in Fig. 2. This arrangement has to be made be-

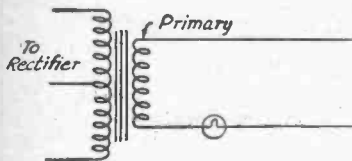


Fig. 2.

cause the unformed jar will not rectify effectively until the film is partially formed. If the lamp is not connected, the secondary of the transformer will burn out. As the rectifier begins to form, the lamp will get dimmer, and an additional one must be added every time the lamps grow dim, until the rectifier will stand the full voltage. When I formed my jar, I found that only three lamps were necessary. The house lamps may be used (providing you agree to buy new ones should you have an accident!).

If there is sparking during forming use an extra lamp, as otherwise the film on the aluminium plate will be destroyed as fast as it is made. A well formed aluminium electrode will be smooth, and have a thin, dull

white surface. After several hours' forming the rectifier will keep in good condition with occasional use.

An aluminium oxide film and a gas film are responsible for the rectifying action. If there is any appreciable heating during forming, cut off the current and allow the rectifier to cool.

### POLARITY INDICATOR.

This week, we shall commence our experiments by making a simple polarity indicator. Take a glass tube (the writer got his from Selby's) about 1-8 in. diameter and three inches long, and bend it into a U shape. A Bunsen Burner may be used, or Selby's will probably do this job for you. Fill this tube with the solution made by dissolving a little household phenol in alcohol, when the mixture will be blue. Place a piece of thick wire in each end of the tube so that the ends are 1-4 in. apart at the bottom of the tube, then with the aid of a blow-lamp, or Bunsen Burner, seal the two open tops of the tube. If the reader has any difficulty in procuring the heating source, he may fill up the tops with sealing wax.

The two outside ends of the wire should be fastened to terminals, and it would be advisable, for rigidity's sake to fasten the indicator to a small baseboard about three inches square, by means of clips. If the baseboard is hollowed out to hold the indicator firmly, so much the better.

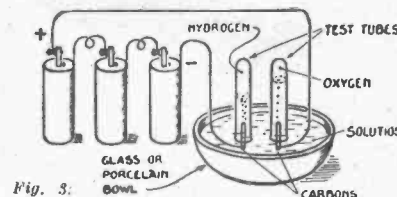


Fig. 3.

If you desire to find the polarity of a battery, merely connect the two indicator leads to the battery, when the solution around the negative terminal will turn red, whilst the other remains blue.

### DECOMPOSING WATER.

Now I promised to tell you how you can decompose water. Water (as you may know) is formed of two gases, and these are oxygen and hydrogen. Water can be decomposed by means of an electric current, and so separated into the gases of which it is formed.

To do this, get two pieces of carbon, each two inches long (a large piece, about 9 in. long can be bought from the B.G.E. Co.), twist the end of a piece of wire round the end of each one, and connect these two leads to the negative and positive terminals of your power supply. Next, procure two test tubes (any chemist can supply, or if you have difficulty, try Selby's), and a shallow glass vessel (a finger-bowl will serve the purpose), then fill the bowl with water into which you have dissolved a teaspoonful of salt in order to make the water a better conductor. (From this you will learn that sea or salt water offers less resistance to a current of electricity than is the case with fresh water.)

This done, fill the test tubes up with water, right to the tops, then invert them into the salt water with the carbon electrodes in them, so that they will still be full of water. (See Fig. 3.)

When the current flows through the solution, you will see bubbles of gas form on each side of the carbon electrodes, and these will rise to the top of the tubes. At the same time, you will see the water in each tube fall, and finally you will observe that the water falls twice as fast in one tube than it does in the other. This is because water is composed of two parts of hydrogen to one of oxygen by volume. The

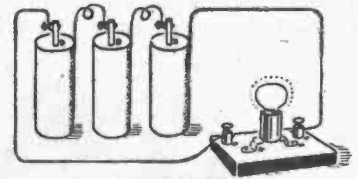


Fig. 4.

hydrogen is set free by the negative electrode, or cathode, as it is called (remember the negative is the cathode), and the oxygen is liberated at the positive electrode, which is always known as the anode.

To PROVE that the tube contains oxygen, lift it out of the water (with the mouth held down), then hold a lighted match to it, when the hydrogen will ignite, and explode with a loud crack.

To PROVE that there is oxygen in the remaining tube, light a match, and when it is well burning, blow it out, and swiftly place it in the tube, when it will instantly burst into flame.

### ELECTRIC LIGHT PLANT.

Now, about that electric light plant. We shall derive our power from any of the sources mentioned in last week's issue, i.e., A.C. mains, dynamo, or batteries. A torch

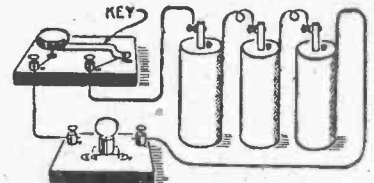


Fig. 5.

globe is fitted into a holder (obtainable at any electricians), and this holder is screwed to a small baseboard. Now connect one side of your four-volt battery to one side of the lamp socket, and the remaining side of the socket to the remaining side of the battery, when the lamp will immediately light. As the lamp (small as it is) takes quite a lot of current—and we shall require our batteries for quite a number of other experiments—do not leave the light connected too long.

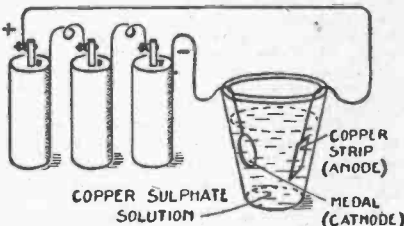


You have probably often wondered (whilst at some concert or theatre where lights are faded into each other, dimmed, then brightened again), how this is done. If you have studied these series, you will remember that I have told you that water has resistance, and salt water has less resistance than fresh water. We shall use this idea then, when carrying out the experiment. First dissolve a teaspoonful of common salt in a tumbler of water (preferably warm) and immerse two carbon rods in it. Connect one carbon with the positive terminal of your battery, and the other carbon to one terminal of the lamp socket. The remaining side of the battery should now be connected to the other side of the lamp socket. Now, by either raising one of the carbons, or varying the gap between the two, the light will grow dimmer as the resistance is increased, and brighter as the distance (and resistance) is decreased.

**FLASH-LIGHT TELEGRAPH.**

With the apparatus you have, an efficient flash-light telegraph can be made, which will send signals a considerable distance. The only addition necessary, is a Morse key, which can be bought for a few shillings, and will be of use later on. Connect the key, batteries, and lamp as shown in Fig. 4, i.e., one side of the key to one side of the battery; the other side of the battery to one side of the lamp; the other side of the lamp to the remaining side of the key. Now you will find that on depressing the key, the lamp will light, and in this way Morse signals may be sent for a considerable distance, especially if a reflector be placed behind the lamp, facing the direction in which it is proposed to transmit the signals. An ordinary bell push may be used in lieu of the key.

**ELECTROPLATE.**



The next instruction is how to electroplate with copper. You will need an old medal, a silver coin, or other similar object that is made of brass or silver. This should be boiled in vinegar or a solution of sodium bicarbonate for several minutes, in order to remove all dirt and grease. When the object is clean, connect it by a thick piece of wire to the negative terminal of your power supply. Next, hang a perfectly clean strip of copper on to the positive terminal of your battery, by means of another piece of stout connecting wire. Next dissolve three teaspoonfuls of copper sulphate (which you can obtain from the chemist's) in a tumbler of distilled water, such as that used in wet batteries (rain water collected in stone jars will be suitable), then immerse the object to be plated (which is the cathode, being negative), in the solution, and the strip of copper, which is the anode (being positive), should also be placed in the solution.

Leave the bath (as it is called) for a few minutes, then you will find that a dull red deposit has formed on the anode. This is the copper deposit. If the object is left in this bath, the deposit will become plated all over, and may be as thick as required. If you want to give the object a bright finish, rub it lightly with a lead-pencil rubber. An ink rubber, containing too much sand, would spoil the plating by scratching it.

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## A Screen Grid Short Wave Convertor

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| 1 Radiok's screen grid Kit, £2 15 0 | 1 622 Amperite ..... | 6 0    |
| 1 grid leak, fixed, .....           | 1 IA Amperite .....  | 6 0    |
| 1 8 meg. leak .....                 | 1 Switch .....       | 2 6    |
| 2 .5 condenser .....                | 1 A442 Valve .....   | 1 10 0 |
| 1 2000 ohm resistance .....         | 1 A415 Valve .....   | 15 0   |
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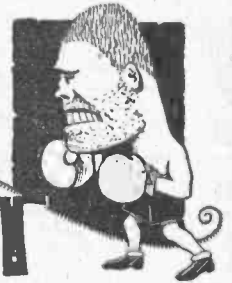
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'PHONE, B 2261.

# HITTING BELOW the BROADCAST BELT



**S**ULTRY evenings, with the lightning playing fitfully over the horizon are not conducive to keeping a good short-wave log at present. Not only do one's earphones reveal a perfect bedlam of noise, but, in addition, the average wireless shack is infested with weird and wonderful insects which proceed to play hide and seek around one's collar, to say nothing of the interminable mosquito, which, unfortunately, cannot be heard while the phones are clamped over the ears, but which makes its presence very much felt. I think it must have been one of the wartime variety which got me—the kind of mosquito which appears to wear a football jersey—for I found myself faced with a relapse of the invincible malaria germ, and so I have had to leave the lure of the distant carrier-wave, and regale myself with the brothers, Quinine and Aspirin. Very kindly, that staunch user of the All-Empire receiver, Mr. Russell Crane, who is a well-known short-wave enthusiast, has supplied me with his observations during my forced inactivity. Mr. Russell Crane pursues his short-wave wanderings, mostly at Cronulla, N.S.W., where his following log was made:—

#### Reception at Cronulla, January 3rd, 1929.

Conditions have not been very good; in fact, I have been looking through my notes of 12 months ago, and find that then I was doing as well with an ordinary three-valver as I am able to do now with the most modern circuit and valves. One can only hope for better conditions during the coming year.

#### Thursday, January 3rd.

Evening. Neither Java nor PCLL working.

8.40: VK2JQ working with VK2RC good loud speaker, but a little muffled. Wave about 42 metres.

10.30: G5SW only fair reception, moderate to loud earphone strength. There was a lot of surging and bad periods of fading, with a heavy background of mush, but no Morse interference. Could not quite get bulletin re Kline's condition.

#### Friday morning, January 4th.

3.50 a.m.: 7LO Nairobi, South Africa, good earphone (unable to use speaker on account of household being asleep); static and Morse interfering slightly. At 4 a.m. heard 9 o'clock signal chimes, then educational record and music. The announcer at 7LO has a particularly pleasing and clear voice.

4.5 a.m.: G5SW testing. Strong but touchy.

4.10 a.m.: Dutch duplex telephony. PCLL strong, but touchy. Java good strength.

4.15 a.m.: PCJJ. Band music about the same strength as 7LO, and quite free from interference. New announcer. English very clear, with suggestion of American accent.

4.25 a.m.: 7LO still going strong. The best station on the air so far this morning. Closed down at 5 a.m.

4.55 a.m.: PCJ. This station now very strong, but with a slight background of

Morse interference. A really good transmission.

5.5 a.m.: G5SW very good strength now. PCJJ just a little stronger; clearer than 5SW, who still has a heavy surge.

5.15 a.m.: London, 7.15 p.m., The King has passed a restless night, and there is no change in his Majesty's condition. Signed by the usual three physicians. 5SW is now very loud and clear, music followed the Bulletin almost perfect, and not a little touchy.

5.30 a.m.: Nothing to choose now between London and Holland. Both good loud speaker strength and perfectly clear.

5.45 a.m.: I now have two sets working. One which is slightly less strong than the other I have on the outside aerial. The stronger set is connected to a short inside aerial just from side to side of my bedroom. I have two pairs of 'phones on my head, and

#### PCJ

*In order to conform with the recent Washington Radio Conference regulations, the famous Philips short-wave station PCJJ relinquished its old call sign on January 5.*

*Henceforth the station will be known as PCJ.*

find that the two stations are almost identical in strength. PCJ has singing and 5SW a talk on wood block color printz. An indication that the stations are not touchy is that very often it is not wise to touch the 'phones with the hands when a short wave station is being received, but here I am with two pairs of 'phones touching each other and yet I am getting stable reception, each receiver and each station.

5.50 a.m.: Put both sets on loud speakers at the same time. 5SW slightly the louder.

5.55 a.m.: Surging and fading both sets. 5SW singing "I got shoes" PCJ announcing the last item of programme. Both stations full earphone strength.

6 a.m.: 5SW announcing further items. Just audible loud speaker, and PCJ signing off "until to-night when we will have a special transmission, etc."

6.10 a.m.: 5SW announcing further items. Studio play very clear, and incidental songs very good.

6.25 a.m.: Play ended a very good item. Could copy 100 per cent. Announcement of next item strong "More of Alfred Reynolds' works." Play followed. Every word clear.

6.30 a.m.: Music excellent. Phantom hornpipe.

6.45 a.m.: Very fair strength on loud speaker.

7 to 7.15 a.m.: Not transmitting.

7.20 to 7.45 a.m.: Weak loud speaker. Bulletin: "No change in His Majesty's condition." Still copied on speaker.

8 a.m.: Weak carrier. Nothing else. Looked for PCJ but could not get even the carrier all day. Same applies to Saturday's transmission, which is supposed to be made from 10 a.m. to 4 p.m. Sydney time. The above indicates that at the right time PCJ and 5SW are about equal in every way at this time of the year.

This concludes this short wave telephony log, and it gives readers a fair idea of what to expect at this time of the year.

#### On 20 Metres

Now you VK's sit tight and hold your 'phones on 20 metres, for VK2NO has some interesting information for you. Just as I expected, the 20 metre band is still the same old cranky never-can-tell waveband, but still the most interesting of all, and, may the Gods be praised, that the "ham" has a portion of it reserved for him. I had a visitor last week in the shape of VK3CX. This genial personality blew in to tell me that he had noted my appeal to give 20 metres a fair trial, and had tried it with the following result. On 21 metres with an input of 11 watts to a split Ultra Audion circuit, VK3CX has for a few nights worked South African A42 and Indian 5VX every night at 11 p.m.

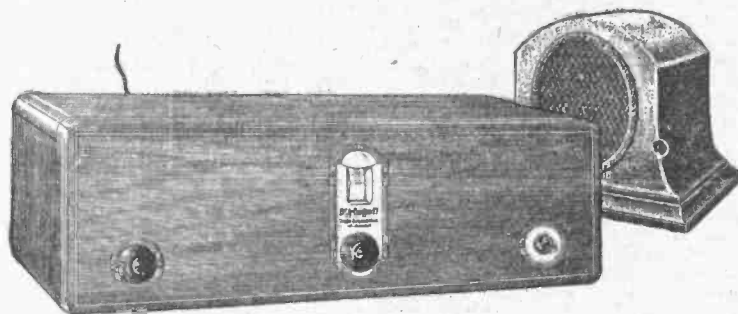
He kept on calling until at last he heard what he wanted—a "ham" signal peeping out his own call sign in between the spluttering ICW commercials. His reports from the South African and Indian were R6 and R7. How now, you condemners and ignorers of 20 metres? There seems still to be a misguided idea that the 20 metre waveband is solely and wholly a daylight band. I once thought so myself until a year or so ago I found I could work New Zealand steadily from 7 p.m. until 11 p.m. Sydney time, and all those daylight ideas came crashing when H.M.A.S. Adelaide told me at the time she lay at Malaita in the Solomons that the puny 20 metre signal from 2NO was at the time the most consistent heard there.

Come along boys. Leave this sorting out of the 42 metre band for a while and get down among the interesting frequencies. We are in a very different position from that of American "hams" geographically, and for this reason the 20 metre band is really of more use to us. Some say "Why this DX business, etc?" By all means use your 42 metre band for local and inter-State work, but it is by no means impossible on 20 metres and when the DX breaks through—well, it always has been and always will be intensely interesting, and where is the experimental operator who if he hears a European calling him will ignore the call?

#### Beam to Wilkins

THERE has been some uncertainty in the minds of those desirous of sending messages to Sir George Wilkins, but Amalgamated Wireless are able to announce that they are now in a position to accept messages for the expedition. Messages should be routed "VIA BEAM AND R.C.A., SAN FRANCISCO." the charge being 2/10½ per word.

# New Prices for RCA Radio



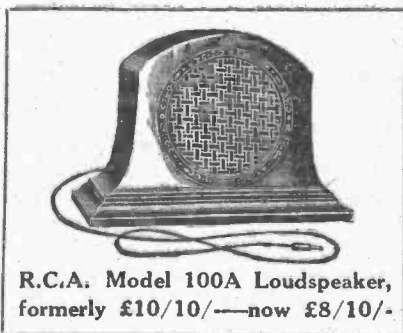
## RCA 6 Valve Light Socket Receiver

Complete with Model 100A Loudspeaker

Formerly £75—NOW £65

Following upon huge world-wide sales for R.C.A. Receivers and Loudspeakers, the Radio Corporation of America has announced a reduction in prices, made possible by massed production economies.

Light Socket Radio, with its wonderful conveniences, is now within the reach of all. Resign from the "battery porters." No more carrying heavy batteries to and from Service Stations. Just plug into a power point or electric light socket. Snap a switch—turn a single dial. R. C. A. Light Socket Receiver is twelve months ahead of anything yet developed.



R.C.A. Model 100A Loudspeaker, formerly £10/10/—now £8/10/-

The famous R.C.A. Loudspeaker 100A is standard equipment with this Receiver—but it can be purchased separately. It makes any good radio set better, reproducing the whole tonal range from the crash of massed bands to the ripple of a flute with wonderful clarity and fidelity.

R.C.A. Radio can be heard at all the best radio dealers.

### AUSTRALIAN

**GENERAL ELECTRIC**  
*Australian General Electric Company, Ltd.*

93-95 Clarence Street, Sydney.

53 King Street,  
NEWCASTLE.

Civic Centre,  
CANBERRA.

611 Dean Street,  
ALBURY.

# List of World's Broadcasting Stations Which Can be Received in Australia on Long and Short Waves

AUSTRALIA		Metres. Watts.		Metres. Watts.		Metres. Watts.		
New South Wales.						JAPAN.		
	Metres. Watts.							
2FC—N.S.W. Broadcasting Co., Ltd. Market St., Sydney, 0700-2230	442 5000	ness College, Melbourne	255 500	2102. Silent Tues.	308 500	JOAK—Tokio Central Broadcasting Co., Tokyo, Japan. Jap. stations received best about midnight on Sunday	276 1000	
2BL—N.S.W. Broadcasting Co., Ltd., Market St., Sydney, 0800-2330	353 5000	Queensland.		4YA—Radio Broadcasting Co. of New Zealand, Dunedin, 1700-2200. Silent days Mon. and Thurs.	463 750	JOBK—Osaka Central Broadcasting Co., Osaka	285 1000	
2GB—Theosophical Broadcasting Station, 29 Bligh St., Sydney, 1000-2200	316 5000	4QG—Queensland Govt. Radio Service, Brisbane, 0800-2200	385 5000	FOREIGN		JOCK—Nagoya Central Broadcasting Co., Nagoya	350 1000	
2KY—Trades and Labour Council, Goulburn St., Sydney, 0900-2200	280 1500	4GR—Gold Radio Service, Margaret St., Toowoomba	294 100	GREAT BRITAIN.		JODK—Kajio Broadcasting Co., Kajo, Japan	345 1000	
2UW—Radio Broadcasting Ltd., Paling's Building, Ash St., Sydney, 1230-2230	267 500	South Australia		2LO—British Broadcasting Co., Savoy Hill, London, 1900-0350		361.4 3000	DUTCH EAST INDIES.	
2UE—Electrical Utilities, Ltd., 619 George St., Sydney, 0730-2330	293 250	5CI—Central Broadcasters, Ltd., 58 Franklin St., Adelaide, 1100-2310	395 5000	5XX—British Broadcasting Co., Davenport, 1900-0350	1604.3 5000	JFC—Bataviasche Radio, Java, Batavia		320 40
2MK—Mockler Bros., Ltd., Hawick St., Bathurst	275 250	5DN—SDN Pty. Ltd., 2-4 Montpelier St., Parkside	313 600	UNITED STATES.		PHILIPPINE ISLANDS.		
2HD—E. A. Douglas, King St., Newcastle	288 100	5KA—Sport Radio, Ltd., 51 Kintore Ave., Prospect	260 1000	KDKA—Westinghouse Electric and Manufacturing Co., E. Pittsburgh, Pa.	216.6 50000	KZRM—Radio Corp. of the Philippines, Manila	413 1000	
2BE—Burgin Electric Co., 340 Kent St., Sydney. At present off the air	316 100	West Australia.		KFI—Earle C. Anthony Inc., 1000 So. Hope St., Los Angeles	468.5 5000	KZKZ—Radio Corp. of the Philippines, Manila	270 500	
2LO—Dominions Broadcasting Co., 120A Russell St., Melbourne, 0715-2340	371 5000	6WF—Westralian Farmers, Ltd., 559 Wellington St., Perth, 1230-2230	1250 8000	KGO—General Electric Co., Ltd., Oakland, California	384.4 5000	KZIB—Radio Corp. of the Philippines, Manila	260 500	
2AR—Dominions Broadcasting Co., 120A Russell St., Melbourne, 1000-2200	484 1600	7ZL—Tasmanian Broadcasters Pty., 95 Elizabeth St., Hobart, 1130-2204	536 3000	KOA—General Electric Co., Ltd., 1370 Krameria St., Denver Colorado	325.9 5000	INDIA.		
2UZ—O. J. Nilson and Co., Bourke St., Melbourne	319 100	NEW ZEALAND.		WEAF—National Broadcasting Co., 1950 Broadway, New York	491.5 50000	7CA—Indian Broadcasting Co., Calcutta. Indian stations received best about 1.30 a.m. Monday.	370.4 3000	
2DB—Druleigh Business College, Melbourne, 0715-2340	371 5000	1YA—Radio Broadcasting Co. of New Zealand, 419 Queen St., Auckland, 1500-2203. Silent day Mon.	333 500	WGY—General Electric Co., So. Scenectady, N.Y.	378.5 50000	7BY—Indian Broadcasting Co., Bombay	357.3 3000	
2AR—Dominions Broadcasting Co., 120A Russell St., Melbourne, 1000-2200	484 1600	2YA—Radio Broadcasting Co. of New Zealand, Wellington, 1500-2200. Silent day Wed.	420 5000	WJZ—National Broadcasting Co., 125 Broadway, New York	554.3 30000	SOUTH AFRICA.		
2UZ—O. J. Nilson and Co., Bourke St., Melbourne	319 100	2YA—Radio Broadcasting Co. of New Zealand, Christchurch, 1500-2200	420 5000	EUROPE.		WAMG—Africa Broadcasting Assn., Cape Town	375 1500	
2DB—Druleigh Business College, Melbourne, 0715-2340	371 5000			FL—Eiffel Tower, Paris, France	2650 5000	JB—African Broadcasting Assn., Johannesburg	450 500	

## International Short Wave Stations: Times Stated are S.M.T.

AUSTRALIA.		Metres.		Metres.		Metres.		Metres.	
2ME—A.W.A. (Syd.), relays 2FC, times irregular, usually Mon. from 0300-0600	28.5	from 0930	66.04	2400 Sat., 0100-0400 Sun.	21	2300 Mon., 0620-0700. Wed., 0900-0930, Sun. Picture transmissions, 0900-1100. Tues. and Sat.	42.12	AUSTRIA.	
2YG—Ray Allison (Syd.), relays 2BL, times various	32.5	WBK	70	PCPP—Kootwijk, Wed. and Fri., 0300-0600; Sat., 0900-2400; Sun., 0100-0400	27	OKK2—Vienna, 70		SPAIN.	
2ME—A.W.A. (Melb.), relays 3LO, times various. Usually heard about 0430-0530	33	2XAF—Scheneectady, Tues. 0900-1500; Wed. 0900-1430; Fri., 0900-1500; Sun., 0900-1500	32.4	PCUI—The Hague, 0300-0600, Wed. and Fri.; 0900-2400, Sat.; 0100-0400, Sun.	42	OKK2—Vienna, Mon., 0400-1100	70	FRANCE.	
2AG—W. E. Coxon (Perth), relays 6WF, times various. Usually 2130-0200 daily	32.9	WLW—Ohio, 0900, except Sat. and Mon.	62.02	UNION OF SOVIET SOCIALIST REPUBLICS.		Casablanca		51	
GREAT BRITAIN.		KDKA—East Pittsburgh, Daily, from 0800	45.35, 45	RFN—U.S.S.R., Moscow	29, 50, 60	GC—Paris, 61			
1SW—Marconi Co. (London), relays 2LO, 0400-0800, daily, except Sun. and Mon. From 0330 on alternate Saturdays and 2100-2230 daily	25	WIZ—New Brunswick, Irregular, usually after 0930	61.06	RPM—U.S.S.R., Siberia	60, 30	YL—Lyon, Daily, 0250-0330	40, 20		
2YT—Marconi Radio, Faldhu, Times various 25, 32	92.94	7XAO—Portland, Oregon, Daily from 0900-2300	53.54	IMI—Milan	45	FL—Paris, Time signals, 1755-0555	32		
2NM—Gerald Marcuse, Caterham, Surrey, 1700-0400-0600 (Sun), 1000, Thurs. and Sat.	32.5 28	2XG—Rocky Point, from 2400 Mon. and Fri.	16.02	IDA—Italy	33.8	FW—St. Assise, At odd times throughout day	14.28		
GLW—Beam Station, all times (Dorchester)	10.7	2XE—Richmond Hill, Relays WABC daily, from 0800	22.1	IMA—Rome, 0700 Sub.; 0300-0530, Mon.	34.5	Radio Vitis, Paris, 0700-0900	27		
GLQ—Beam Station, all times throughout day. (Ongar)	24.5	WOWO—Fort Wayne, Indiana, Relays Columbian stations daily, 0900	22.3	SOUTH AFRICA.		Radio Aken, France, Wed. and Sat., 0800-0915	39.75		
GBH—Beam Station, Grimsby (Beam Station). All times	25.9	8XX—E. Pittsburg, Relays KDKA, 0300-0600, Tues. and Wed.	26.8	JAPAN.		SWITZERLAND.			
UNITED STATES.		2XAG—New York, Telephone, irregular	26.92	JHBB—Ibarakiten, nightly	27.5	EH9XD—Zurich, Relay work, Tues., Thurs. and Sun.	35, 32		
2XAD—G.E.C., Scheneectady, Relays WGY, 0830-1300 Mon., 0400-0600 Tues. and Fri., 0800-1300 Thurs. and Sat.	21.96	2XAL—New York, Relays WRNY, 0900-1400 Tues.; 1100-1200 Wed.; 1200-1300 Sat.	30.91	JIPP—Tokyo	20	EH90C—Berne, 0500-0600, 32			
CXZAR—San Francisco, 1000, daily	33	8XA0—Detroit, Mich., Relays WJR daily	32	JIAA—Jwatsuki	79	JAVA.			
WJZ—Boundbrook, Relays	65.96	2XE—Brooklyn, Daily, 0900	64	JKZB—Tokio	20	ANF—Malabar	56		
9XU—Council Bluffs, Relays Columbian Broadcasting stations	61.05	2XE—New York, Relays WABC and WBOQ daily, 0900	58.5	AOJ—Nauen, Daily, 0.500	56.7	JFC—Batavia	22, 40		
2XBA—Newark, N.J., Relays WAM, 1000-1500 Wed., Fri. and Sun.	65.13	2XAA—Houston, Transatlantic telephony	22.99	POX—Nauen	70	ANDIR—Bandong	38.5		
6XFP—Cleveland, daily from 1500	65.04	INDO-CHINA.		POZ—Nauen, Press and news reports to ships 19	26.4	ANF—Malabar, 0340-0540, Wed. and Fri., 21.26	15.93		
6XAL—Ingwood, daily		HVA—Hanoi, No information available	31.85	AGA—Nauen, Press and news, daily	25.3	ANF—Malabar, 2240-2440, Sat.	17.4, 27, 32		
		HOLLAND.		AGC—Nauen, Throughout day	17.2	INDIA.			
		PCLL—Kootwijk, 2240-2400 Wed.; and from 0200 Thurs.	21.95	AFK—Doberitz, Tues., Thurs., Sat., 0500-0600 (Call signals like "Ar-Br-Car")	37.55, 67.65	VWZ—Poona, Beam station	16.3		
		PCMM—The Hague, Irregular	25	NORWAY.		FINLAND.			
		PCLJ—Eindhoven, 0900-0600, Wed. and Fri.; 0900-2400 Sat.; 0100-0400 Sun.	31.4	LGN—Bergen, 0900, Irregular	30, 31.25	SPM—Helsingfors, 1930-0630	47, 31.5		
		PCLT—Kootwijk, 0300-0600 Wed. and Fri.; 0900-		Stavenger, News bulletins, 0400	12.14	BELGIUM.			
				SWEDEN.		GG—Brussels, Almost daily, 0600-0900	34.7		
				7MK—Copenhagen, Irregular	39.2, 32.8	AOB—Brussels, Almost nightly, 0800-0900	43.6		
				TRL—Copenhagen, Tests irregularly after midnight	41	TUNIS.			
				DENMARK.		4RR—Constantine, Sun. only, 0800-1000	42.8		
				EDTRL—Copenhagen, 2130-		MOROCCO.			
						AIN—Casablanca, 1930-0630, Weather report	51		

# Local Programmes, Friday, January 18

## 2FC

### EARLY MORNING SESSION

Announcer: A. S. Cochrane.

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

### MORNING SESSION

Announcer: A. S. Cochrane.

10.0 a.m.: "Big Ben" and announcements. 10.2 a.m.: Pianoforte reproduction. 10.10 a.m.: "Sydney Morning Herald" news service. 10.25 a.m.: Studio music. 10.45 a.m.: A talk on "Home Cooking and Recipes," by Miss Ruth Furst. 11.0 a.m.: "Big Ben"; A.P.A. and Reuters' cable services. 11.5 a.m.: Close down.

### MIDDAY SESSION

Announcer: A. S. Cochrane.

12.0 noon: "Big Ben" and announcements. 12.1 p.m.: Stock Exchange, first call. 12.3 p.m.: Official weather forecast; rainfall. 12.5 p.m.: Studio music. 12.10 p.m.: Summary of news, "Sydney Morning Herald." 12.15 p.m.: Rugby wireless news. 12.18 p.m.: A reading. 12.30 p.m.: Studio music. 12.45 p.m.: Cricket scores, England v. Tasmania, played at Hobart. 12.47 p.m.: Studio music. 1.0 p.m.: "Big Ben." Weather intelligence. 1.3 p.m.: "Evening News" midday news service; Producers' Distributing Society's report. 1.20 p.m.: Studio music. 1.28 p.m.: Stock Exchange, second call. 1.30 p.m.: Popular studio music. 1.57: Cricket scores 2.0 p.m.: "Big Ben." Close down.

### AFTERNOON SESSION

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30 p.m.: Programme announcements. 2.32 p.m.: Educational session for the schools; musical session; talk. 3.0 p.m.: "Big Ben." Pianoforte reproduction. 3.15 p.m. Play by the students of MacCunn's School. 3.30 p.m.: Dawn Harding, mezzo (a) "Songs my Mother Taught Me" (Dvorak); (b) "The Princess" (Hinrichs). 3.37 p.m.: Popular music. 3.44 p.m.: Cricket scores, England v. Tasmania, played at Hobart. 3.45 p.m.: A reading. 4.0 p.m.: "Big Ben." Dawn Harding, mezzo soprano—(a) "You Lay so Still" (Taylor); (b) "The Birthday" (Taylor). 4.7 p.m.: Play by the students of MacCunn's School. 4.22 p.m.: From the Wentworth—The Wentworth Cafe Dance Orchestra, under the direction of Jimmy Elkins. 4.32 p.m.: From the Studio—Cricket results. 4.33 p.m.: Popular music. 5.0 p.m.: "Big Ben." Close down.

### EARLY EVENING SESSION

Announcer: A. S. Cochrane

5.40 p.m.: The Chimes of 2FC. 5.45 p.m.: The "Hello Man" conducts the Children's Session; letters and stories; music and entertainment. 6.10 p.m.: The Farmyard Five from Kookaburra Valley. 6.30 p.m.: Dalgely's market reports (wool, wheat, and stock). 6.40 p.m.: Fruit and vegetable markets. 6.43 p.m.: Stock Exchange information. 6.45 p.m.: Weather and shipping news. 6.50 p.m.: Late sporting news, told by the 2FC Racing Commissioner. 7.0 p.m.: "Big Ben." Late news service. 7.10 p.m.: Dinner music.

### EVENING SESSION

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40 p.m.: Programme announcements. 7.45 p.m.: Pianoforte reproduction. 7.52 p.m.: Cricket scores, England v. Tasmania. 7.54 p.m.: Popular music. 8.0 p.m.: "Big Ben." By courtesy of J. C. Williamson, Ltd., a transmission from one of Sydney's leading theatres will be arranged for the benefit of listeners. 9.0 p.m.: "Big Ben." Weather report. 9.1 p.m.: The Light Music Four—(a) Mamselle Modiste (Herbert). (b) "Fairy Blossoms" (Mueller). (c) "O Sole Mio" (Di Capua). 9.16 p.m.: Charles Lawrence and Rae Fos-

ter, vocal duets. 9.25 p.m.: Cliff Arnold, novelty pianist. 9.30 p.m.: Wally Baynes, comedian. 9.40 p.m.: The Light Music Four—(a) "Ariette" (Novello). (b) "Sulte Brevette" (Anthony). 9.55 p.m.: Charles Lawrence and Rae Foster, vocal duets. 10.5 p.m.: "Big Ben." Cliff Arnold, novelty pianist. 10.12 p.m.: Wally Baynes, comedian. 10.19 p.m.: The Light Music Four. 10.29 p.m.: To-morrow's programme. 10.30 p.m.: National Anthem.

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## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0 a.m.: G.P.O. clock and chimes; metropolitan weather report. 8.1 a.m.: State weather report. 8.2 a.m.: Studio music. 8.15 a.m.: G.P.O. clock and chimes; news from the "Daily Telegraph Pictorial." 8.25 a.m.: Studio music. 8.30 a.m.: G.P.O. clock and chimes; studio music. 8.35 a.m.: Information; mails; shipping, arrivals, departures, and sailings. 8.38 a.m.: News from the "Daily Telegraph Pictorial." 8.45 a.m.: G.P.O. clock and chimes; studio music. 9.0 a.m.: G.P.O. clock and chimes; studio music. 9.30 a.m.: Half an hour with silent friends. 10.0 a.m.: G.P.O. clock and chimes.

### MID-DAY SESSION.

Announcer: J. Knight Barnett.

11.0 a.m.: G.P.O. clock and chimes; 2BL Women's Sports Association session, conducted by Miss Gwen Varley. 11.30 a.m.: Advertising hints. 11.40 a.m.: Women's session, conducted by Mrs. Cranfield. 12.0 Noon: G.P.O. clock and chimes; special ocean forecast and weather report. 12.3 p.m.: Pianoforte reproduction. 12.30 p.m.: Shipping and mails. 12.35 p.m.: Market reports. 12.48 p.m.: "Sun" mid-day news service. 1.0 p.m.: Studio music. 1.30 p.m.: Talk to children, and special entertainment for children in hospital. 2.0 p.m.: G.P.O. clock and chimes.

### AFTERNOON SESSION.

Announcer: J. Knight Barnett.

Accompanist: Kathleen Roe.

3.45 p.m.: G.P.O. chimes; cricket scores.

England v. Tasmania. 3.46 p.m.: Pianoforte reproduction. 4.0 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.10 p.m.: From the Studio: Millie Hansen soprano—(a) "Just a Cottage Small" (Hanley); (b) "Annie Laurie" (Scotch ballad). 4.17 p.m.: Milton Sands, basso. 4.24 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.32 p.m.: From the studio: Cricket scores, England v. Tasmania. 4.33 p.m.: "Sun" news service. 4.40 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.50 p.m.: Millie Hansen, soprano. 4.57 p.m.: Milton Sands, basso. 5.4 p.m.: Pianoforte reproduction. 5.14 p.m.: "Sun" news service. 5.20 p.m.: Popular music. 5.35 p.m.: Producers' Distributing Society's poultry report. 5.37 p.m.: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcers: J. Knight Barnett, Basil Kirke.

5.40 p.m.: Children's session; music and entertainment. 6.0 p.m.: Letters and stories. 6.30 p.m.: "Sun" news and late sporting. 6.40 p.m.: Special dinner recital. 7.10 p.m.: Cricket scores, England v. Tasmania. 7.12 p.m.: Australian Mercantile Land and Finance Co.'s report; weather report and forecast, by courtesy of Government Meteorologist; Producers' Distributing Society's fruit and vegetable market report; grain and fodder report ("Sun"); dairy produce report ("Sun"). 7.25 p.m.: Mr. Pim and Miss Pam in advertising talks and nonsense. 7.55 p.m.: Programme and other announcements.

### EVENING SESSION.

Announcer: Basil Kirke.

Accompanist: G. Vern Barnett.

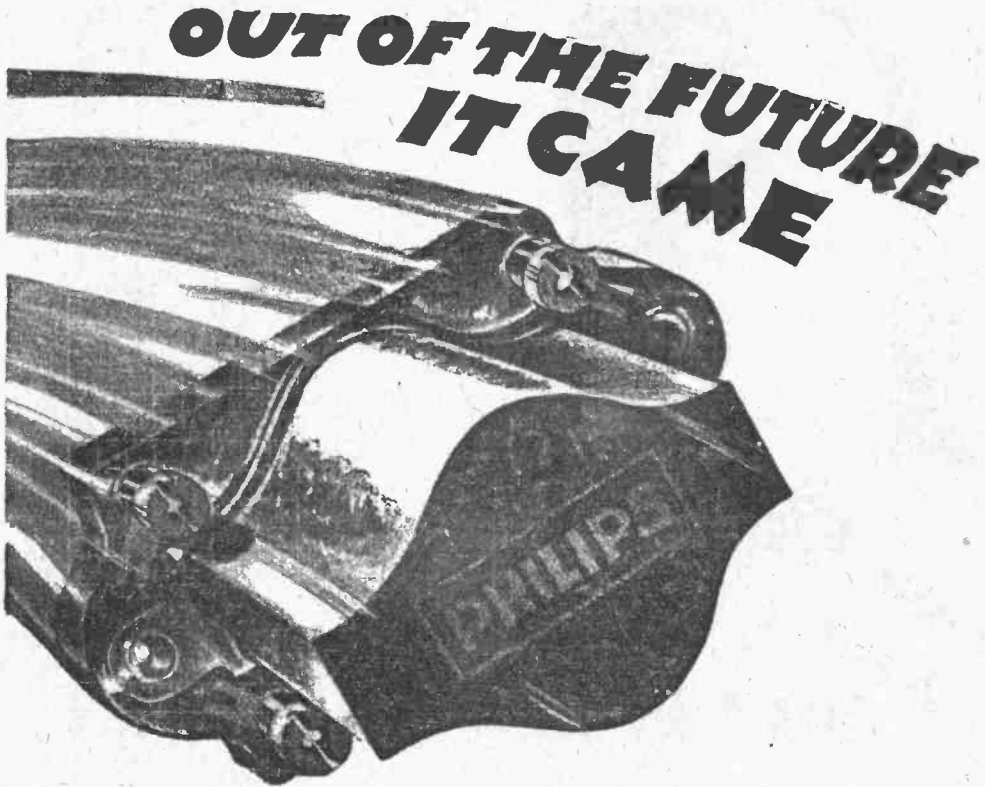
8.0 p.m.: G.P.O. clock and chimes; "Ye Merrie Trio." 8.10 p.m.: From the Arcadia Theatre, Chatswood, Nicholas Robins, at the Wur-litzer organ. 8.30 p.m.: From the Studio—The Savoyans Dance Band. 8.40 p.m.: "Ye Merrie Trio." 8.50 p.m.: The Savoyans Dance Band. 9.0 p.m.: G.P.O. clock and chimes; last-minute racing information, by C. R. Dexter. 9.15 p.m.: The Savoyans Dance Band. 9.25 p.m.: Les Austin, comedian. 9.32 p.m.: The Savoyans Dance Band. 9.42 p.m.: "Ye Merrie Trio." 9.52 p.m.: The Savoyans Dance Band. 10.2 p.m.: Les Austin, comedian. 10.10 p.m.: From the Arcadia Theatre, Chatswood, Nicholas Robins at the Wur-litzer organ. 10.30 p.m.: From the Studio—Late weather report. 10.32 p.m.: The Savoyans Dance Band. 10.57 p.m.: Resume of following day's programme. 10.59 p.m.: The Savoyans Dance Band. During the intervals between dance items "Sun" news will be given. 11.30 p.m.: National Anthem. Close down.

## 2GB

10 a.m.: Music. 10.10 a.m.: Happiness talk by A. E. Bennett. 10.20 a.m.: Music. 10.30 a.m.: Women's session, by Helen J. Beegling. 11.30 a.m.: Close down. 2.0 p.m.: Music. 2.5 p.m.: Women's Radio Service, by Mrs. Dorothy Jordan. 2.30 p.m.: Music. 3.15 p.m.: Close down. 5.30 p.m.: Children's session, by Uncle George. 7.0 p.m.: Stock and market reports, by New Zealand Loan and Mercantile Agency, Ltd. 7.15 p.m.: Music. 7.30 p.m.: Feature story. 8.0 p.m.: 2GB Instrumental Trio (Miss Ada Brook, Mr. Cecil Berry, Mr. Cedric Ashton). 8.15 p.m.: Songs by Miss Heather Kinnaird. 8.25 p.m.: A humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.30 p.m.: "Cello solos by Mr. Cedric Ashton. 8.40 p.m.: Songs by Mr. Clement Hosking. 8.50 p.m.: Violin solos, by Mr. Cecil Berry. 9.0 p.m.: Weather Report. 9.3 p.m.: Address. 9.15 p.m.: Songs by Miss Heather Kinnaird. 9.25 p.m.: Pianoforte solos, by Miss Mollie Jones. 9.35 p.m.: A humorous interlude, by Mr. Jack Win and Mr. Heath Burdock. 9.40 p.m.: 2GB Instrumental Trio. 9.55 p.m.: Songs, by Mr. Clement Hosking. 10.5 p.m.: Orchestral Music. 10.30 p.m.: Close down.



Nicholas Robins who will render two recitals on the Wur-litzer organ from 2BL to-night.



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**EVENING SESSION.**

Announcer: Athol Lykke. 6.0: G.P.O. chimes. 6.1: International cricket scores, Tasmania v. England, at Hobart. 6.4: Children's Happy Moments, stories by "Miss Wireless." 6.30: Dinner music on Sonora. 7.0: G.P.O. chimes. 7.1: Stock Exchange Intelligence. 7.5: General market report. 7.10: 5CL's sporting service by "Silvius." 7.22: Resume on cricket by "Willow." 7.32: Sonora recital. 7.45: F. H. Nicholls, an address on "The Merchant of Venice."

**NIGHT SESSION.**

8.0: G.P.O. chimes. 8.1: James Glennon, violinist—"Concerto" (Tschaiakowski), "Madrigalo" (Simonetta). 8.5: Hayden Male Quartet—"Larboard Watch," "While I Have You." 8.11: Paul Jeacle, saxophone—"Temptation Rag," "Ramona" (Waime). 8.17: Senia Chostiakoff, tenor—"By Fireside" (Strack), "Beautiful Eyes" (a gipsy song). 8.23: Will Runge, humorous, in droll humor. 8.33: Seth Smith, banjo solos—"Black Coquette" (Grimshaw), "A Snaky Tree" (Donaldson). 8.39: Beryl Counter, mezzo—"One Pine Day" ("Madam Butterfly"), "You Lovely Thing" (Anderson). 8.45: James Glennon, violinist—"Apres On Reve" (Faure), "African Dance" (Nash). 8.51: Hayden Male Quartet—"The Soldier's Farewell," "Lovely Night." 8.58: International cricket scores, England v. Tasmania, at Hobart. 9.0: G.P.O. chimes. 9.1: Meteorological information. 9.2: Overseas mail report. 9.5: Senia Chostiakoff, tenor—"The Red Sarafan" (Russian folk song), "I Pluck my Lonely Caravan" (Eric Coates). 9.9: Pianoforte recital by Hans Bertram—Original compositions (by request), "Sonata in E Flat Minor" (Hans Bertram), "Nocturne No. 1" (L. Winkler). 9.29: H. Bauerchse and George Cowley, duet—"Who is Sylvia" (Schubert), "When Song is Sweet" (Sans Souci). 9.36: James Glennon, violinist—"Canti Amoreoso" (Elman), "Valse Brilliant" (Chopin). 9.42: Will Runge, humorist, in droll humor. 9.50: Paul Jeacle, saxophone—"Valse Scitosa," "Forgotten." 9.55: Beryl Counter, mezzo—"Meadow Sweet" (Brahm), "What's in the Air To-day?" (Eden). 10.2: Seth Smith, banjo solos—"Columbia March" (Eno), "Jeanette" (Shilkret). 10.8: George Cowley and H. Bauerchse, duets—"The Two Beggars" (Wilson), "When My Caravan Has Rested" (Lohr). 10.15: News service; British official wireless news; 5CL's sporting service by "Silvius"; meteorological information. 10.31: On with the dance, music by Radi-o-Aces. 11.10: God Save the King."

**7ZL**

**MID-DAY SESSION.**

Announcer: Jack Broadbent. 11.30 a.m.: M'ellie Columbia broadcasts. 11.34: Special midlands weather forecast. 11.35: M'ellie Columbia broadcasts. 11.55: Tasmanian stations. 9 a.m. weather report; shipping information; mail notices; housewives' guide. 12.0: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 12.20: British official wireless news. 12.30: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 12.55: "Mercury" news service; produce sales held at railway. 1.5: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 1.30: Close down. 2.30: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary.

**AFTERNOON SESSION.**

Announcer: Jack Broadbent. 3.0 p.m.: G.P.O. clock chimes the hour. 3.1: Weather information. 3.4: M'ellie Columbia broadcasts. 3.20: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 3.50: M'ellie Columbia broadcasts. 4.5: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 4.45: Close down. 5.30: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 6.0: Close down.

**EARLY EVENING SESSION.**

Announcer: Jack Broadbent. 6.15 p.m.: M'ellie Columbia broadcasts. 6.30: Mollie Horlock will play for the children, piano recital. "A Garden Dance," "Remembrance." 6.45: Request numbers for the children. 7.0: Answers to letters and birthday greetings by "Uncle David." 7.5: M'ellie Columbia broadcasts.

**EVENING SESSION.**

Accompanist: Arthur Johnson. Announcer, Jack Broadbent. 7.15 p.m.: A. M. O'Leary will speak on "Cricket Activities." 7.30: Paul Whiteman and his Orchestra—"The Merry Widow," "My Hero." 7.37: Owen Davidson, soprano—"Cuckoo Calls" (Brahm), "Deh Veni" (Mozart). 7.43: Australian Commonwealth Band, conducted by Albert Ballie—"Entente Cordiale March," "Australia for Ever." 7.50: Albert Sargison, tenor—"Selected." 7.57: Paul Whiteman and his Orchestra—"The Merry Widow." 8.0: "My Task" (Donaldson), "Just Like a Melody out of the Sky" (Donaldson). 8.4: Jean Allen, contralto, "Absent" (Young), "Somewhere a Voice is Calling" (Newton). 8.11: Guitar duet, "Farmyard Medley," "Beanoat Medley." 8.18: Owen Davidson, soprano—"Mattinata" (Tosti), "Venetian Song" (Bomber). 8.25: Paul Whiteman and his Orchestra—"La Golondrina," "La Paloma," the Dove. 8.32: Albert Sargison, tenor—"Selected," "Selected." 8.37: Paul Whiteman and his Orchestra—"Blue Nights" (Err. Robins). 8.40: Jean Allen, contralto—"O. Western Winds." "My Task." 8.47: J. M. Counsel, "A Musical Hour with the Old Masters." 9.47: News session; British official wireless news. Readings from the "Weekly Courier," "Mercury" special Tasmanian news service; railway auction produce sales held at railway; weather information; Hobart Stock Exchange quotations; Royal Auto Car Club of Tasmania safety road guide for the week-end; notes by the Hobart Cycling Association; cycling notes by the Hobart Cycling Association; market reports from Messrs. Roberts and Co. and Messrs. Wise and Stirling. 10.0: G.P.O. clock chimes the hour. 10.2: God Save the King.

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**24/6**

**EVER-READY DRY BATTERIES**

# Local Programmes, Saturday, January 19

## 2FC

### EARLY EVENING SESSION

Announcer: A. S. Cochrane.

7.0 a.m.: "Big Ben" and announcements.  
7.2 a.m.: Official weather forecast; rainfall; river reports; temperatures; astronomical memoranda. 7.5 a.m.: Sydney Morning Herald summary. 7.12 a.m.: Shipping intelligence; mail services. 7.15 a.m.: Studio music. 7.22 a.m.: Investment market; mining sharemarkets; metal quotations. 7.28 a.m.: Wool sales; breadstuffs markets; inter-State markets; produce markets. 7.40 a.m.: Studio music. 8.0 a.m.: "Big Ben." Close down.

### MORNING SESSION

Announcer: Laurence Halbert.

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

### MIDDAY AND AFTERNOON SESSIONS

Announcers: Laurence Halbert, Ewart Chapple.

12.0 noon: "Big Ben" and announcements.  
12.2 p.m.: Stock Exchange information. 12.4 p.m.: Studio music. 12.10 p.m.: "Sydney Morning Herald" news service. 12.15 p.m.: Rugby wireless news. 12.20 p.m.: Studio music. 12.45 p.m.: Cricket scores, England v. Tasmania, played at Hobart. 1.0 p.m.: "Big Ben." Weather intelligence. 1.3 p.m.: "Evening News" midday news service. 1.20 p.m.: Studio music.

Races: During the afternoon, events at the A.J.C. meeting at Randwick will be described by the 2FC Racing Commissioner.  
Cricket: Scores of the cricket match, England v. Tasmania, played at Hobart, will be transmitted as received. During sporting intervals, musical items will be given from the Studio. 4.45 p.m.: From the Studio—Complete sporting resume. 5.0 p.m.: "Big Ben." Close down.

### EARLY EVENING SESSION

Announcer: A. S. Cochrane.

5.40 p.m.: The Chimes of 2FC. 5.45 p.m.: The Children's Session, conducted by the "Hello Man"; letters and stories. 6.30 p.m.: Music and entertainment. 6.40 p.m.: Weather intelligence; shipping; Stock Exchange. 6.45 p.m.: Rugby wireless news. 6.50 p.m.: Sporting news; late news and studio music. 7.10 p.m.: The 2FC Dinner Quartette, conducted by Horace Keats.

### EVENING SESSION

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40 p.m.: Programme announcements.  
7.45 p.m.: Pianoforte reproduction.  
7.52 p.m.: Cricket results, England v. Tasmania, played at Hobart.



MISS MAGGIE FOSTER, violinist, in to-night's programme from 2FC.

7.54 p.m.: Popular music.  
8.0 p.m.: "Big Ben." From Nepean District Hospital, hospital concert party, directed by Charles Lawrence; assisting artists, Leslie Austin, Dorothy Dewar, R. A. Bartleman, Peggy Dunbar, Carlton Fay.  
9.30 p.m.: From the studio—Weather report and announcements.  
9.32 p.m.: From the Speedway Royal—Description of the races.  
9.42 p.m.: From the Studio—John Mitchell, tenor.  
9.49 p.m.: Maggie Foster, violinist.  
9.56 p.m.: From the Wentworth—The Wentworth Cafe Dance Orchestra, conducted by Jimmy Elkins.  
10.0 p.m.: From the Studio—Tom Foggitt, novelty pianist.  
10.13 p.m.: From the Speedway Royal—Description of the races.  
10.23 p.m.: From the Studio—Maggie Foster, violinist.  
10.30 p.m.: John Mitchell, tenor.  
10.37 p.m.: Tom Foggitt, novelty pianist.  
10.44 p.m.: From the Wentworth—The Wentworth Cafe Dance Orchestra, conducted by Jimmy Elkins.  
10.57 p.m.: From the Studio—Late weather and to-morrow's programme.  
10.59 p.m.: From the Wentworth—The Wentworth Cafe Dance Orchestra, conducted by Jimmy Elkins.  
11.30 p.m.: National Anthem. Close down.

## 2BL

Saturday, January 19.

### MORNING SESSION.

Announcer: A. C. C. Stevens.

8 a.m.: G.P.O. clock and chimes; metropolitan weather report. 8.1 a.m.: State weather report. 8.2 a.m.: Studio music. 8.15 a.m.: G.P.O. clock and chimes; news from the "Daily Telegraph Pictorial." 8.25 a.m.: Studio music. 8.30 a.m.: G.P.O. clock and chimes; studio music. 8.35 a.m.: Information, mails, shipping, arrivals, departures and sailings. 8.38 a.m.: News from the "Daily Telegraph Pictorial." 8.45 a.m.: G.P.O. clock and chimes; studio music. 9 a.m.: G.P.O. clock and chimes; studio music. 9 a.m.: Half an hour with silent friends. 10 a.m.: G.P.O. clock and chimes.

### MIDDAY SESSION

Announcers: A. C. C. Stevens, J. Knight Barnett.

11 a.m.: G.P.O. clock and chimes; Women's Session, conducted by Mrs. Cranfield. What's on at the Pictures and Theatres. Novel suggestions to listeners. Week-end specials. 11.30 a.m.: Advertising hints. 12 noon: G.P.O. clock and chimes; special ocean forecast and weather report. 12.3 p.m.: Pianoforte reproduction. 12.30 p.m.: "Sun" news service. 12.40 p.m.: Studio music. 12.45 p.m.: Cricket scores, England v. Tasmania, played at Hobart. 12.48 p.m.: Studio music. 1.30 p.m.: "Sun" midday news service. 1.40 p.m.: Stu-

dio music. 1.57 p.m.: Cricket scores. 2 p.m.: G.P.O. clock and chimes; close down. Note: Race results.

### AFTERNOON SESSION.

Announcer: J. Knight Barnett.  
Accompanist: Kathleen Roe.

3.45 p.m.: G.P.O. chimes; cricket scores, England v. Tasmania. 3.48 p.m.: Popular music. 3.50 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4 p.m.: Dorothy Dewar, in the latest songs. 4.7 p.m.: "Sun" news service. 4.10 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.20 p.m.: From the Studio, The Ahad Duo, steel guitars. 4.28 p.m.: Cricket scores; Dorothy Dewar in the latest songs. 4.35 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.40 p.m.: From the Studio, "Sun" news service. 4.45 p.m.: The Ahad Duo, steel guitars. 4.50 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams. 5 p.m.: From the Studio, popular music. 5.10 p.m.: "Sun" news service. 5.15 p.m.: Pianoforte reproduction. 5.30 p.m.: Complete sporting resume. 5.37 p.m.: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcers: J. Knight Barnett, Basil Kirke.

5.40 p.m.: Children's Session—Music and entertainment. 6 p.m.: Letters and stories. 6.30 p.m.: "Sun" news service and late sporting. 6.40 p.m.: 2BL Dinner Quartette. 7.10 p.m.: Cricket scores, England v. Tasmania; complete sporting and racing resume. 7.30 p.m.: Mr. Pim and Miss Pam in advertising talks and nonsense. 7.55 p.m.: Programme and other announcements.

### EVENING SESSION.

Announcer: Basil Kirke.

Accompanist: G. Vern Barnett.

8 p.m.: G.P.O. clock and chimes; Heyes Banjo Troupe.  
8.12 p.m.: Laurel Streeter, in popular songs.  
8.19 p.m.: Bert Warne and Dud Osborne, entertainers.  
8.30 p.m.: Popular studio programme.  
9.45 p.m.: Weather report.  
9.46 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams.  
10.6 p.m.: From the Studio: Laurel Streeter, in popular songs.  
10.13 p.m.: Bert Warne and Dud Osborne, entertainers.  
10.21 p.m.: Heyes Banjo Troupe.  
10.31 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams.  
10.41 p.m.: From the studio: Heyes Banjo Troupe.  
10.50 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams.  
11.10 p.m.: From the Studio. Resume of following day's programme.  
11.15 p.m.: Romano's Dance Orchestra, conducted by Bennie Abrahams.  
11.30 p.m.: National Anthem; close down.



JOHN MITCHELL, tenor, who will be heard from 2FC to-night.  
Howard Harris Photo.

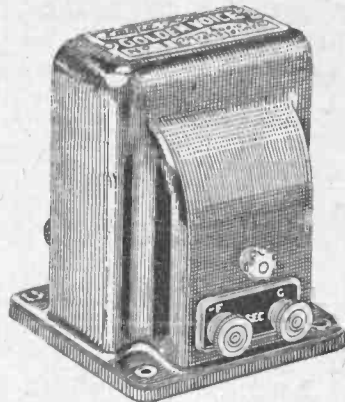


MISS PEGGY DUNBAR, also in to-night's programme.  
Howard Harris Photo.

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### 3LO

**EARLY MORNING SESSION.**  
7.15 a.m.: Morning melodies. 7.20: Morning exercises to music. 7.30: Stock reports; market reports; general news; shipping and sporting information. 8.0: Melbourne Observatory time signal. 8.1: Morning melodies. 8.15: Close down.

#### MORNING SESSION.

Announcer: Frank Hatherley.  
Accompanist: Agnes Fortune.  
11.0 a.m.: Eric Welch will speak on to-day's V.A.T.C. races at Caulfield. 11.10: The Station Orchestra, first and second movements of "Symphony" (Haydn). 11.20: Violet Jackson, soprano—"The Nightingale and the Rose" (Thompson); "Life's Epitome" (Rae). 11.27: The Station Orchestra, suite—"My Native Heath" (Wood). 11.37: Keith Desmond, elocutionist, will give a short recital. 11.44: The Station Orchestra, Andante from Symphony in G (Mozart); suite, "In Arcady" (Nevin). 11.53: Bernard Manning, bass-baritone (by permission of J. O. Williamson, Ltd.), "Toreador's Song" (Bizet), selected.

#### MID-DAY SESSION.

12.0 (noon): Melbourne Observatory time signal; express train information. 12.1: Market prices received by the Australian Mines and Metal Association from the London Stock Exchange this day; British official wireless news from Rugby; Reuters's and the Australian Press Association's cables; "Argus" news service. 12.20: The Station Orchestra—Suite, "Harvest Time" (Haydn Wood). 12.30: Keith Desmond, elocutionist, will give a short recital. 12.40: Gullford Bishop, violin, "Capriccioso" (Ten Have). 12.47: Stock Exchange information. 12.50: The Station Orchestra—"Scenes de Ballet" (Gloazeron). "Flute of Spring" (Rachmaninoff). 1.0: Bernard Manning, bass-baritone—"The Admiral's Yarn" (Rubens), "Friend of Mine" (Sanderson). 1.7: The Station Orchestra—Overture, "Hamlet" (Tschakowsky). 1.15: Close down.

#### AFTERNOON SESSION.

Announcer: Frank Hatherley.  
1.28 p.m.: Description of Hawthorn Hurdle race, 2 miles 65 yards, V.A.T.C. races at Caulfield, by Eric Welch. 1.35: Sonora recital. 2.15: Description of pennant cricket match, Melbourne v. Northcote, at M.C.G., by Rod. McGregor. 2.28: Description of Holiday Stakes, 5½ furlongs, V.A.T.C. races at Caulfield. 2.35: Description of pennant cricket match, Melbourne v. Northcote, at M.C.G. 3.3: Description of Anniversary Handicap, 1m. 3fur., V.A.T.C. races at Caulfield. 3.10: Description of pennant cricket match, Melbourne v. Northcote, at M.C.G. 3.28: Description of Sonora recital, sports. 4.13: Description of Kookaburra Trial, 1 mile, V.A.T.C. races at Caulfield. 4.20: Description of pennant cricket match, Melbourne v. Northcote, at M.C.G. 4.48: Description of Toorong Handicap, 6 fur., V.A.T.C. races, at Caulfield. 4.55: Description of pennant cricket match, Melbourne v. Northcote, at M.C.G. 5.0: "Herald" news service. During the afternoon progress reports in the cricket match, England v. Tasmania, at Hobart, will be broadcast as they come to hand. 5.10: Description of pennant cricket match, Melbourne v. Northcote, at M.C.G. 6.0: Stumps scores.

#### EVENING SESSION.

Announcer: Frank Hatherley.  
6.1 p.m.: Sporting results. 6.5: Answers to letters and birthday greetings by "Little Miss Kookaburra." 6.25: Musical interlude. 6.30: "Herald" news service. 6.40: "Kookaburra" will tell the "Kinky Ones" about "Fairlyland," and for the elder Kookaburres more about "Nellie and Billy in Moonland."

#### NIGHT SESSION.

Announcer: G. J. O'Connor.  
Accompanist: Agnes Fortune.  
7.5 p.m.: Stock Exchange information. 7.15: Market reports. 7.30: News session; stumps scores; cricket, England v. Tasmania, at Hobart, and Melbourne v. Northcote, and Melbourne Cricket Ground. 7.43: Birthday greetings. 7.44: Out of the Past. 7.45: Dr. J. A. Leach, "Shrike-Tits." 8.5: A Maker of History. 8.1: Programme announcements; Tasmanian letter to 3LO from the "Courier," Launceston. 8.5: The Station Orchestra—Overture, "Merry Wives of Windsor" (Nicola). 8.10: Tom Masters, tenor—"Little Town in the Old County Down" (Sanders), "Smilin' Through" (Penn). 8.17: The Station Orchestra—Selection, "Student Prince" (Romberg). 8.27: The Radio Melody Makers. "Thirty Minutes of Melody." 8.57: The Station Orchestra—Suite, "Le Deux Pigeons" (Messenger). 9.4: The record feature of the week. 9.8: Olive Painter, mezzo-soprano—"Angels Guard Thee" (Godard) "Glo to Oblivion" by Tasma Fierman. "At Dawning" (Cadman). 9.15: Eric Welch will speak on to-night's events at the Stadium. 9.17: The Station Orchestra—Selection, "Rome and Juliet" (Gounod). 9.40: Olive Painter and Tom Masters, mezzo-soprano and tenor—"Who is Sylvia?" (Schubert). "Thank God for a Garden" (Del Riego). 9.47: The Station Orchestra, "Tarantella" (Bohm). 9.52: Eric Welch will again describe the night's events. 10.7: The Station Orchestra—Suite, "Sibyllette" (Hadley). 10.17: Lillian Colenso, entertainer, "The Gipsy's Warning" (Balfe). 10.24: Bertha Jorgensen, violin, selected. 10.31: The Station Orchestra—Suite, "The Carnival" 10.40: Late sporting results. 10.45: Lillian Colenso, entertainer. 10.53: The Radi-o-Aces—"Forever More" (Burnett), "Nebraska" (Revel), "Clarinet Marmalade" (Fergus), "Ramona" (Wayne), "Rain" (Ruby) "I Love to Dunk a Hunk of Sponee Cake" (Castelli), "Because my Baby Don't Mean Maybe Now" (Donaldson), "Beloved" (Kahn), "Just Like a Melody out of the Sky" (Donaldson), "Lazy Feet," piano solo (Masman), "That's What You Mean to Me" (Davis), "Chloe" (Kahn), "Lenora" (Gilbert), "That Stolen Melody" (Fisher), "Guess Who's Down" (Razza), "Googly Goo" (Davis). 11.40: God Save the King.

### 3AR

**MORNING NEWS SESSION.**  
10 a.m.: G.P.O. clock; "Ten." 10.1: "Age" Stock Exchange reports; London metal market. 10.10: "Age" market reports; farm and station produce; fruit, fish, vegetables, etc. 10.25: "Age" shipping reports; ocean forecast. 10.30: Mail notices; express train information. 10.35: "Age" news service, exclusive to 3AR. 10.59: Weather forecast.

#### MORNING MUSICAL SESSION.

Announcer: Frank Hatherley. 11 a.m.: Ned Trell's Radi-o-Aces, "Sticky Fingers" (Andrinal). "Why Haven't we got the Sunday Every Day" (Summers). "Loved Me" (Wilson), "What a Baby" (Whiting). 11.20: British Official Wireless news; rates of exchange as supplied by Messrs. Thos. Cook and Sons. 11.30: Ned Trell's Radi-o-Aces "That's My Weakness Now" (Stept), "Get Out and Get Under the Moon" (Tobias), "Somebody's Crazy About You" (Murphy), "What Do I Care What Somebody Said" (Woods), "Forever More" (Burnett), "Nebraska" (Sissilli). 12: Close down.

#### AFTERNOON SESSION.

3 p.m.: Brunswick City Band, march, "Quarter Column." fantasia, "Uranus." 3.13: Beautiful ballads. 3.19: Brunswick City Band, fox trot, "A Real Sweetheart." 3.20: Beautiful ballads. 3.30: Brunswick City Band, march, "Perseverance," fox trot, "Selected." 3.44: Beautiful ballads. 3.50: Announcements. 3.53: Brunswick City Band, fantasia, "Ernani." 4.3: Beautiful ballads. 4.11: Brunswick City Band, march, "The Colonel's Parade." 4.21: Beautiful ballads. Selection, Comic Opera. 4.43: Beautiful ballads. 4.53: Brunswick City Band, a waltz. 5.0: Close down.

#### EVENING SESSION.

Announcer: John Stuart. 6 p.m.: Sweet solace from the Seraphina. 8.0: All sporting results.

#### NIGHT SESSION.

Announcer: Frank Hatherley. Accompanist: Reg. Brown. 8.30 p.m.: Coburg City Band, waltz, "Roselinda" (Hawkins). 8.40: Bernard Manning, bass-baritone, "I Love Someone from Zomerst" (Ben-zetti), "Birds in the High Hall Gardens," from Tennison's "Maud" (Somers). 8.47: Capt. Donald McLean, "On all sides nothing by the sky and sea" (Virgil's Aeneid). 9.2: Coburg City Band, march, "Boulder City" (Ord. Rume). 9.7: Howard Stevenson, piano, a Chorus, waltz. 9.21: Victor Andrews, baritone, "Sombre Woods" (Lully). "Monkey's Carol" (Stanford). 9.28: Coburg City Band, selection, "Daughter of the Regiment" (Donnibetti). 9.38: Jessie Batchelor, mezzo soprano, "The Garden of Sleep" (Daines). 9.45: Coburg City Band, waltz, "Dream of the Past" (Laski). 9.54: Bernard Manning, bass-baritone, "A Voice by the Cedar Tree" (Somervell), "She Came to the Village Church" (Pennypson's "Maud" (Somervell). 10.1: Coburg City Band, march, "Armandal." 10.57: Howard Andrews, baritone, "Now Wander Sweet Mary" (Wolf). "Ten Little Things" (Wolf). 10.13: Coburg City Band, march, "Jack o' Lantern" (Rimmer). 10.18: Jessie Batchelor, mezzo soprano, "Castilian Lament" (del Riego), "The Early Morning" (Peel). 10.25: "Age" news service, exclusive to 3AR; sporting results. 10.35: God Save the King.

### 4QG

**EARLY MORNING SESSION.**  
7.30 a.m.: Time signals. 7.45: News service. 8.0: Some electric records. 8.15: News service. 8.30: Close down.

#### MORNING SESSION.

11 a.m.: From Seventh Day Adventist Church, complete service. 12.15: Close down.

#### AFTERNOON SESSION.

Race Meeting.—The race meeting will be described direct from the course. Transmission will commence with the start of the first race. Between races orchestra music will be played from the Tivoli Theatre, and musical items will be broadcast from the studio. 5.0: Close down.

#### EARLY EVENING SESSION.

6 p.m.: Mail train running times; special "Queenslander" bi-weekly news service for distant listeners. 6.30: Bedtime stories conducted by "Uncle Ben." 7.15: To-day's race results in brief, Melbourne general sporting notes. 7.30: Sailing notes by Mr. Fred Smith.

#### NIGHT SESSION.

8.0: Orchestral music and vaudeville. 8.30: Motor cycle races. 9.0: Orchestral music. 9.15: Dance music and motor cycle racing. 10.0: "The Sunday Mail" news; weather news. Close down.

### 5CL

#### MORNING SESSION.

Announcer: Athol Lykke. 12.45: From Gawler race-11.1: Last-minute selection for the V.A.T.C. meeting at Caulfield by Mr. Eric Welch. 1.20: General sporting notes. 1.3: Probable riders and starters at Gawler by "Silvius" and 5CL's sporting calendar. 11.30: Parlophone recordings—Sam Lanin and his Band in latest dance releases. 11.45: "The Advertiser" general news service. British official wireless news. 12.0: G.P.O. chimes and close down.

#### AFTERNOON SESSION.

Announcer: Athol Lykke. 12.45: From Gawler race-course, positions and riders for Handicap Trial Stakes. 1.5: News of the Handicap Trial Stakes by Mr. Arnold Treloar. 1.5: Musical numbers and result of Hawthorn Hurdle Race, V.A.T.C. races at Caulfield. 1.25: Positions and riders for Handicap Hurdle Race. 1.30: News of the Handicap Hurdle Race by Mr. Arnold Treloar. 1.5: Musical numbers and result of

Arnold Treloar. 1.45: Sonora recital, Parlophone recordings. 2.5: Positions and riders for Summer Handicap. 2.10: Musical numbers on the Sonora, Parlophone recordings. 2.19: V.A.T.C. race result, Holiday races. 2.20: Description of the Summer Handicap by Mr. Arnold Treloar. 2.26: Recital of orchestral selections on the Sonora; Parlophone recordings. 2.35: Positions and riders for Jumper's Flat Race. 2.40: Vocal and instrumental numbers on the Sonora, Parlophone recordings. 3.0: Description of the Jumper's Flat Race by Mr. Arnold Treloar. 3.6: V.A.T.C. result, Anniversary Handicap. 3.7: Symphonic selections by the Regent Orchestra under the conductorship of Mr. W. R. Cade. 3.25: Positions and riders for Railway Welter (first division). 3.30: Orchestral selections. 3.40: Description of the Railway Welter (first division) by Mr. Arnold Treloar. 3.48: Orchestral selections on the Sonora, Parlophone recordings, and V.A.T.C. race results. 4.5: Positions and riders for Railway Welter (second division). 4.10: Recital of music. 4.20: Description of the Railway Welter (second division) by Mr. Arnold Treloar. 4.25: Symphonic selections. 4.3: Positions and riders for Flying Handicap. 4.50: Resume of afternoon's sporting results. 5.0: Description of the Flying Handicap by Mr. Arnold Treloar. 5.10: Close down.

**AFTERNOON SESSION.**

Announcer: Athol Lykke. 6.0: G.P.O. chimes. 6.1: Resume of sporting. 6.10: Children's Happy Moments—Birthday Greetings, correspondence, songs, and stories by "The Wattle Lady." 6.40: An interlude of chamber music on the Sonora—Parlophone recordings. 6.4: G.P.O. chimes. 7.1: S. C. Ward and Co.'s Stock Exchange Information. 7.8: International cricket scores, England v. Tasmania, at Hobart. 7.10: Rev. G. E. Hale, B.A., talk on "The Art of Being Human." 7.15: "Willow" will give a resume on the cricket. 7.35: G. G. Riley, tal on "Items of Interest." 7.45: 5CL's sporting service.

**NIGHT SESSION.**

4.0: G.P.O. chimes. 8.1: Holden's Silver Band—March—"Blencrair" (Rimmer); valse, "Un pont d'Amour" (Silesu); overture, "Napoleon" (Bilton). 8.13: Aileen Newlyn, soprano—"A Summer Night" (Thomas), "I Love the Moon" (Rubens). 8.19: Harry Hutchins, violinist—"Souvenir" (Hubay), "La Serenade" (Braga). 8.25: The Radio Trumps, entertainers, in selected humor. 8.33: Holden's Silver Band—"Musical Snapshots" (Frenchoard), Morceau, "Dream Land Bells." 8.45: Senia Chostiaoff, tenor—"Night of Love," "The Northern Star" (Glinka). 8.51: Holden's Silver Band—Selection, "Duenna" (Renaud). 9.25: The Radio Trumps, entertainers, in selected humor. 9.33: Harry Hutchins, violinist—"Ave Maria" (Schubert). 9.39: Senia Chostiaoff, tenor—"I Pitch my Lovely Caravan" (Coats), "When the Night with Sully Silence" (Robertson). 9.45: Holden's Silver Band—Suite, "Merchant of Venice" (Rossi), "You're a Real Sweetheart" (Friend). 9.57: Fred. Guster, bass—"She Alone Charmeth my Sadness" (Gounod), "King Henry's Song" (Gounod). 10.3: Holden's Silver Band—Selection "Lilac Time" (Schubert). 10.15: 5CL's sporting service. 10.31: Race, and be merry. By courtesy of 3LO, Melbourne, modern dance numbers by the famous Radi-o-Aces. 11.10: God Save the King.

**7ZL**

**AFTERNOON SESSION.**

Announcer: Jack Broadbent. 3.5 p.m.: Running description of Anniversary Handicap, 1 mile 3 furlongs, run at Caulfield racecourse, Caulfield, Victoria. 3.10: Transmission from the T.C.A. Ground, cricket match, English XI v. Tasmania, described by A. M. O'Leary. 3.40: Running description of Rowena Welter, 7 furlongs, run at Caulfield racecourse, Caulfield, Victoria. 3.45: Repeat all sporting results. 3.50: Transmission from the T.C.A. Ground, cricket match, English XI v. Tasmania, described by A. M. O'Leary. 4.15: Running description, Koakaribb Trial, 1 mile, run at Caulfield racecourse, Caulfield, Victoria. 4.20: Transmission from the T.C.A. Ground, cricket match, English XI v. Tasmania, described by A. M. O'Leary. 4.50: Running description of Tocronga Handicap, 5 furlongs, run at Caulfield racecourse, Caulfield, Victoria. 4.55: Repeat all sporting results to hand. 5.0: Close down.

**AFTERNOON SESSION.**

5.40 p.m.: Transmission from the T.C.A. Ground, cricket match, English XI v. Tasmania, described by A. M. O'Leary. 6.0: All sporting results to hand. During the afternoon progress results will be given of the Hobart Trotting Club, also Clabbe and Adelaide races. 6.15: His Master's Voice in Moments Merry and Musical. 6.45: "Uncle David" will entertain the children. 7.0: Answers to letters and birthday greetings by "Uncle David." 7.5: His Master's Voice in Moments Merry and Musical. 7.15: News session.

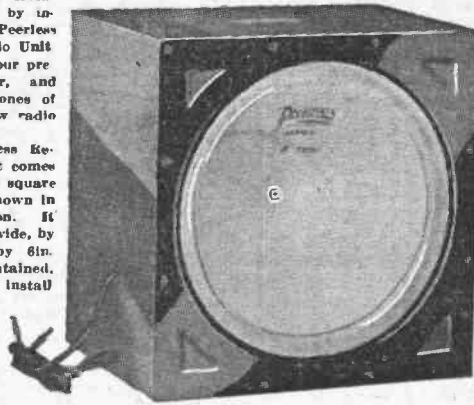
**EVENING SESSION.**

Announcer, Jack Broadbent. 7.30 p.m.: J. M. Counsel will give a talk on "Native Tribes Brought into Hobart in 1832." 7.45: A gripping tale of the ring: "The Fallen Star" (conclusion). 8.0: G.P.O. clock chimes the hour. 8.6: His Master's Voice in Moments Merry and Musical. 8.30: Transmission from the Continental, Macquarie Street, Hobart—Theo. Pipkin and his Continental Orchestra: "Mary Ann" (Silver), "Wingin' Home" (Russell), "Is It Gonna Be Long," "The Man I Love" (Gershwin), "Jeannine" (Gilbert), "The Sweet heart of Sigma Chi" (Vernor), "Get Out and Get under the Moon" (Tobias), "I'm Home" (Cowan), "Sometimes I'm Happy" (Youmans), "Lonesome in the Moonlight" (Baer), "One Alone" (Romberg), "That's My Weakness Now" (Stept), "Desert Song" (Romberg), "Chiquita" (Wayne), "You're a Real Sweetheart" (Friend), "Rio Rita" (Tierney). 10.20: News session; day's sporting results. 10.50: God Save the King.

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## Rock Fishing

Bill and I have been rock fishing. In one hour I lost 50 yards of gut line, four sinkers, five hooks, and three patches of cuttle. As a return I caught one very live eel and the crest of three waves.

We had a wide variety of bait—squid, salted mackerel, prawns, mullet, and sand worms. I owned two gut lines and Bill had a new rod.

Most of the fishing was done by me, as Bill usually hooked himself in the seat and developed a stiff neck trying to see the place.

When we began, the sea was leisurely lapping a foot below our ledge. Ten minutes later it ascended suddenly and three feet of water tried to push us off.

Apart from torn trousers, cut hands, wave breaks," a friend had advised me. Some day I will try this when paddling, but on this occasion I went down on all fours and pressed my chest—to the rock. This had a suction effect like a limpet.

Apart from torn trousers, cut hands and a temporary sense of drowning, I came through splendidly.

Bill had just hooked himself again when the wave broke, and he sat down four feet away on the hook. His comments carried to the beach, and an old lady left in a hurry. Then he abused me for not having lain down on the bait, most of which had gone with the wave.

Next thing that happened was the eel! Have you ever pulled an angry eel on to a small slippery rock and then tried to find your hook? This eel had swallowed it down to his tail—I left it there.

Incidentally Bill said that I caught the eel on purpose to annoy him. I soothed him by saying that he seemed to be hooking the same flathead right along!

The next edition of the free Burgess Book of Adventures will surely carry a chapter on my escape from drowning. But don't wait for that—get one of the present consignment from the New System folk, 280 Castlereagh Street, Sydney.

It has more thrills than rock fishing. And that's going some!

## Local Programmes, Sunday, Jan. 20

### 2FC

#### MORNING SESSION.

Announcer: A. S. Cochrane.

- 10.0: "Big Ben" and announcements.
- 10.2: Studio music.
- 10.15: News service.
- 10.30: Studio music.
- 11.0: Morning service, broadcast from St. Andrew's Cathedral.
- 12.15 (approx): Close down.

#### AFTERNOON SESSION.

Announcer: J. Holland.

- 2.30: Programme announcements.
- 2.32: The Children's Session, conducted by the "Hello Man."
- 3.0: Studio music.
- 3.30: From the Band Rotunda, Manly Beach—the Manly Municipal Military Band.
- 5.0: Close down.

#### EVENING SESSION.

Announcer: Laurence Halbert.

- 6.0: "Big Ben," programme announcements.
- 6.5: Empire Trio, assisted by Miss Le Brun Brown.
- 7.0: From the Lyceum Hall, evening service, Central Methodist Mission—Preacher: Rev. H. C. Foreman, M.A. Organist: Mrs. R. Allison. Choir Master: Mr. V. W. Peterson, B.A.
- Anthem, "The King of Love my Shepherd Is" (Shelley). Solist, Miss Ellen.
- Introt, "Jesu, Stand Among Us."
- Invocation.
- Hymn 627, "Light of the World, Faint Move our Weary Feet."
- Prayer.
- Hymn 71, "Was there even Kindest Shepherd?"
- Lesson, Isaiah, Chap. 40, 1-11.
- Solo, "The Sands of Time" (Gounod) Madame Iva Clarke.
- Prayer.
- Intimations. Offering.
- Anthem, "God is our Refuge and Strength" (Minshall).
- Hymn 86, "The Lord is my Shepherd, I'll Not Want."
- Sermon, "The Shepherd of the Valley." Rev. H. C. Foreman, M.A.
- Hymn, 910, "Sun of my Soul."
- Benediction.
- Vesper, "God, the Father, Be Thou Near."
- 8.30: From the Band Rotunda, Manly Beach—the Manly Municipal Military Band.
- From the Studio—
- 9.30: Eileen Starr, soprano.
- 9.37: Victor M'Mahon, flute solos.
- 9.44: Eileen Starr, soprano.
- 9.51: Victor M'Mahon, flute solos.
- 9.57: Record recital.
- 10.30: National Anthem; close down.

### 2GB

- 10.15 a.m.: Organ music from St. Alban's Church, Redfern.
- 10.30: a.m.: Morning service.
- 12 noon: Close down.
- 5.30 p.m.: Children's session.
- 7.0 p.m.: Lecture from Adyar Hall.
- 8.0 p.m.: Sacred concert from Adyar Hall.
- 8.15 p.m.: Violin solos, by Miss Doreen Douglas.
- 8.23 p.m.: Songs by Mr. William Green.
- 8.30 p.m.: Songs, by Miss Florence Gordon.
- 8.37 p.m.: Piano-forte solos, by Miss Jean Read.
- 8.45 p.m.: Songs, by Mr. Edward Barry.
- 8.52 p.m.: Violin solos, by Miss Doreen Douglas.
- 9.0 p.m.: Songs, by Mr. William Green.
- 9.7 p.m.: Songs, by Miss Florence Gordon.
- 9.14 p.m.: Piano-forte solos, by Miss Jean Read.
- 9.22 p.m.: Songs, by Mr. Edward Parry.
- 9.30 p.m.: Close down.

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### 2BL

#### MORNING SESSION.

Announcer: A. C. C. Stevens.

- 11.0: G.P.O. clock and chimes.
- Service broadcast from Randwick Presbyterian Church.
- Minister: Rev. W. J. Grant.
- Choirmaster: Mr. Geo. W. Sturring.
- Anthem by choir.
- Invocatory prayer.
- Hymn.
- Scripture.
- Prayer.
- Hymn.
- Scripture.
- Address to children.
- Children's hymn.
- Announcements and offertory.
- Anthem by choir.
- Prayer.
- Psalm.
- Sermon.
- Hymn.
- Benediction.
- 12.15 (approx.): From the studio, "Sun" news service.
- 12.30: Studio music.
- 2.0: G.P.O. clock and chimes. Close down.

#### AFTERNOON SESSION.

Announcer: Basil Kirke.

- 3.0: G.P.O. clock and chimes.
- Charitable appeal on behalf of the Hospital Association of N.S.W.
- 3.3: From the Coogee Pier, programme of band music.
- 4.30: From the studio, studio music.
- 5.0: G.P.O. clock and chimes. Close down.

#### EVENING SESSION.

Announcer: Basil Kirke.

- Accompanist: G. Vern Barnett.
- 5.40: Children's session, conducted by Uncle Bas.
- 6.30: Evening service, broadcast from New-town Congregational Church.
- Minister: Rev. Mearns Masie.
- Organist: Mr. Allan Weekley.
- Leader of orchestra: Miss Maud Howsen.
- Organ and orchestral recita.
- Orchestra: "Sacred Wreath No. 35" (Voitl).
- Violin solo: "Souvenir" (N. Weekley).
- Orchestra: "Sacred Wreath No. 5" (Voitl).
- Organ solo: "Sehnsucht" (Lange).
- 7.0: Call to worship.
- Doxology; short prayer; "Gloria" (chan- ted)
- Hymn No. 56, "New Year Hymn."
- Scripture lesson.
- Healing prayer.
- Solo, "A Prayer" (Mr. Sam Wood). (Bernard Hanblen)
- Hymn No. 42, "Sowing in the Morning."
- Messages to sick friends.
- Announcements: Questions for January.
- Offertory anthem, "O Worship the King."
- Hymn No. 32, "The Glory Song."
- Silent prayer.
- Sermon, "The Shadow on the Soul," Rev. Mearns Masie.
- Hymn No. 26, "What a Friend We have in Jesus."
- Benediction.
- Retiring, "Whosoever Heareth"
- 8.30: From the Arcadia Theatre, Chatswood, organ recital, arranged by Nicholas Robins.
- 10.30: National Anthem. Close down.

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# Interstate Programmes, Sun., Jan. 20



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THE MASTER VALVE

### 3LO

**MORNING SESSION.**  
 Announcer: C. J. O'Connor. 10.20: Bells from St. Paul's Cathedral, Melbourne. 10.45: Express train information. British official wireless news from Rugby. News from yesterday's papers. 11.0: Morning service from the Baptist Church, Collins Street, Melbourne. Preacher, Captain the Rev. Donald MacLean. There Go the Ships. Sanctus: Call to Worship. Invocation and Lord's Prayer. Hymn: "Breathe on Me, Breath of God." Scripture. Hymn. Announcements regarding the worship and work of the week. Offering. Prayer. Anthem by the choir. Sermon. Hymn. Benediction. 12.15: Close down.

### AFTERNOON SESSION.

Announcer: C. J. O'Connor. 2.0: Sonora recital of the world's most famous records. 1. Orchestral "Schubertiana" (Schubert), arr. Keimann (Funk), German folk and his orchestra. Part 1: The Erl King; selection of waltzes; Scherzo from Octet, Op. 165; Hark, Hark, the Lark Part 2: Serenade, Moment Musical; Allegro ma non troppo from string quartet in A Minor; Allegro ma non troppo, from symphony in C Major. Part 3: Scherzo, Allegro moderato from Piano Sonata, Op. 55; Entrance after Act 3, Rosamunde; Ballet music from Rosamunde; Impromptu in G Major, Op. 90, No. 3; Impromptu, Op. 90, No. 4; excerpts from the "Unfinished Symphony." Part 4: Rosamunde Overture; Ave Maria; allegro vivace from Rosemunde Overture; Marche Militaire. 2. Cello solo, "Album Leaf" (Russian) (Scriabin). 3. W. H. Squire. 3. Harpsichord solo: "Pastorale" (Scarlett). 4. Ignaz Friedman. 4. Aria: "Isolde's Lament," Tristan and Isolde (Wagner), Elsa Aisen, soprano. 5. Orchestral: "Faust," selection (Joussier), Columbia symphony. Orchestra, conductor Keeser Hood powers. 6. Song: "Just a Wearyin' for You" (Jacobs-Gould and Stanton), Sophie Breslau, contralto. 7. Pleasant Sunday afternoon service, Wesley Church, Central Mission, Melbourne. Chairman, Rev. J. Cain. Hymn: "Jesus, Keep Me Near the Cross." Prayer. Orchestra. Hymn: "Light of the World." Solo: Miss May Alberta. Orchestra. Solo: Miss May Alberta. notices. Offering. Orchestra. Address. National Anthem. Benediction.

### EVENING SESSION.

Announcer: C. J. O'Connor. 8.45: Shipping information. 8.48: Answers to letters and birthday greetings by "Plain Peter." 9.20: Musical interlude. 9.35: "Plain Peter" has something nice to tell you. 9.45: Adult birthday greetings and programme announcements. 9.47: Bells from St. Paul's Cathedral.

### NIGHT SESSION.

Announcer: C. J. O'Connor. Accompanist: Mabel Nelson. 7.0: Evening service from St. Paul's Cathedral, Melbourne. Hymn (A and M), 208: "O, Holy Spirit, Lord of Grace." Sentence. Exhortation. Absolution. The Lord's Prayer. Versicles and responses. Psalm 68. 1st lesson. Magnificat. 2nd lesson. Nunc Dimittite. The Apostles' Creed. Collects. Hymn 266: "Lead, Kindly Light." Prayers. Hymn 218: "God of Mercy, God of Grace." Sermon: Rev. J. W. Stringer. Hymn 21: "The Day is Past and Over." Benediction. 8.30: Brunswick City Band, selection, "I Crociate." 8.45: Brunswick City Band, selection, "Claire de Lune" (Debussy), mond Lambert, pianist. "Water Play" (Ravel). 8.50: Brunswick City Band, cornet, "The Cornet King," soloist, A. McEwen. 8.55: Madame Lambert, soprano, "Noel d'enfant" (del Aque). Selected. 9.2: William Tait, "Our Lady's Jugler," by Anatole France. "Blessed are the simple-hearted, for they shall see God." 9.17: Edouard Lambert and Raymond Lambert, violin and piano, "Sonata in F" (Grieg). 9.27: Brunswick City Band, Air Varié, "Banover." 9.32: Madame Lambert, soprano, "Flower Song" (Gounod), "Coeur Lambert, march, "Steel for Steel." 9.44: Edouard Lambert, violin, Selected. 9.50: Argus news service. Announcements. Our great thoughts. When are we getting nearer to the essential truth in their superbly than in their science" (Thoreau). 10.0: God Save the King.

### 3AR

11.0: Morning Service from Scots Church, Collins Street, Melbourne. Preacher, Rev. Dr. W. Borland. Psalm 102. v. 1-22. "Thou, shalt Arise." Prayer. Prose, Psalm 42, "As the Heart Panteth After the Water Brooks." Old Testament Lesson, Isaiah 60, v. 1-15. Hymn 108, "Light of the Lonely Pilgrim's Heart." New Testament Lesson, St. Luke 18, v. 1-14. Heart. Lord's Prayer (the congregation standing will unite). Sermon, "When the Son of Man Cometh." St. Luke 18-8. Prayer. Intimations. Offering. Offertory. Hymn 109, "O Come, Immanuel." Benediction. 12.15: British official wireless news. 12.20: Close down.

### AFTERNOON SESSION.

3.0: Salvation Army Band: March, "War March of the Priests. Two Hymns, "Horbury," "St. Agnes." Baritone solo, "The Stranger of Galilee." Captain H. Saunders Selection, "Gems from the Messiah." Recitation, "The Good Samaritan" (Henry Lawson) by Captain Brimblecombe. Cornet solo, "Silver Threads," Staff-Bandsman Wilcox. Selection, "Gleanings Current." Male quartette, "Lux Benigna." Trombone solo, "Song of Songs," Staff-Bandsman Hocking. Meditation, "Rockingham" March, "Conqueror." Male chorus, "Stand Up for Jesus." Cornet solo, "Zelda." Staff-Bandsman Wilcox. Scripture reading, Staff-Captain Dale. Chorus, "Hallelujah." 4.30: Close down.

### EVENING SESSION.

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

### NIGHT SESSION.

Announcer: C. J. O'Connor. 7.0: A bravura of beautiful ballads. 8.45: A. E. Kenyon will speak

on "The Australian Aborigines," utensils, implements, and weapons. 9.1: Beautiful ballads (continued). 9.47: "Age" news service, exclusive to 3AR; announcement. 10.0: God Save the King. Announcer: C. J. O'Connor. 10.0: G.P.O. clock says "Ten." 10.1: "Age" market reports, farm and station produce, fruit, fish, vegetables, etc. 10.25: "Age" shipping reports; ocean forecast. 10.30: Mail notices; express train information. 10.35: "Age" news service, exclusive to 3AR. 10.59: Weather forecast. 11.0: A gramophone recital of the works of the masters, ancient and modern. 12.30: Close down.

### 4QG

**MORNING SESSION.**  
 11 a.m.: From St. John's Cathedral, morning service. 12.15 p.m.: Close down.

**AFTERNOON SESSION.**  
 3.15 p.m.: Band concert by South Brisbane Band. 4.30: Close down.

**EARLY EVENING SESSION.**  
 6.30 p.m.: From the Studio: A session for little listeners; greetings and replies to letters.

**NIGHT SESSION.**  
 7.30: From St. John's Cathedral, evening service. At the conclusion of the church service the concert by the Brisbane Municipal Concert Band will be played from Wickham Park. 9.30: Close down. the hour. God Save the King. Close down.

### 5CL

**AFTERNOON SESSION.**  
 3.0: G.P.O. chimes. 3.1: Old English ballads and instrumental concert, His Majesty's Grenadier Guards Band (Columbia records)—Selection, "The Shamrock" (Middleton), introducing "The Minstrel Boy," "Oft in the Silly Night," "Rakes of Barlowe," "Savourin' the Night," "The Young May Moor," etc.; Alfred O'Shea, tenor, "At the Mid Hour of Night" (Moore). The New Queen's Hall Light Symphony Orchestra—The Nell Gwynne Dances (German), "Country Dance," Pastoral Dance, "Merryman's Dance," "Three Dances from Henry VIII," W. H. Squire, cellist, "Drink to Me only with thine Eyes" (arr. Squire). Kennerley Rumbold, baritone, "The Yeomen of England" from "Merry England" (German), "In Sheltered Vale," W. H. Squire, cellist—"Foggy Dew" (Irish melody), "An Old Melody," Edgar Cole, baritone—"Take, Oh Take those Lips Away," "Heigh, Ho! The Wind and Rain," "Earl Bristol's Farewell," "Now is my Chloë." Pipe-Major John MacDonald—March, "The Edinburgh Volunteers," Angus Campbell's Farewell to Stirling, march, "Balmarra's Landers." Dora Labette, soprano—"Cherry Lips," "The Lass with Delicate Air." The St. James String Sextet, "The Londonderry Air." 4.0: G.P.O. chimes and close down.

**EVENING SESSION.**  
 6.0: G.P.O. chimes. 6.1: S.A. railways information. 6.3: Children's Happy Moments—Birthday greetings, correspondence, songs, and stories, by "Miss Wire" 6.30: "The Birdy" and the Sunshine Songsters—In stories and choral selections. 7.0: G.P.O. chimes. 7.1: A religious service from Maughan Church, Franklin Street, Adelaide; preacher, Rev. W. H. Cann; special singing by choir of 50 voices. From the Studio. 8.25: Stanley A. Brown, trombone soloist—"Serenade" (Schubert), "Fragment" (Mendelssohn). 8.31: Vocal recital, "La Somnambula" (Bellini). Marcia Berardi, soprano, in excerpts from "La Somnambula"—"O comepere me sereno" (Bellini), "Sorra li sen" (Bellini). 8.17: Geoff. Sats, "Ah non credon nurari" (Bellini). 8.12: Geoff. Goldsworthy, cellist—"Melody Antique," "L.A." (Matheson). 8.48: Fred. Williamson, tenor—"If with All your Hearts" from "The Elijah," "Hark, Hark, the Lark" (Schubert). 8.54: Stanley A. Brown, trombone soloist—"Grand Fantasia" (Rimmer), "L'Appari" (Plotow). 9.0: G.P.O. chimes, recital on violin and piano by Prof. Carl Sauer, D.Mus., F.S.C., L.A., (London), violin, and Mme. Arline Sauer (accompanist). Programme of music by classical masters. 9.1: Violin solo—"Meditation" (Bach-Gounod), "Minuet in G" (Bach). 9.10: Piano solo—"Nocturne in E Flat" (Chopin), "Prelude in G Major" (Bach). 9.18: Violin solo—"Prize Song" from "The Meistersingers" (Wagner-Wilhelm). 9.25: Piano solo—"Twilight" (Bendol). 9.30: Marcia Berardi, soprano—"Ophelia" (Chopin), "Caro Mio Ben" (Gloria). 9.35: Geoff. Goldsworthy, cellist, "Simple Avenu" (Thome). 9.40: Fred. Williamson, tenor, "Eleanor" (Corderly-Taylor), "The Dream" (Rubin-stein). 9.45: Mr. P. H. Nichols, an address on "The Harvest." 9.50: Metelod. 9.55: Metelod. 10.0: G.P.O. chimes. 10.1: God Save the King.

### 7ZL

**AFTERNOON SESSION.**  
 Announcer: J. M. Counsel. 3.30 Mile. Columbia broadcasts. 3.31: From the studio—A pleasant Sunday afternoon service, arranged by Davey Street Methodist Church; Rev. A. Crookes Hull, chairman. 4.30: Close down.

**EARLY EVENING SESSION.**  
 6.15: Chorus singing—conductor, Trevor M. Morris, of Children's Special Service Mission. 6.45: Bertha Southey Drammatic will read poems to the children—"The Old Scout," "Old Folks." 6.55: Mile. Columbia broadcasts.

**EVENING SESSION.**  
 Announcer: J. M. Counsel. 8.0: Transmission from Memorial Congregational Church, Brisbane Street, Hobart. 8.25: From the studio—A programme of sacred and classical music specially arranged by J. M. Counsel, L.A.B. 9.40: "Mercury" special news service—ships, within wireless range; weather forecasts; British official wireless news; English affairs and news. "God Save the King."

## Local Programmes, Monday, January 21

### 2FC

#### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

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

#### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.2: Pianoforte selection. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: A talk by the 2FC Racing Commissioner. 10.45: A talk on "Home Cooking and Recipes" by Miss Ruth Furst. 11.0: "Big Ben," A.P.A., and Reuters' cable services. 11.5: Close down.

#### MID-DAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast, rainfall. 12.5: Studio music. 12.10: Summary of news, "Sydney Morning Herald." 12.15: Rugby wireless news. 12.18: A reading. 12.30: Studio music. 12.45: Cricket scores, England v. Tasmania, played at Hobart. 12.48: Studio music. 1.0: "Big Ben;" weather intelligence. 1.3: "Evening News" mid-day news service; Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Popular studio music. 1.57: Cricket scores. 2.0: "Big Ben;" close down.

#### AFTERNOON SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: Record recital. 2.45: Miss B. Macaulay will continue her series of talks—"Your Son," "Hobbies." 3.0: "Big Ben;" pianoforte reproduction. 3.15: Popular music. 3.30: From the Crystal Palace Theatre—The Crystal Palace Orchestra, conducted by Harry Cross. 3.45: From the Studio—Cricket scores, England v. Tasmania, played at Hobart. 3.46: A reading. 4.0: "Big Ben;" Dawn Harding, mezzo. (a) "The Wanderer" (Schubert), (b) "The Fleeting of Time" (Schubert). 4.7: Margot Toner, pianist. 4.14: From the Crystal Palace Theatre—The Crystal Palace Orchestra, conducted by Harry Cross. 4.21: From the Studio—Dawn Harding, mezzo, (a) "Young Love is Unrelenting" (Mozart), (b) "When at Morn" (Schumann). 4.30: Cricket scores. 4.31: Margot Toner, pianist. 4.38: Popular music. 4.45: Third call of the Stock Exchange. 4.47: Popular music. 5.0: "Big Ben;" close down.

#### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The children's session, conducted by "The Hello Man"—Letters and stories, music and entertainment. 5.30: Dalgety's market reports (wool, wheat, and stock). 6.43: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby wireless news. 6.50: Late sporting news. 7.0: "Big Ben;" late news service. 7.10: The 2FC Dinner Quartette, conducted by Mr. Horace Keats—(a) "Czardas No. 5" (Michiels), (b) "Dans les Fleurs" (Berger), (c) "Carmen" (Bizet), (d) "Saskatchewan" (Gilbert), (e) "Chansonette" (Brian Hope).

#### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Programme announcements. 7.45: Pianoforte reproduction. 7.50: Cricket results, England v. Tasmania, played at Hobart, for the benefit of country listeners. 7.52: James Donnelly will speak on the Byrd Expedition. 8.0: "Big Ben." From the Lyceum Theatre—The Lyceum Theatre Orchestra, conducted by Frank McCann. 8.15: From the Studio—A. G. MacDonald, baritone. (a) "Eleanore" (Coleridge-Taylor), (b) "In the Great Unknown" (d'Hardelet). 8.22: Light Music Four, instrumentalists.



Commander Richard Byrd, about whose expedition, now in the Antarctic, Mr. J. J. Donnelly will talk from 2FC to-night.

8.37: Charles Coles, contralto.

(a) "In the Great Unknown" (d'Harde-

(c) "Creation's Hymn" (Beethoven).

8.44: Light Music Four, instrumentalists.

8.54: "The Mellow Fellows, in song and story.

9.4: Weather report.

9.5: Rev. F. H. Raward, "Tales of a Traveller."

9.20: A. G. MacDonald, baritone.

(a) "Come into the Garden, Maud" (Bale).

(b) "Perhaps" (Forster).

9.27: Light Music Four, instrumentalists.

9.42: Clarice Coles, contralto—

(a) "The Blind Ploughman" (Clarke).

(b) "Ships that Pass in the Night" (Stephenson).

(c) "An Erisky Love Lilt" (Frazer).

9.49: From the Lyceum—The Lyceum Theatre Orchestra, conducted by Frank McCann.

10.0: From the Studio, "Big Ben;" "The Mellow Fellows," in song and story.

10.12: Light Music Four, instrumentalists.

10.27: To-morrow's programme.

10.30: National Anthem; close down.

### 2BL

#### MORNING SESSION.

Announcer: A. C. Stevens.

8.0: G.P.O. clock and chimes. Metropolitan weather report. 8.1: State weather report. 8.2: Studio music. 8.15: G.P.O. clock and chimes. News service from the "Daily Telegraph Pictorial." 8.25: Studio music.

8.30: G.P.O. clock and chimes. Studio music.

8.35: Information, mails, shipping, arrivals, departures, and sailings. 8.38: News service from the "Daily Telegraph Pictorial." 8.45: G.P.O. clock and chimes. Studio music. 9.0: G.P.O. clock and chimes. Studio music. 9.30: Half-an-hour with silent friends. 10.0: G.P.O. clock and chimes. Close down.

#### MID-DAY SESSION.

Announcer: Basil Kirke.

11.0: G.P.O. clock and chimes. 2BL Women's Sports Association session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield. 12 noon: G.P.O. clock and chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.45: Cricket scores, England v. Tasmania, played at Hobart. 12.48: "Sun" mid-day news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital. 1.57: Cricket scores. 2.0: G.P.O. clock and chimes. Close down. Note: Race result will be broadcast by courtesy of "Sun" Newspapers.

#### AFTERNOON SESSION.

Announcer: Basil Kirke.

Accompanist: Kathleen Roe.

3.45: G.P.O. clock and chimes. Cricket

scores, England v. Tasmania, played at Hobart. 3.46: Popular music. 4.0: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.10: From the studio, Capt. Fred. Aarons, mystery stories, "The Lost Message." 4.25: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.30: From the studio, cricket scores, England v. Tasmania, played at Hobart. 4.31: Jeanne Byndon, contralto. (a) "Calling Me Home to You" (Doret); (b) "Life and Death" (Coleridge Taylor). 4.37: "Sun" news service. 4.40: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.50: From the studio, Fred Amis, violinist. 4.57: Jeanne Byndon, contralto, (a) "The Sea Garden" (O'Connor Moore), (b) "Speak, Earth, Speak" (Travere). 5.4: Our serial story. 5.14: Fred Amis, violinist. 5.21: Popular music. 5.37: Features of the evening's programme.

#### EARLY EVENING SESSION.

Announcer: J. Knight Barnett.

5.40: Childrens session. Music and entertainment, letters and stories. 6.30: "Sun" news and late spotting. 6.40: 2BL Dinner Quartette, (a) "Chiquita" (Wayne), (b) "Minuet" (Manon), (Massenet), (c) "A Song Remembered" (Coates), (d) "Rose Marie" (Friml), (e) "Pansies" (Nichols), (f) "Roses of Ispaham" (Van Phillips). 7.10: Cricket scores. 7.12: Australian Mercantile Land and Finance Co's report. Weather report and forecast, by courtesy of Govt. Meteorologist. Producers' Distributing Society's fruit and vegetable market report; grain and fodder report ("Sun"); dairy produce report ("Sun"). 7.25: Mr. Pim and Miss Pam in advertising talks and nonsense. 7.55: Programme and other announcements.

#### EVENING SESSION.

Announcer: J. Knight Barnett.

Accompanist: G. Vern Barnett.

8.0: G.P.O. chimes. From King's Cross Theatre, the Kings Cross Theatre Orchestra, under the conductorship of E. J. Roberts.

8.20: From the studio, Franc Rousel and Len Maurice in the latest song hits.

8.25: Josef Kartinen, saxophone solos.

8.29: Charles Lawrence, entertainer. (a) "Old Sunshine" (b) "F.X. 64."

8.39: Franc Rousel and Len Maurice in the latest song hits.

8.44: The Savoyans Dance Band.

8.54: Margaret Madden and Frances Lea in popular melodies.

9.4: Weather report.

9.5: Charles Lawrence, entertainer. (a) "Thoughts," (b) "Our New Flat."

9.15: The Savoyans Dance Band.

9.25: Franc Rousel and Len Maurice in the latest song hits.

9.30: Josef Kartinen, saxophone solos.

9.37: Margaret Madden and Frances Lea, in popular melodies.

9.47: The Savoyans Dance Band.

10.0: G.P.O. chimes. From the King's Cross Theatre, the King's Cross Theatre Orchestra, under the conductorship of E. J. Roberts.

10.20: From the studio, Franc Rousel and Len Maurice in the latest song hits.

10.25: The Savoyans Dance Band

10.35: Late weather.

10.37: The Savoyans Dance Band.

10.57: To-morrow's programme.

10.59: The Savoyans Dance Band.

11.30: National Anthem. Close down

### 2GB

5.30 p.m.: Children's session, by Uncle George. 7.0 p.m.: Stock and market reports, by New Zealand Loan and Mercantile Agency, Ltd. 7.15 p.m.: Music.

7.30 p.m.: The Radio Service Department, by Mr. Stan Crittendon. 7.40 p.m.: Feature story. 8.0 p.m.: Songs, by Miss Elsie Condon. 8.10 p.m.: Items by the Newtown Band (conductor, Mr. C. Bignall). 8.40 p.m.: Mr. Jack Win and Miss Nora Windle, in original selections from their repertoire.

8.50 p.m.: Songs, by Miss Elsie Condon. 9.0 p.m.: Weather report. 9.3 p.m.: Address.

9.15 p.m.: Items by the Newtown Band.

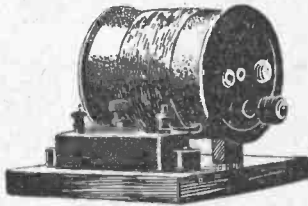
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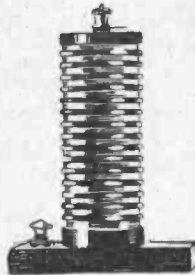
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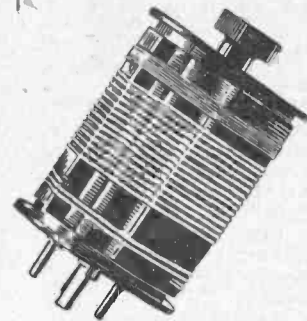
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### 3LO

#### EARLY MORNING SESSION.

7.15: Express train information. 7.16: Morning melodies. 7.20: Morning exercises to music. 7.30: Stock reports. Market reports. General news. Shipping. Sporting information. 8: Melbourne Observatory time signal. 8.1: Morning melodies. 8.15: Close down.

#### MORNING SESSION.

Announcer: Frank Hatherley. 11.0: 3LO's different dainties for the daily dinner. To-day's radio recipe: Sponge biscuits. 11.5: Olga Parker, "What some famous poets have written for children—Browning." 11.20: Musical interlude. 11.25: Under the auspices of the Workers' Educational Association, G. F. Brown will speak on "The Future of Poetry." 11.40: Musical interlude. 11.45: Under the auspices of the St. John Ambulance Society, Miss Edith Wells will speak on "Home Nursing." 12.0: Melbourne Observatory time signal. Express train information. 12.5: Reuter's and the Australian Press Association cables. "Argus" news service. 12.20: Community singing, transmitted from the Auditorium, Collins Street, Melbourne. Conductor, G. Mackay. 1.45: Stock Exchange information. Meteorological information. Weather forecast for Victoria, Tasmania, New South Wales, and South Australia. Ocean forecasts. Rainfall. River reports. 1.55: Close down.

#### AFTERNOON SESSION.

Announcer: Frank Hatherley. Accompanist: Agnes Fortune. 2.15: The Strat Trio (Cecil Parkes, violin; May Broderick, piano; and Frank Johnstone, cello). "Op. 12, No. 1" (Hummel). Allegro agitato. Andante. Final. 2.30: Molly MacKay (soprano). "No No No" (Maitland). "L'Espresso" (Hue). 2.40: Cecil Parkes (violin). "Ballade" (Bowden). "Gavotte" (Gosse). "Hungarian Dance No. 5" (Brahms). 2.49: Molly MacKay (soprano). "Daffodil Gold" (Everywhere). "The Cat" (Carew). 2.56: May Broderick (piano). "Paraphrase on Rigoletto" (Liszt). 3.2: The Strat Trio. "Andante Cantabile" (Tartini). "Orientale" (Oul-Parkes). "Spanish Dances, Nos. 1 and 2" (Mozzkowski). 3.12: Edmund Dugan. "Granfather and Little Nell," from the "Old Curiosity Shop" (Charles Dickens). 3.27: The station orchestra. Overture. "Saul" (Bazzini). 3.57: E. Burke (contralto). "Fascinating Bay" (Furcell). 4: Percy Code (Trumpet). "O Dry Those Tears" (del Riego). 3.50: The station orchestra. Selection, "La Traviata" (Verdi). 4.0: Bernard Manning (bass-baritone). "Six No More, Ladies" (Aitken). "King Charles" (White). 4.7: Tasman Pieran (cello). "Nina" (Pergolesi). 4.14: The station orchestra. "A Dervish Chorus" (Sebek). "Twilight" (Cesek). 4.24: Elaine Burke (contralto). "The Early Morning" (Fidel). "Down by the Sally Garden" (MacDonald Shaw). 4.31: A. Anderson (clarinet). "Ma Normanby" (Lazarus). 4.36: The station orchestra. "Andante from Fifth Symphony" (Tschalkowsky). 4.46: Bernard Manning (bass-baritone). "The Lute Player" (Allaire). "Tasman Winds" (Russian). 4.53: The station orchestra. Overture. "Le Philtre" (Auber). 5.0: "Herald" news service. Stock Exchange information. Acceptances and barrier positions for the Ascenda Park races on Wednesday. 5.15: Close down. During the afternoon progress scores of the cricket match, England v. Tasmania, will be broadcast as they come to hand.

#### EVENING SESSION.

Announcer: Maurice Dudley. 6.0: Answers to letters and birthday greetings by "Billy Bunny." 6.25: Musical interlude. 6.30: Captain Donald MacLean, "Adventure by Sea and Land." 6.45: "Billy Bunny" is back again.

#### NIGHT SESSION.

Announcer: Maurice Dudley. Accompanist: Agnes Fortune. 7.5: Stock Exchange information. 7.15: Market reports. 7.5: News session. 7.42: Birthday greetings. 7.45: "Out of the Dust" (Woodford-Findon), selected. 8.29: The Station Orchestra, selection, "Eugene Onegin" (Tschalkowsky). 8.39: Molly MacKay (soprano). "Syn-nove's Song" (Kerou). "When at Morn" (Schumann). 8.48: The Station Orchestra, "Incidental Music" (Coleridge Taylor). 8.59: Bernard Manning (bass-baritone), selected. 9.3: The Station Orchestra, "Overture to an Irish Comedy" (Ansell), selected. 9.15: Professor R. J. A. Berry, "The Great American Language." 9.30: Second Act, "Dick Whittington and His Cat." Direction, William Anderson. Cast: Demon King Rat, Darvall Thomas; Fairy Queen, Florence Sullivan; Spirit of the Dance, Kathleen Butler; Dick Whittington, a lad without friends and money, Ida Newton; Alice Fitzwarren, a lass who is sweeter than honey, Mae Seaton; Dame Wattleblossom, a cunning old devil, sneaking old crook, Joe Brennan; Idle Jack, a lazy young rascal, a real idle brat, A. G. Spry; Baron Fitzwarren, the father of Alice, of this you all know, B. S. Mont; The Cat, Dick's only friend in weal or in woe, Theo. Foster; Sultan of Morocco, second potentate, with riches galore, Darvall Thomas; Chamberlain, who takes care of the harem of ladies a score, Jack Hodges; Tom, Master of Hounds, a great favorite with the ladies, Jean Cooksley. Musical numbers: Scene 1, "Greetings to Thee," opening ensemble; "Boom, Boom, by the Sea," Tom and the Sailors; "Don't do that to the Poor Puss Cat," Dame; "Lonely Little Bluebird," Alice; "Our Quartette," Dame, Baron, Jack Sultan; "To the Palace,"

general ensemble. Scene 2—"What Happened to Rose," Dame and Baron; "Dream House," Dick and Alice. Scene 3—"Perce Dance," dancing ensemble; "Adagio et Waltz," Theo. and Kathleen; "Persian Rug," the Sultan; "Tin Pan Parade," the Tiny Tots; "Happy Days," Dame and Idle Jack; "Dance All Nations," Harlem Ladies. Scene 4—"Gotta Big Date," Dick; Chiquita, Fairy Queen. Cat. 10.40: "Argus" news service; meteorological information; announcements. 10.51: The Radi-o-Aces, "Ups and Downs" (Rose); "I Can't do without You" (Berlin); "Mississippi Mud" (Hartman); "Tin Pan Parade" (Whiting); "Day Dreams" (Hailam); "Jeannine" (Gilbert); "Dream House" (Fox); "Tiger Rag" (Moore); "That's my Weakness Now" (Slept); "Get Out and Get Under the Moon" (Tobias); "Sleepy Baby" (Kahn); "The Prune Song" (Crumit); "Sincerely I Do" (Davis); "Sally Rose" (Friend); "Good-night Waltz" (Bibo). 11.40: God Save the King.

### 3AR

#### EVENING SESSION

Announcer: C. J. O'Connor. 6.0: Sweet solace on the Scraphins. 7.0: "Herald" news. 7.5: Sweet solace. 7.30: Results of cricket, England v. Tasmania, at Hobart.

#### NIGHT SESSION

Announcer: John Stuart. 8.0: J. Howlett Ross will speak on "Sir Edmund Barton," Australia's ablest son. 8.15: A talk under the auspices of the Historical Society of Victoria. 8.30: Alf Firman, "Book of Yesterday, To-day, and To-morrow." 8.40: Ned Tyrrell's Radi-o-Aces: "Blue Berry Land" (Bryan), 8.50: Jean Sinclair, contralto; "Madrigal" (Chaminade). 8.53: Ned Tyrrell's Radi-o-Aces: "Polka" (Zamecnik), "Back in Your Own Back Yard" (Johnson), "Let a Smile be Your Umbrella" (Fair). 9.3: Jessie Batchelor: "Night-Lark a Rose" (Nevin). 9.6: Ned Tyrrell's Radi-o-Aces: "Tell Me To-night" (Little), "When You Know Me" (Baden), "Tom Berry, Sally" (Kahn). 9.16: Chas. Terwasis, baritone, "The Old Super" (Stanford). 9.19: Ned Tyrrell's Radi-o-Aces: "Dream House" (Fox), "Jeannine" (Gilbert), "Red Head" (Ernbeck). 9.29: Jean Sinclair, contralto; "Kate Dalrymple" (Bevan). 9.32: Ned Tyrrell's Radi-o-Aces: "Rose of Monterey" (Guy), "Ben-Hur" (Lewis). 9.42: Jessie Batchelor, mezzo: "Birth of Morn" (Leoni). 9.45: Ned Tyrrell's Radi-o-Aces: "Jazz Master"—piano solo (Mayerel), "Hum and Strum" (Meyers), "Don't Ory, Baby" (Kahn). 9.56: Chas. Terwasis, baritone: "For the Green" (Lohr). 9.58: Ned Tyrrell's Radi-o-Aces: "Constantinople" (Carlton), "That Melody of Love" (Donaldson), "Anything You Say" (Donaldson). 10.8: Jean Sinclair, soprano, selected. 10.11: Ned Tyrrell's Radi-o-Aces: "In Bamboo Garden" (Donaldson), "Well Have a New Home in the Morning" (Buck). "Down Home-Rag" (Sweetman). 10.22: "Age" news service, exclusive to 3AR; results of cricket, England v. Tasmania, at Hobart. God Save the King.

### 4QG

#### EARLY MORNING SESSION.

7.43 a.m.: Time signals. 7.45: News service. 8.0: Some electric records. 8.15: News service. 8.30: Close down.

#### MORNING SESSION.

11: Music. 11.5: Social news. 11.15: Lecture arranged by the National Council of Women of Queensland. 11.30: Music. 11.35: More social news. 11.45: Wurlitzer organ. 12 (noon): Close down.

#### MID-DAY SESSION.

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

#### AFTERNOON SESSION.

3.0: A programme of electrically reproduced records. 3.30: Mail train running times. 4.15: This afternoon's news. 4.30: Close down.

#### EARLY EVENING SESSION.

6.0: Mail train running times; mail information; shipping news. 6.5: A programme of electrically reproduced records. 6.25: Commercial announcements. 6.30: Bedtime stories conducted by "The Sandman." 7.0: News in brief. 7.5: Stock Exchange news. 7.8: Metal quotations. 7.7: Market reports. 7.25: Feawick's stock report. 7.40: Weather information. 7.40: Announcements. 7.43: Standard time signals. 7.45: Lecture, "Pork Products for the Lunch-table," by Mr. E. S. Shelton (Instructor in Pig Raising).

#### NIGHT SESSION.

A programme of old-time and popular music. 8.0: From the Studio, The Station Orchestra (Conductor, A. E. Featherstone), novelty selection, "A Ballad Ripe" (Part 1) (Ashton). 8.9: Elsa Vincent (soprano). "The Arrow and the Song" (Baile). "The Meeting of the Waters." 8.18: The Studio Orchestra, valse, "Grand Opera Favorites" (Hennberg). 8.26: A. E. Herald (baritone), novelty selection, "The Arab's Farewell to his Steed." "When 's Moonlight on the Silvery Rio Grande" (M'Allister). 8.34: Hilda Woolmer (organist), "Largo" (Handel). 8.40: Jean MacTaggart (soprano), "Consider the Lilies" (Glover). "Cherry Ripe" (Form). 8.48: Tom Muller (clouictonist), "Intermezzo" from "Cavalleria Rusticana." 9.15: Ernest Harper (baritone), "The Vicar of Bray" (Old Eng.). "Asleep in the Deep" (Petrie). 9.25: The Studio Orchestra, valse, "When You and I Were Young, Maggie." "Love's Old Sweet Song" (Molloy). 9.30: A recital of electrically reproduced records. 10.0: The "Daily Mail" news. "The Courier" news; weather news. Close down.

**5CL**

**AFTERNOON SESSION.**

3.0: G.P.O. chimes. 3.1: International cricket scores, England v. Tasmania, at Hobart. 3.2: Descriptive music, H.M.V. recordings, "In a Persian Market" (Ketelbey); "In a Chinese Temple Garden" (Ketelbey). 3.11: Senia Chostiakoff, Russian tenor, "Russian Gypsy Song" (Rorniloff); "Diane" (Polack). 3.18: Tom Dorling, banjolist, selected numbers. 3.25: Beryl Counter, mezzo. 3.31: Chamber music, H.M.V. recordings, by Virtuoso String Quartette—Quartette in D Major, 1st Movement—Poco Lento; Allegro—Poco Lento; 2nd Movement—Scherzo—Vivace; 3rd Movement—Larghetto. 4.0: G.P.O. chimes. 4.1: International cricket scores, England v. Tasmania, at Hobart. 4.3: Senia Chostiakoff, Russian tenor. 4.10: Tom Dorling, banjolist, selected numbers. 4.17: Beryl Counter, mezzo. Soprano recital, H.M.V. recordings. 4.24: The California Humming Birds, "She's a Great, Great Girl" (Woods); Jesse Crawford, Wurlitzer organ, "Just Like a Melody Out of the Sky" (Donaldson); Johnny Marvin, tenor, "Angel" (Burns-Donovan); Paul Whiteman and his Orchestra, "Suite of Serenades," Spanish, Chinese, Cuban, Oriental (Herbert); The Revellers, "Mammy Is Gone" (Henderson), "Dream River" (Brown); Johnson's Hotel Statler Orchestra, Foxtrot, "Last Night, I Dreamed You Kissed Me" (Lombardo) foxtrot, "Tell Me You Love Me" (Polack); Henry Enets and Orchestra, foxtrot, "That's My Mammy" (Nelson), "When You're Smiling" (Shav). 4.56: International cricket scores, England v. Tasmania, at Hobart. 4.58: S. O. Ward and Co.'s Stock Exchange information. 5.0: G.P.O. chimes, and close down.

**EVENING SESSION.**

6.0: G.P.O. chimes. 6.1: International cricket scores, England v. Tasmania, at Hobart. 6.3: Children's Happy Moments, birthday greetings, correspondence, songs and stories, by "Miss Wireless." 6.30: Interlude of dinner music on the Sonora (H.M.V. recordings). 6.57: International cricket scores, England v. Tasmania, at Hobart. 7.0: G.P.O. chimes. 7.1: S. O. Ward and Co.'s Stock Exchange information. 7.5: General market report. 7.10: Mr. H. B. Barlow (Chief Dairy Instructor), talk on "The Quality of Dairy Produce." 7.30: The 5CL Twinkler, Boys' Club—Entertainment by "The Twinkler" (Mr. F. J. Hills).

**NIGHT SESSION.**

8.0: G.P.O. chimes. A Silver Band Concert. 8.1: Magill Vice-regal Band, glee, step, "The Middy"; overture, "The Village Chimes." 8.13: Arnold Matters, baritone, "Passing By" (Purcell), "Five Eyes" (Trus). 8.24: A one-act play, by Ray Welsh (Gibbs). 8.19: Magill Vice-regal Band—Waliz, "Ever Kook, and others." 8.44: Senia Chostiakoff, tenor, "The Red Sarafan" (Russian Folk Song); "I Pitch My Lonely Caravan" (Cottrell). 9.0: G.P.O. chimes. 9.1: Meteorological information. 9.2: Overseas grain report. 9.3: Magill Vice-regal Band—Morceau, "Bells Across the Meadow" (Ketelbey). 9.10: Arnold Matters, baritone, "Hear Me, Ye Winds and Waves" (Bancroft); "My Captain" (Scott). 9.15: Paul Jeele, saxophonist, "Gloria" (Weidloft), "Popular Melodies." 9.22: Florence Rendall, soprano, "The Fairy Pipers" (Brewer); "When the Heart is Young" (Balk). 9.28: Magill Vice-regal Band—Sketch, "Down South." 9.34: Senia Chostiakoff, tenor, "Autumn Astors" (Haritto); "Song of Stanka Rah-zeen" (Russian Folk Song). 9.40: Magill Vice-regal Band—Selection, "Beethoven's Works." 9.52: Florence Rendall, soprano, "The Moorish Maid" (Parker); "Everwhere" (Elliott). 9.58: Paul Jeele, saxophonist, "Saxophobia" (Weidloft); "Mighty lak a rose." 10.4: Magill Vice-regal Band—Quickstep, "Cavalry of the Clouds." 10.15: "The Advertiser" general news service; meteorological information. 10.30: The dance is the thing—by courtesy of J.L.O. Melbourne, modern dance numbers, by the famous Radi-o-Aces. 11.10: God Save the King.

**7ZL**

**MIDDAY SESSION**

Announcer: Jack Broadbent. 11.30 a.m.: His Master's Voice in Moments Merry and Musical. 11.34: Special Midlands weather forecast. 11.35: "His Master's Voice" in Moments Merry and Musical. 11.55: Tasmanian Stations' 9 a.m. weather report; shipping information; ships within wireless range; mail notices; housewives' guide. 12 noon: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 12.20: British official wireless news. 12.30: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 12.55: "Mercury" news service; produce sales, held at Railway. 1.5: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary.

**AFTERNOON SESSION**

Announcer: Jack Broadbent. 3.0: G.P.O. clock chimes the hour. 3.1: "His Master's Voice" in Moments Merry and Musical. 3.4: Midlands weather forecast. 3.5: "His Master's Voice" in Moments Merry and Musical. 3.20: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 3.30: "His Master's Voice" in Moments Merry and Musical. 4.5: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 4.45: Close down. 5.30: Transmission from the T.C.A. Ground, cricket match, English XI. v. Tasmania, described by A. M. O'Leary. 6.0: All sporting results to hand.

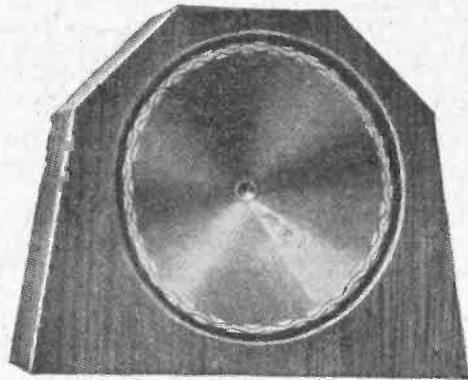
**EARLY EVENING SESSION**

Announcer: Jack Broadbent. 6.15: "His Master's Voice" in Moments Merry and Musical. 6.45: Little Sheila Carrol will recite to the wee folk—"The Ladies of St. James." "Miss Loo." 7.0: Answers to letters and birthday greetings by "Uncle David." 7.5: "His Master's Voice" in Moments Merry and Musical. 7.15: News session.

**EVENING SESSION**

Announcer: Jack Broadbent. 7.30: Geo. Collis, Tasmanian's champion wrestler, will speak on "Air and Physical Culture." 7.45: Miss Charity Wynne, Tasmania's leading dancing instructor, will speak on "The Masterpieces of Poise and Pose." 8.0: G.P.O. clock chimes the hour. 8.6: Transmission from the Prince of Wales Theatre, Hobart—Ted McCann and his Orchestra. 9.50: News session; district weather report. 10.0: G.P.O. clock chimes the hour. "God Save the King."

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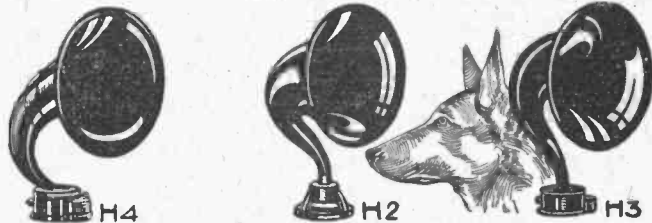


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## Local Programmes, Tuesday, January 22

### 2FC

#### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

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

#### MORNING SESSION.

Announcer: A. S. Cochrane.

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

#### MID-DAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast, rainfall. 12.5: Studio music. 12.10: Summary of news, "Sydney Morning Herald." 12.15: Rugby wireless news. 12.18: A reading. 12.30: Studio music. 1.0: "Big Ben;" weather intelligence. 1.3: "Evening News" mid-day news service; Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Studio music. 2.0: "Big Ben;" close down.

#### AFTERNOON SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: Record recital. 3.0: "Big Ben;" pianoforte reproduction. 3.15: Popular music. 3.37: Eric Cox, boy soprano. 3.45: A reading. 4.0: "Big Ben;" Bessie Wagner, contralto—(a) "My Ships" (Barratt), (b) "Beyond the Night" (Meade). 4.7: Eric Cox, boy soprano. 4.14: From the Wentworth—The Wentworth Cafe Dance Orchestra, conducted by Jimmy Ekins. 4.24: From the Studio, popular music. 4.45: Third call of the Stock Exchange. 4.47: Popular music. 5.0: "Big Ben;" close down.

#### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The children's session, conducted by the "Hello Man"—Letters and stories, music, and entertainment. 5.50: Dalgety's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby wireless news. 6.50: Late sporting news. 7.0: "Big Ben;" late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Russian Peasant Dance" (Lenar), (b) "Wildflower" (Youmans), (c) "Moonlight" (Finck), (d) "Sied Ohne Wort" (Mendelssohn), (e) "Liebeslied" (Kriesler), (f) "Reconciliation Polka" (Drigo).

#### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Programme announcements. 7.45: Pianoforte reproduction. 7.52: Popular music. 8.0: "Big Ben." From Manresa Hall North Sydney, the N.S.W. Tramway Band. Bandmaster, J. M. Herron.  
(a) "Fantasia," Queen of the Ballet (Gelbourne).  
(b) Cornet duet, "Sandy and Jock" (Sutton).  
8.20: From the Studio, Russell Rix, baritone.  
8.27: Vincent Aspey, violinist.  
8.34: A sketch by Scott Alexander, a delightful comedy of misunderstanding, "Mixing the Dates" (Ball).  
8.44: From Manresa Hall, North Sydney—The N.S.W. Tramway Band.  
(a) Selection Sir Henry Bishop's Songs (Hawkins).  
(b) March, "Dusky Dancers" (Eden).  
9.0: "Big Ben." From the Studio; weather.  
9.1: Russel Rix, baritone.  
9.7: Vincent Aspey, violinist.

9.14: From Manresa Hall, North Sydney the N.S.W. Tramway Band—  
(a) March, "Bound for Home" (Raymond).

(b) Petite selection, "Maritana" (Wallace).  
(c) Fox trot, "Southern Belle" (Hume).  
9.30: From the Studio—A sketch by Scott Alexander, a comical domestic farce—"Jim Does the Mangling" (Ball).  
Scene: Jim's Kitchen.

9.40: From Manresa Hall, North Sydney, the N.S.W. Tramway Band—  
Waltz, "Suliana" (Raymond).  
10.0: "Big Ben." From the Studio—Jill Valentine in popular melodies.

10.7: The Studio Dance Band, conducted by Cec. Morrison.

10.14: Jill Valentine, in popular melodies.  
10.21: The Studio Dance Band, conducted by Cec. Morrison.

10.30: Late weather report and announcements.

10.32: The Studio Dance Band.  
10.57: To-morrow's programme.  
10.59: The Studio Dance Band.  
11.30: National Anthem; close down.



Cec. Morrison,  
conductor of the  
studio dance  
band appearing  
at 2FO to-night.

### 2BL

#### MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: G.P.O. clock and chimes. Metropolitan weather report. 8.1: State weather report. 8.2: Studio music. 8.10: G.P.O. clock and chimes. News service from the "Daily Telegraph Pictorial." 8.25: Studio music. 8.30: G.P.O. clock and chimes. Studio music. 8.35: Information, mails, shipping, arrivals, departures, and sailings. 8.38: News service from the "Daily Telegraph Pictorial." 8.45: G.P.O. clock and chimes. Studio music. 9.0: G.P.O. clock and chimes. Studio music. 9.30: Half-an-hour with silent friends. 10.0: G.P.O. clock and chimes. Close down.

#### MID-DAY SESSION.

Announcer: Basil Kirke.

Note: Race results will be broadcast by courtesy of the "Sun" newspapers. 11.0: G.P.O. clock and chimes. 2BL Women's Sports Association session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield. 12 noon: G.P.O. clock and chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "Sun" mid-day news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital. 2.0: G.P.O. clock and chimes. Close down.

#### AFTERNOON SESSION.

Announcer: Basil Kirke.

Accompanist: Kathieen Roe

3.45: G.P.O. chimes. Popular music. 4.0: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.10: From the studio. Alfred Edwards, tenor. 4.17: Doris Parker,

mezzo-soprano. 4.24: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.30: From the studio, Alfred Edwards, tenor. 4.37: "Sun" news service. 4.40: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.50: Doris Parker, mezzo-soprano. 4.52: "Sun" news service. 5.0: Our serial story. 5.10: Pianoforte reproduction. 5.20: Popular music. 5.35: Producers' Distributing Society's poultry report. 5.37: Features of the evening's programme.

#### EARLY EVENING SESSION.

Announcers: Basil Kirke

J. Knight Barnett.

5.40: Children's session. Music and entertainment, letters and stories. 6.30: "Sun" news and late sporting. 6.40: 2BL Dinner Quartette, (a) "Souvenir Disette" (Fauchoy), (b) "Two Salon Pieces" (Ireland), (c) "In a Chinese Temple-Garden" (Ketilbey), (d) "Softly Awakes My Heart" (Saint-Saens), (e) "Tesoro Mio" (Becucci). 7.10: Australian Mercantile, Land and Finance Co's report; weather report and forecast by courtesy of Government Meteorologist; Producers' Distributing Society's fruit and vegetable market report; grain and fodder report, "Sun"; dairy produce report "Sun"; 7.25: Mr. Pim and Miss Pam in advertising talks and nonsense. 7.55: Programme and other announcements.

#### EVENING SESSION.

Announcer: J. Knight Barnett.

Accompanist: G. Vern Barnett.

8.0: G.P.O. clock and chimes. The Music Makers.

8.30: From the Rose Bay Winter Garden, the Rose Bay Winter Garden Theatre Orchestra, under the conductorship of Lionel Hart.

8.30: From the studio, Theodore Atkinson, baritone.

8.37: The Music Makers.

8.52: Ivy Green, soprano.

8.59: Weather report.

9.0: G.P.O. clock and chimes. A talk on the aborigines by "Bringa."

9.15: The Music Makers.

9.25: Professor and Polly Pedagogue in dialogue—ponderous and frivolous; a musical sketch.

9.35: Theodore Atkinson, baritone.

9.42: The Music Makers.

9.55: Ivy Green, soprano.

10.2: Professor and Polly Pedagogue, "The Nightingale and the Rose" (Oscar Wilde).

10.12: From the Rose Bay Winter Garden, the Rose Bay Winter Garden Theatre Orchestra, under the conductorship of Lionel Hart.

10.27: From the studio, to-morrow's programme.

10.30: National Anthem. Close down.

### 2GB

10.0 a.m.: Music. 10.10 a.m.: Happiness

Talk, by A. E. Bennett. 10.20 a.m.: Music.

10.30 a.m.: Women's session, by Miss Helen J. Beegling. 11.30 p.m.: Close down. 2.0

p.m.: Music. 2.5 p.m.: Women's Radio

Service, by Mrs. Dorothy Jordan. 2.50 p.m.:

Music. 3.15 p.m.: Close down. 5.30 p.m.:

Children's session, by Uncle George. 7.0

p.m.: Stock and market reports, by New

Zealand Loan and Mercantile Agency, Ltd.

7.15 p.m.: Music. 7.30 p.m.: Feature Story.

8.0 p.m.: 2GB Instrumental Trio (Miss Ada

Brook, Mr. Cecil Berry, Mr. Cedric Ashton).

3.15 p.m.: Clement Hosking Vocal Quartette

in selections from light opera (Miss Elsie

Brown, Miss Eva Croft, Mr. Thomas Hall,

Mr. Clement Hosking. 8.30 p.m.: A humor-

ous interlude by Mr. Jack Win and Mr.

Heath Burdock. 8.35 p.m.: Violin solos by

Mr. Cecil Berry. 8.45 p.m.: Songs by Mr.

John Caffrey. 8.55 p.m.: Pianoforte solo

by Miss Jeanette Paterson. 9.0 p.m.: Weather

report. 9.3 p.m.: Address. 9.15 p.m.:

Songs by Miss Elsie Brown. 9.25 p.m.: "Cello

solos by Mr. Cedric Ashton. 9.35 p.m.: A

humorous interlude by Mr. Jack Win and

Mr. Heath Burdock. 9.40: Clement Hosking

Vocal Quartette. 9.50 p.m.: 2GB Instrumental

Trio. 10.5 p.m.: Orchestral Music. 10.30

p.m.: Close down.

*Ever*  
**New Adventures**  
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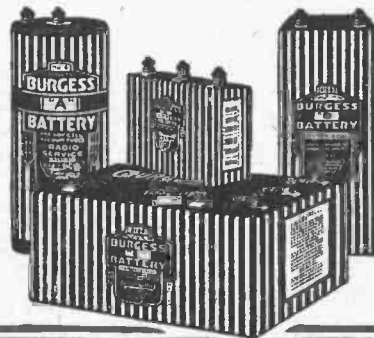
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Interstate Programmes, Tuesday, January 22

3LO

EARLY MORNING SESSION
7.15: Morning melodies. 7.20: Morning exercises to music. 7.30: Stock reports; market reports; general news; shipping; sporting information. 8.0: Melbourne Observatory time signal. 8.1: Morning melodies. 8.15: Close down.

MORNING SESSION

11.0: 3LO's Different Dainties for the Daily Dinner—today's radio recipe. 12.30: Captain Donald MacLean will speak on "Famous Women of History." 11.20: Musical interlude. 11.25: Mrs. Dorothy Sils, "Homecrafts." 11.40: Sonora recital. 12 noon: Melbourne Observatory time signal; express train information. 12.1: Metal prices, received by the Australian Mines and Metals Association, from the London Stock Exchange this day; British official wireless news from Rugby; Reuters's and the Australian Press Association's cables; "Argus" news service. 12.15: Newmarket stock sales; official report by the Associated Stock and Station Agents, Bourke Street, Melbourne.

MIDDAY SESSION

12.20: The station orchestra—overture, "Tempelweik" (Kerber Beitz). 12.30: Bernard Manning, bass-baritone (by permission of J. C. Williams & Co. Ltd.), "At Sunrise" (Ronald), "Drinking" (Old German). 12.37: Stock Exchange information. 12.40: Myrtle Robertson, violin, "Gondoliers" (Ries), "Hinnahut" (Stoessel). 12.47: Molly McKay, soprano, "Shepherd, Thy Demeanour Vary" (Brown), "My Lovely Celia" (Monro). 12.54: The station orchestra—"Two Favourite Classics" (Schubert). 1.4: Meteorological information; weather forecasts for Victoria, New South Wales, Tasmania, and South Australia; ocean forecasts; river reports; rainfall. 1.11: Bernard Manning, bass-baritone, "Lorraine, Lorraine, Lorraine" (Bachel), request number. 1.18: Agnes Fortune, piano—"Duetto" (Mendelssohn). 1.37: Molly McKay, soprano—"Se Saran Rose" (Arditi), request number. 1.45: Close down.

AFTERNOON SESSION

Announcer: Frank Hatherley. Accompanist: Agnes Fortune. 2.15: Radi-o-Aces—"Vivini Creeper" (Wade), "Little Red Cabin of Dreams" (Harley), "Last Night I Dreamt You Kissed Me" (Kahn). 2.24: Jean Sinclair, soprano—"O, What Comes over the Sea?" (Cokeridge-Taylor). 2.31: Radi-o-Aces—"Who Knows" (Dixon), "To-day, To-morrow, for Ever" (Nichols), "Ahi Sweet Mystery of Life" (Herbert). 2.40: Edward Hocking, tenor—"The Spirit Flower" (Tipton), "Madellina" (W. G. James). 2.47: The Radi-o-Aces—"Saskatchewan" (Leslie), "Down Home Rag" (Sweetman), "Henry's Made a Lady Out of Lizzie" (O'Keefe). 2.56: Constance Flavel, soprano—"The Call of the Maytime" (Brahe), "Rights of a Rose" (Nevin). 3.3: Radi-o-Aces—"Lucky in Love" (Henderson), "The Best Things in Life are Free" (Henderson), "In a Bamboo Garden" (Donaldson). 3.13: The Radi-o-Aces—"The Western Wind" (Brahe), "The Radi-o-Aces—"Anything You Say" (Donaldson), "That Melody of Love" (Donaldson), "Constellation" (Carlson). 3.26: Jean Sinclair, soprano—"In Haven" (Elgar), "The Fleeting Hour" (Fox). 3.35: The Radi-o-Aces—"Don't Cry, Baby" (Kahn), "Hum and Strum" (Meyers), "Lady of Love" (Nay Eaton), Edward Hocking, tenor—"Sometime and Somewhere" (Power), "The Little Boy" (Moore). 3.51: The Radi-o-Aces—"Jazz Master," piano solo (Mayeral), "In My Bouquet of Memories" (Lewis), 4.0: Constance Flavel—"Sentimental Baby" (Hester). 4.1: The Radi-o-Aces—"Red Head" (Embury), "Jeannine" (Gilbert), "Dream House" (Fox). 4.15: J. Alexander, baritone—"The Adjutant" (Fisher), "Little White Rose" (Cudman). 4.20: The Radi-o-Aces—"M. M. Bally" (Kahn), "When You Know Me" (Baden), "Tell Me To-night" (Little). 4.30: Sonora recital. 4.36: Herald's news service; Stock Exchange information. During the afternoon, the 24th Battalion Band, Fakenham, and Kilmore races will be given as they come to hand. 5.10: Close down.

EVENING SESSION

Announcer: Maurice Dudley. 6.0: Answers to letters and birthday greetings by "Billy Bunny." 6.25: Musical interlude. 6.30: "Little Miss Kookaburra" at the request of many listeners. "Kookaburra" will be the first part of "The Story of Robinson Crusoe." 6.50: "Billy Bunn" will tell you a quaint little story.

NIGHT SESSION

7.5: Stock Exchange information. 7.15: Market reports. 7.30: News session. 7.43: Birthday greetings. 7.45: Under the auspices of the University Extension Board, J. M. Roe, A.M.C., will speak on "Unconscious Mind." 8.0: A Maker of History: Sir John Lubbock, by Bernard March, "Senlao Abbey," march, "Strathcona" (Rimmer). 8.10: Jean Sinclair, soprano—"The Gleaners' Slumber" (Sung), (Walktho), "What O'Clock?" (McGeoch). 8.17: The 24th Battalion Band—overture, "Golden Cross" (Greenwood), 8.27: Syd. Extor, tenor—"The Sailor's Grave" (Sullivan), "Sometimes" (McGeoch). 8.34: Agnes Fortune, piano—"Serenade of the Dolia" (Hussy), "Little Shepherd" (Debussey). 8.44: Jean Sinclair, soprano—"Mellandise in the Wood" (Gootz), "Summer Rain" (Willaby). 8.51: 24th Battalion Band—"Will of the Wisp" (Bourne). 9.0: Syd. Extor, tenor—two songs from "A Sheaf of Songs" by Conroy-Clark. 9.7: 24th Battalion Band—"Intermezzo," "Southern Smiles" (Kelly). 9.15: Prof. R. J. A. Berry, "Beauty and the Beast"—principal characters. Dynamic Detroit and London Mission. 9.20: The Station Orchestra. His Majesty's Theatre (by permission of J. C. Williams, Ltd.), "The Desert Song," Act II. Music by Sigmund Romberg. Book by Otto Harbach, Oscar Hammerstein 2nd, and Frank Handell. Produced by George A. Highland. Cast of characters: Sid El Kar (the Red Shadow's Lieutenant), Herbert Browne, Mindar, Cecil Pawley, Hassi, Lou Vernon; Neri (first appearance in Australia), Maud Pomeroy; Nadi

(first appearance in Australia), John Ronald, Benjamin Kidd (society correspondent), Paris "Daily Mail"—first appearance in Australia), Herbert Munnin; Pierre Birabeau (The Red Shadow), Lance Fairfax; Capt. Paul Fontaine, Reginald Dandy; Azuri, Stephanie Deste; Lieutenant La Vergne (first appearance in Australia), Ronald Pomeroy; Lieutenant du Bassac, Owen Trappes; Margot Novalet (first appearance in Australia), Virginia Perry; General Birabeau (Governor of a French Moroccan Province), Peter Gawthorne; Susan (his ward), Lorna Helms; Ethel, Aileen Barton; All Ben Ali (Caid of a Rif tribe), Douglas Herald; Clementina, (a Spanish Lady—first appearance in Australia), Maud Zimbia. Act 11: Scene 1, The Harem of All Ben Ali (afternoon); Scene 2, A Corridor (a few minutes later); Scene 3, the Room of the Silken Couch; Scene 4, the Edge of the Desert (the following morning, half an hour before sunrise); Scene 5, Courtyard of General Birabeau's House (two days later). Musical numbers: "Song of the Brass Key," Maud Zimbia, chorus ladies, and ballet; "One Good Boy Gone Wrong," Herbert Munnin and Maud Zimbia; "Eastern and Western Love"—(a) "Let Love Go" (Douglas Herald and chorus gentlemen); (b) "One Flower in Your Garden," Herbert Browne and chorus gentlemen; (c) "One Alone," Lance Fairfax and chorus gentlemen; "The Star Song," Virginia Perry; Dramatic Finalette; "Farewell," Lance Fairfax and chorus gentlemen; Introduction, Scene V, Virginia Perry and chorus ladies; Reprise of "It," Lorna Helms, Herbert Munnin, and ladies of the ballet; "Dance of Triumph," Douglas Herald; Finalet. From the studio.—Note: The usual nightly "Argus" news service, British official wireless news, and meteorological information will be broadcast from 3AR Broadcasting station, 10.20; also Eric Welch's selections for Aspendale Park races to-morrow (Wednesday). 11.1: The Radi-o-Aces—"The Dance of the Blue Danube" (Fischer), "Is It Gonna Be Long" (Wing), "In a Bamboo Garden" (The Coe), "Anything of Yesterday" (Berlin), "Forever More" (Bennett), "Nebraska" (Altken), "That's My Weakness Now" (Stept), "Get Out and Get Under the Moon" (Topping), "In a Bamboo Garden" (Donaldson), "Anything You Say" (Donaldson), "Goodnight, Waltz" (Bibe), "Goodnight Song." 11.40: "God Save the King."

3AR

Announcer: C. J. O'Connor. 10.0: G.P.O. clock says "Ten." 10.1: "Age" market reports, farm and station produce, fruit, fish, vegetables, etc. 10.25: "Age" shipping reports, ocean forecast. 10.30: Mail notices; express train information. 10.35: "Age" forecast. 11.0: A gramophone recital of musical masterpieces. 12.30: Close down.

EVENING SESSION

6.0: Sweet solace on the Seraphina.

NIGHT SESSION

Announcer: John Stuart. Accompanist: Reg. Brown. 8.0: A. S. Kenyon, a talk on coins. Token Issue No. 3. "The Dominions and Colonies." 8.15: A. G. Kelson, "Fox" (The Station Orchestra). "The Station Orchestra, Overture," "Peter Schnoll" (Weber), "Synco-pated Pieces" (Coates). 8.45: Bernard Manning, bass—"The Windmill" (Nelson), "The Blind Ploughman" (Clarke). 8.52: The Station Orchestra—"Fantasia," Johannes (Tschakowsky). 9.2: Molly McKay, soprano—"Morning" (Hurlstone); two small songs by Hurlstone, "Bells," "Darkness." 9.8: Captain Donald McLean—"Midst Shattered Wrecks and Treasures vast The sunken wealth of ages past." G. Susses Evans. 9.24: The Station Orchestra—"Andante from Fourth Symphony" (Schubert). 9.29: The O'Kays, in a special programme. 9.56: The Station Orchestra—overture, "Don Juan" (Mozart). 10.1: Bernard Manning, bass—"Reques Items." 10.8: The Station Orchestra—Selection, "Tren" (Tienry). 10.14: Molly McKay, soprano—"A Mood" (Travers), "Echo Song" (Eckert). 10.21: "Age" news service, exclusive to 3AR. "Argus" news service; meteorological information; British official wireless news from Rugby; announcements. Eric Welch's anticipations for Aspendale Park races on Wednesday. God Save the King.

4QG

EARLY MORNING SESSION.

7.43 a.m.: Time signals. 7.45: News service. 8.0: Some electric records. 8.15: News service. 8.30: Close down.

MORNING SESSION.

11 a.m.: Music. 11.5: Social news. 11.15: Talk on "Home Crafts" by Mrs. R. L. Reid. 11.30: Music. 11.35: More social news. 11.45: News. 12.0 (noon) Close down.

MID-DAY SESSION.

1 p.m.: Market reports and weather information. 1.20: Lunch-hour music. 2.0: Close down.

AFTERNOON SESSION.

3.0: A programme of electrically reproduced records. 3.30: Mail train running times. 4.15: This afternoon's news. 4.30: Close down.

EARLY EVENING SESSION.

6.0: Mail-train running times; mail information; shipping news. 6.5: Dinner music. 6.25: Commercial announcements. 6.30: Bedtime stories conducted by "Uncle Ben." 7.0: News in brief. 7.5: Stock Exchange news. 7.6: Metal quotations. 7.7: Market reports. 7.8: Fenwick's stock report. 7.30: Weather information. 7.40: Announcements. 7.43: Standard time signals. 7.45: Lecturette. "On the Wallay, Rural Reminiscences," No. 2, by J. F. Reid (Editor "Queensland Agricultural Journal").

NIGHT SESSION.

8.0: A programme arranged by Mr. Sydney May from the Studio, chorus, "Tis Thy Wedding Morning" (Cowan). Pat McOnigly (soprano), "Araby" (Nicholls), "What a Wonderful World" (Loehr), Agnes Kerr and Vera Parker (contraltos), vocal duet, "Sweet Content" (Blumenthal). Jack Land (tenor), "La Donna e Mobile" (Verdi). Lou Lambert (baritone), "Sea Fever" (Clarke). Bar Song, "Drink to Me only with Thine Eyes" (Britton). Jill Manners (soprano), "Jewel Song" (Gounod). John Steele (tenor), "For You Alone" (Ghee). Pat McOnigly (soprano) and Lou Lambert (baritone), duet, "In a Garden of Roses" (Sanderson). Vera Parker (contralto), "Wind in the Trees" (Goring Thomas). Part Song, "The Lass with the Delicate Air" (Arne). Agnes Kerr (contralto), "O Divine Redeemer" (Gounod). 9.0: Metropolitan weather forecast. Jill Manners (soprano) and Jack Land (tenor), vocal duet, "The Hour is Late" (Gounod). Lou Lambert (baritone), "Your Mother's Eyes" (Drummond). "Youth and a Day" (Drummond). Vera Parker (contralto), "Rose in the Bud" (Forster), "When Other Lads" (Baife). Part Song, "O Happy Eyes" (Elgar). P. McOnigly (soprano), "Quando me nno Soletta" (Puccini), Agnes Kerr (contralto), "Farewell" (Lidell). Don Barrientos and Jill Manners and John Steele (soprano and tenor), vocal duet, "Bird Song at Eventide" (Coates). Part Song, "Because" (d'Harlelot). Jack Land (tenor), "The Message" (Blumenthal). Yes, Let Me Like a Soldier Fall" (Wallace). Jill Manners (soprano), "A Young Girl's Song" (Phillips), "Lullaby" (Scott). Part Song, "The Martyrs of the Arena" (de Rillo), John Steele (tenor), "The Lover's Lullaby" (Leon). "Sigh No More" (Aiken). Bar Song, "John Peel" (Mrs. J. E. West). 10.0: The "Daily Mail" news; "The Courier" news; weather news; "Queenslander" bi-weekly news service for distant listeners. Close down.

5CL

MORNING SESSION.

Announcer: J. L. Norris. 11.0: G.P.O. Chimes. 11.1: Columbia recordings. Aloha Players—"Mile-high" (W. G. Kelson). B. Don Barrientos and his Orchestra, "Pauoa Like Behua" (Kino). 11.9: Hawaiian South Sea Islanders, "Hannle Bay" (Ali-hiken). 11.13: Hawaiian South Sea Islanders, "All Because of You" (Anahup). 11.16: "Economist," Kathleen Craft and Menu Talk. 11.30: Sonora. Half an hour with French composer, New Queen's Hall Orchestra, "Carmel" (Bizet). Overture, "Entr'acte, Act. 3." Ballet music, Act 4. 11.46: Dino Borgioli (tenor), Flower Song (Biret). 11.50: W. H. Santini (soprano), "The Old Man" (Crown). 11.54: Albert Goossens (baritone), "Le Marchisiale" (de L'Isle). 11.57: Royal Philharmonic Orchestra, "Prelude a l'Ames-miel d'Anne Faune" (Debussy). 12.0: G.P.O. Chimes. Columbia recordings. "After my Laughter, Game Tears" (My Ohio Home) (Donaldson). "Chloe" (Moret). "Goin' Home" (Fisher), "Down South" (Middleton). "12:15: "The Advertiser" general news service. 12.35: British official wireless news. 12.40: Violin recital. Columbia recordings. Sascha Jacobson (Kramer). Sascha Jacobson demonstrates in his record not only the broad and beautiful tone of his instrument, but his own unassailable supremacy as his master. S.A. Railway information. 12.57: Meteorological information. 1.0: G.P.O. Chimes. From St. Bartholomew's Church, Norwood. An organ recital by Frank Bowden. "Postlude" (Edin Dunkin). "To a Waterlily" (McDowell), "Londonderry Air" (Archibald). "The Star of Bethlehem" (from the Studio). 1.15: Fred Williamson (tenor), "One Hour," "Phyllida." 1.21: Lewis Jones (violinist), "Legende" (Wieniawski), "Canto Samoroso" (Elman). 1.27: From St. Bartholomew's Church, Norwood. Organ recital by Frank Bowden (continued), "Pastorale" (Page), "Shepherd's Lullaby" (Hewitt), "Mastoso" (Robert), "Allegro Final" (Herde). From the Studio: 1.45: Fred Williamson (tenor), "She is Far From the Land," "To You." 1.51: Lewis Jones (violinist), "Wagon Wheel" (Seymour), "Serenade" (Grieg). 1.55: Meteorological information. 2.0: G.P.O. Chimes, and close down.

AFTERNOON SESSION.

Announcer: J. L. Norris. 3.0: G.P.O. Chimes. 3.1: Sonora recital. Albert Ketelby and his Orchestra, "In a Fairy Land" (Suite) (Ketelby). 1. "The Moonlit Glade"; 2. "The Queen Fairy Dance." 3. "The Fairy's Song." 4. "The Star of Bethlehem" (Milton Hayes). Percy Crainger, "Cradle Song" (Brahms-Grainger), "Molly on the Shore"—Irish Reel (Grainger). His Majesty's Grenadier Guards Band. Willard Sanderson's Popular Songs (arr. J. Ord. Home). "I Wonder" (Drake). "Come West My Dear Son, Easter Flowers." Captain Mac, Friend of Mine. The Company Sergeant Major, Tired Hands. Up from Somerset, and Until. "The Land of Hope and Glory" (Benyon and Elgar). 3.30: Radio recital. "The Night of the Cross" (Sorensen), "Curtain" (Robert), "The Night with Betty Silence" (Robertson). 3.38: Seth Smith (banjoist), "Are You Thinking of Me To-night" (Gilbert), "Mexican Ride" (Grimshaw). 3.42: Dorothy Brock (soprano), "Tuff S. S. Wagon" (Pinder). "My Love" (Maud). "D'Harlelot". 3.48: Jenn Finlay (pianist), selected numbers. 3.54: Sania Chostakoff (tenor), "The Light Shades" (Zu-lloff), "For You Alone" (Geehl). 4.0: Seth Smith (banjoist), "The Royal Trumpeter's March" (Benyon). 4.05: Dorothy Brock (soprano), "The Promise of Life" (Cowan), "Lif's Lullaby" (Lane). 4.12: Jenn Finlay (pianist), selected numbers. 4.18: Twenty minutes with Paul Whiteman, and his Orchestra. Fox-trot, "Evening Star" (Turk).

"Get Out and Get Under the Moon" (Shay). Waltz, "Merry Widow" (Lehar). Fox-trot. "C-o-n-s-t-a-n-t-i-n-o-p-l-e" (Carlton). Waltz, "My Herö" (Strauss). 4.38: Rev. G. E. Hale, B.A., will speak on "The Art of Being Kind." 4.55: S. C. Ward and Co.'s Stock Exchange information. 5.0: G.P.O. Chimes and close down.

**EVENING SESSION.**

Announcer: Athol Lykke. 6.0: G.P.O. Chimes. 6.1: Children's happy moments. Birthday greetings, correspondence, songs, and stories, by "The Wattle Lady." 6.30: Interlude of dinner music on the Sonora (Columbia recordings). 7.0: G.P.O. Chimes. 7.1: S. C. Ward and Co.'s Stock Exchange information. 7.5: General Market reports. 7.10: 5CL's sporting service, by "Silvius." 7.22: Laurie M'Leod, talk on "The Art of Dancing." 7.40: Dr. Herbert Base-dow. M.A., M.D., M.P. "An Australian Talk."

**NIGHT SESSION.**

8.0: G.P.O. Chimes. 8.1 p.m.: Station Orchestra. Suite, "Casse Noisette" (Nutcracker), by Tschalkowsky, Senia Chostakoff (tenor). "The Volga Boatman" (Russian folk song), "Legend" (Tschalkowsky). Station Orchestra. "Malaquena," from opera "Boabdil" (Moszkowski). Aileen Newlyn (soprano), "Hindoo Song," from opera "Sadko" (Rimsky-Korsakoff). Station Orchestra. "From a Russian Village." Senia Chostakoff (tenor), "Evening Bells" (Jaroff), with organ accompaniment. "The Light Shades" (Zuboff), "Slumber Song" (Gretchaninoff). 9.30: Mr. P. H. Nicholls, talk on "Russia To-day." 9.45: Second recital for violin and piano, by Professor Carl Sauer, D. Mus. F.Sc., L.A., London (violinist), and Madame Arline Sauer (solo pianist and accompanist). Professor Carl Sauer (violinist), "Oriental Scene (C. Sauer), "Song of the Gondoliers" (C. Sauer), Madame Arline Sauer (solo pianist), "Mazurka, No. 2" (Oodard), "Humoreske" (Swinstead). Professor O. Sauer (violinist), "Romanze" (Svendsen). Madame Arline Sauer (pianist), "Mazurka" (Kowals-Sauer). 10.15: General news service 5CL's sporting service, by "Silvius." Meteorological information. 10.30: By courtesy of JLO, Melbourne. Modern dance numbers by the famous Radi-o-Aces., 11.10: God Save the King.

**7ZL**

**AFTERNOON SESSION**

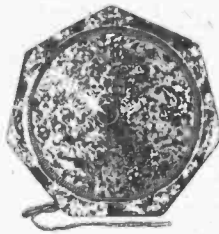
Announcer: Jack Broadbent. 3.0: G.P.O. clock chimes the hour. 3.1: Monsieur Sonora, musical selections. 3.4: Weather information. 3.5: Monsieur Sonora, musical selections. 3.15: An all-star programme by the Discus Ensemble—Jacques Jacob's Ensemble Instrumental, waltz, "España" (Waldteufel), "L'Estudiantina" (Waldteufel); Muriel Brunskill (contralto), "O, Lovely Night" (Teschemcher), "Kathleen Mavourneen" (Grawford); the J. H. Squire Celeste Octet, Piano Concerto "1812" Overture, "Memories of Tschalkowsky," Parts 1 and 2 (aar. Sear); Signor Lenghi-Ceilini (tenor), "Maire My Girl" (Aiken). "I Hear You Calling" (Marshall); Eddie Thomas's Collegians, waltz, "Beautiful Ohio" (Earl); duet, Dame Clara Butt and Kennerly Rumford, "The Keys of Heaven" (Traditional), "Friendship"; Columbia Symphony Orchestra, "March of the Toys" (Earl); Liner String Quartet, "Quarto in E Minor," Parts 1 and 2 (Smetana). 4.30: Close down.

**EARLY EVENING SESSION**

Announcer: Jack Broadbent. 6.15: Monsieur Sonora, musical selections. 6.30: Doreen Eisey (15 years of age), piano recital—"Selected." 6.45: "The Story Lady" will tell a story to the children. 7.0: Answers to letters and birthday greetings by "Uncle David." 7.5: Monsieur Sonora, musical selections. 7.15: News session. 7.30: Lady Nicholls, president of the Child Welfare Association, will speak on "A Start in Life." 7.40: Sir John Evans will speak on "Y.M.C.A. and Citizenship." 7.50: W. E. Fuller will speak on "Literary Lapses and Library Lapses." 8.0: G.P.O. clock chimes the hour. 8.6: A programme of dance music arranged by Claude Pross and his "Gloomchasers"—"You're a Real Sweetheart," "Mary Ann," "Sunset on the St. Lawrence," "Desert Song," "That's My Mammy," "Let a Smile Be Your Umbrella," "You Can't Walk Back," "When You Played the Organ," "Souvenirs," "Tune In on Happiness," "Saxophone Waltz," "Bridget O'Flynn," "Maggie! Yes, Ma!" "Breeze," "Constantinople," "Moonlight on the Ganges." 9.50: "Mercury" special news service; British official wireless news; Tasmanian district weather report. 10.0: G.P.O. clock chimes the hour. 10.2: "God Save the King."

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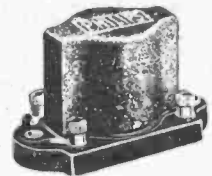
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# Local Programmes, Wednesday, January 23

## 2FC

### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

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

### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.5: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.45: A talk on "Home Cooking and Recipes" by Miss Ruth Furst. 11.0: "Big Ben;" A.P.A. and Reuter's cable services. 11.5: Close down.

### MID-DAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.2: Stock Exchange, first call. 12.3: Official weather forecast, rainfall. 12.5: Musical item. 12.10: Summary of news, "Sydney Morning Herald." 12.15: Rugby wireless news. 12.18: A reading. 12.30: Studio music. 1.0: "Big Ben;" weather intelligence. 1.3: "Evening News" mid-day news service; Producers' Distributing Society's market report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Studio music. 2.0: "Big Ben;" close down.

### AFTERNOON SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: Record recital. 3.0: "Big Ben;" pianoforte reproduction. 3.15: Popular music. 3.30: Ruby Lesley, soprano. 3.37: Winifred M'Bride, contralto. 3.45: A reading. 4.0: "Big Ben;" Carlos Fakola, novelty pianist. 4.7: Ruby Lesley, soprano. 4.14: From the Wentworth-The Wentworth Cafe Dance Orchestra, conducted by Jimmy Elkins. 4.24: From the Studio—Winifred M'Bride, contralto. 4.31: Popular music. 4.45: Third call of the Stock Exchange. 4.47: Popular music. 5.0: "Big Ben;" close down.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 6.45: The "Hello Man" talks to the children, assisted by Uncle Ted and "Sandy." Letters and stories, music and entertainment. A chat about the "Che." Up Society by Uncle Frank. 6.50: Dalgery's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby wireless news. 6.50: Late sporting news. 7.0: "Big Ben;" late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Fairy Feet" (Finck), (b) "Down in the Forest" (Landon Ronald), (c) "Funeral March of a Marionette" (Gounod), (d) "Extase d'Amour" (Rose), (e) Suite, "At Gretna Green" (Fletcher).

### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Programme announcements. 7.45: Pianoforte reproduction. 7.52: Popular music. 8.0: "Big Ben." A classical programme arranged by Mr. Ewart Chapple, Russian composers. 9.0: "Big Ben;" weather. 9.1: C. R. Hall, "Out and About Iraq and Persia: Inasi, the Soobi." 9.21: Second part of classical programme under the direction of Mr. Ewart Chapple. 10.27: To-morrow's programme. 10.30: National Anthem; close down.

## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: G.P.O. clock and chimes Metropolitan weather report. 8.1: State weather report. 8.2: Studio music. 8.15: G.P.O. clock and chimes. News service from the "Daily Telegraph Pictorial." 8.25: Studio music. 8.30: G.P.O. clock and chimes. Studio music. 8.35: Information, mails, shipping, arrivals,

### MR. CHAPPLE'S PROGRAMME.

WE are still in the dark, as we go to press, as to what Mr. Ewart Chapple will arrange for our enlightenment to-night, in the way of a classical programme. The following artists will be heard: Miss Gholadys Evans, soprano; Mr. Robert Gilbert, baritone; Mr. Bryson Taylor, tenor; Mr. Chapple, pianist; and Miss Kathleen Roe, pianist. The programme is to be divided into three parts. The first section will be devoted to the Russian composers; the second, to the old England; and the third, to the modern English composers. The Rimsky-Korsakov Overture over the air for the first time in Australia. This Concerto embodies many Russian folk-songs. Mr. Chapple will play the orchestral parts, and Miss Roe the solo parts.

departures, and sailings. 8.38: News service from the "Daily Telegraph Pictorial." 8.45: G.P.O. clock and chimes. Studio music. 9.0: G.P.O. clock and chimes. Studio music. 9.30: Half-an-hour with silent friends. 10.0: G.P.O. clock and chimes. Close down.

### MID-DAY SESSION.

Announcer: Basil Kirke.

11.0: G.P.O. clock and chimes. 2BL Women's Sports Association, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: 2BL women's session, conducted by Mrs. Cranfield. 12 noon: G.P.O. clock and chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "Sun" mid-day news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital. 2.0: G.P.O. clock and chimes. Close down. Note: Race results will be broadcast by courtesy of the "Sun" Newspapers.

### AFTERNOON SESSION.

Announcer: Basil Kirke.

Accompanist: Kathleen Roe.

3.45: G.P.O. chimes. Popular music. 4.0: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.10: From the studio, Basil Kirke, talk on "The Romance of the New Guinea Gold." 4.25: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.30: George Phillip, tenor. 4.37: "Sun" news service. 4.40: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.50: From the studio, Ida Horwood, mezzo-soprano. 4.57: "Sun" news service. 5.0: Our serial story. 5.17: Ida Horwood, mezzo-soprano. 5.24: Popular music. 5.30: Racing resume. 5.37: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcer: J. Knight Barnett.

5.40: Children's session. Music and entertainment, letters, and stories. 6.30: "Sun" news and late sporting. 6.40: 2BL Dinner

Quartette, (a) "Aida" (Verdi), (b) "Apple Blossoms" (Siede), (c) "Dreams" (Wagner), (d) "Canzonetta" (Herbert), (e) "Djanina Czardis" (Michiels). 7.10: Australian Mercantile, Land, and Finance Co.'s report; weather report and forecast, by courtesy of Government Meteorologist; Producers' Distributing Society's fruit and vegetable market report; grain and fodder report ("Sun"); dairy produce report ("Sun"). 7.25: Mr. Pim and Miss Pam in advertising talks and nonsense. 7.55: Programme and other announcements.

### EVENING SESSION.

8.0: G.P.O. clock and chimes. The Savoyans Dance Band.

8.10: Grace Saville, contralto. 8.17: Robert Turner and Tot Loudon, in a popular sketch, "The Perfect Pair" (Berlinger).

8.29: The Savoyans Dance Band. 8.39: Cyril James, baritone. 8.46: Harrison White and Connie. 8.54: J. Knight Barnett and Dorothy Dewar, entertainers.

9.4: Weather forecast. 9.5: Savoyans Dance Band. 9.15: Cyril James, baritone.

9.22: Robert Turner and Tot Loudon, in a popular sketch, "Only Amateurs" (Montague).

9.34: Savoyans Dance Band. 9.44: Grace Saville, contralto. 9.51: Harrison White and Connie.

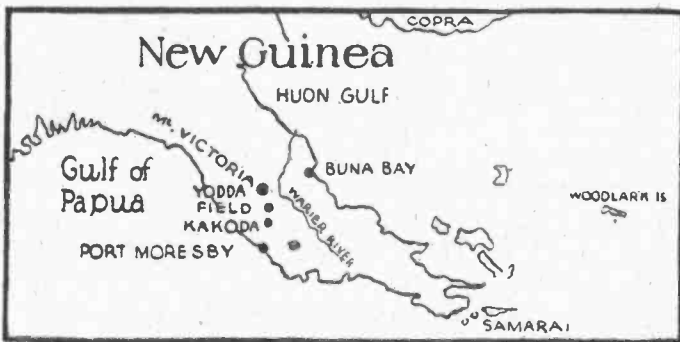
10.1: J. Knight Barnett and Dorothy Dewar.

10.11: The Savoyans Dance Band. 10.27: Late weather report. 10.29: The Savoyans Dance Band. 10.57: To-morrow's programme. 10.59: The Savoyans Dance Band. 11.30: National Anthem. Close down.

## 2GB

10.0 a.m.: Music. 10.10 a.m.: Happiness talk by A. E. Bennett. 10.20 a.m.: Music. 10.30 a.m.: Women's session, by Miss Helen J. Beegling. 11.30 a.m.: Close down. 2.0 p.m.: Music. 2.5 p.m.: Women's Radio Service by Mrs. Dorothy Jordan. 2.30 p.m.: Music. 3.15 p.m.: Close down. 5.30 p.m.: Children's session by Uncle George. 7.0 p.m.: Stock and market reports by New Zealand Loan and Mercantile Agency, Ltd. 7.15 p.m.: Music. 7.30 p.m.: Feature story. 8.0 p.m.: Violin solos by Mr. Edmund Collins. 8.10 p.m.: Songs by Mr. Robert Scott. 8.20 p.m.: A humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.25 p.m.: Mayo Hunter and Gladys, instrumentalists. 8.35 p.m.: Songs by Miss Nell Hayes. 8.45 p.m.: Pianoforte solos by Miss Ruth Pearce Jones. 8.55 p.m.: A humorous interlude. 9.0 p.m.: Weather report. 9.3 p.m.: Address. 9.15 p.m.: Songs by Mr. Robert Scott. 9.25 p.m.: Violin solos by Mr. Edmund Collins. 9.35 p.m.: Songs by Miss Nell Hayes. 9.45 p.m.: A humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.50 p.m.: Mayo Hunter and Gladys. 10.0 p.m.: Orchestral music. 10.30 p.m.: Close down.

Mr. Basil Kirke will refer to this map during his talk from 2BL to-night.





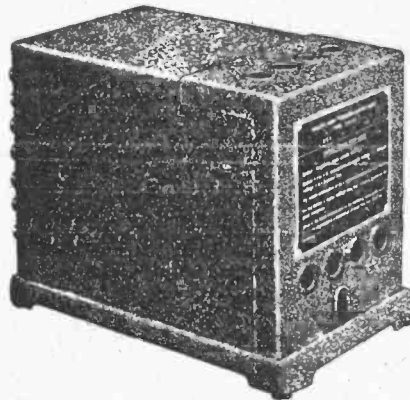
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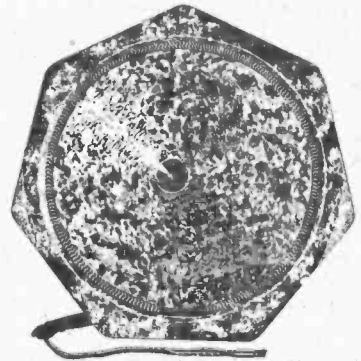
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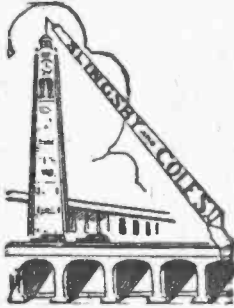
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### 3LO

#### EARLY MORNING SESSION

7.15: Morning melodies. 7.20: Morning exercises & music. 7.30: Stock reports, market reports, general news, shipping and sporting information. 8.0: Melbourne Observatory time signal. 8.1: Morning melodies. 8.15: Close down.

#### MORNING SESSION

Sporting—10.50: Eric Welch will speak on to-day's races at Ascot Park. 11.0: 3LO's different dainties for the daily dinner. To-day Radio Recepter, Lobster mayonnaise. 11.5: Miss I. D. Beavan: "Home-made Confectionery." 12.20: Musical interlude. 11.25: Mrs. M. Callaway Mahood: "Color in Decoration." 11.40: Sonora recital.

#### MID-DAY NEWS SESSION

12.0: Melbourne Observatory time signal. Express train information. 12.1: British official wireless news from Rugby. Reuter's and the Australian Press Association cables. "Argus" news service. 12.15: Official report of the Newmarket Stock Sales, by the Associated Stock and Station Agents, Bourke Street, Melbourne. 12.20: The Radi-o-Aces: "Googly Goo" (Davis). "Guess Who's in Town" (Razali). "That Stolen Melody" (Fisher). 12.25: Jean Sinclair, soprano: "An Old Garden" (Temple). "You Along o' Me" (Sanderson). 12.36: Stock Exchange information. 12.40: The Radi-o-Aces: "Lenora" (Gilbert). "Chloe" (Kahn). "That's What You Mean to Me" (Davis). 12.45: Tom Temple, tenor: "Blow, Blow, Thou Winter Wind" (Quilter). "At Dawning" (Cadman). 12.56: The Radi-o-Aces: "Lazy Feet" (piano solo (Masman)). "Just Like a Melody Out of the Sky" (Donaldson). "Beloved" (Kahn). 1.5: Meteorological information: weather forecast for Victoria, South Australia, New South Wales, and Tasmania: ocean forecasts: river reports: rainfall. 1.21: Jean Sinclair, soprano: "Life There, My Love" (MacGunn). "The Leaves and the Wind" (Leon). 1.19: The Radi-o-Aces: "Because My Baby Don't Mean Maybe Now" (Donaldson). "I Love to Dunk a Hunk of Sponge-cake" (Castill). "Rain" (Ruby). 1.24: Tom Temple, tenor: "Groom's Wedding Song" (selected). 1.30: Speeches from the Rotary Club Luncheon. Transmission from the Freemason's Ball, Collins Street, Melbourne. 2.0: Close down.

#### AFTERNOON SESSION

Announcer: Frank Hatherley. Accompanist: Agnes Fortune. 2.13 p.m.: Description of Hurdle Race, two miles 48 yds., Ascot Park Races, by Eric Welch. 2.20: The Station Orchestra, overture, "Joy and Sorrow" (Snock). 2.30: Bernard Manning, bass-baritone (by permission of J. C. Williamson, Ltd.), "None Will Know" (Ronald). "The Reason" (Ronald). 2.37: The Station Orchestra, "Serenade Norwegian" (Sandre). 2.43: Description of Maiden Plate, six furlongs, Ascot Park Races. 2.48: Molly Mackay, soprano, "By the Waters of Minnetonka" (Lieurance). "A Little Con's Prayer" (Hope). 2.57: Joseph Barille, Tasman Tiernan, and Fredk. Hall, trio, flute, cello, and piano. "Nocturne" (Fleishmann). 3.3: The Station Orchestra, "Scheherazada" (Korsakow). "Chansonette" (Baron). 3.13: Description of Ascot Park Plate, six furlongs, Ascot Park Races. 3.20: Tom Masters, tenor. "Has Sorrow Thy Young Days" (Shirley Hughes). "A Sprig of Boronia" (Hull). 3.27: Dorothy Roxburgh, viola, selected. 3.32: Beryl Holt, contralto, "Old Man Might Have Been" (Besley). "An Epitaph" (Besley). 3.38: The Station Orchestra, suite, "The Purple Vine" (Anicet). 3.43: Description of Ascot Park Handicap, one mile, Ascot Park Races. 3.50: Bernard Manning, bass-baritone, "Kashmiri Song" (Woodford-Pingden). "King Charles" (White). 3.57: The Station Orchestra, selection, "March of the Bells" (Bello). 4.8: Molly Mackay, soprano, "When Dull Care" (Leveridge). "A Nightingale Was Singing" (Simpson). 4.13: Description of Ascot Park Purse, seven furlongs, Ascot Park Races. 4.20: Tom Master, tenor. "My Dream" (Hull). "Ah! Tho' the Silver Moon Were Mine" (Lohr). 4.27: The Station Orchestra, suite, "Gabrielle" (Ross). 4.36: Beryl Holt, contralto, "Soul o' Mine" (Barns). "The Fairy Land" (Phillips). 4.45: Description of Welter Handicap, 1 1/4 mile, Ascot Park Races. 4.50: The Station Orchestra, "Two French Dances" (Bembel). "Air de Ballet" (Herbert). 5.0: "Herald" news session: Stock Exchange information. During the afternoon results of the races will be given as they come in hand. 5.10: Close down.

#### EVENING SESSION

Announcer: Maurice Dudlev. 6.0 p.m.: Answers to letters and birthday greetings by "Mary Mary." 6.25: Musical Interlude. "Mary" will tell you about Tattercoats—a fairy tale. "Needles and Pins," a story for little people who are lazy.

#### NIGHT SESSION

Announcer: Maurice Dudlev. Accompanist: Agnes Fortune. 7.5 p.m.: Stock Exchange information. 7.15: Market reports. 7.30: News session. 7.43: Birthday greetings. 7.45: "Out of the Past." 7.46: Under the auspices of the Department of Agriculture, Mr. R. Croxson, export superintendent, will speak on "Marketing Methods." 8.0: "A Maker of History." 8.1: Mr. R. H. Campbell will speak on "Crick." 8.15: One-act play, "Augustus in Search of a Father," by Harold Chayin, produced by Terence Crisp. 8.45: Cerv. Donald Macleod will continue his series of "Adventure" talks. 9.0: The Station Orchestra, overture, "Men of Prometheus" (Beethoven). 9.10: Bernard Manning, bass-baritone, "Droop Not, Young Love" (Handel). "Am a Rommer" (Mendelssohn). 9.17: Tasma Tiernan, cello. "Nina" (Pardoleso). 9.24: Molly Mackay, soprano, "Pack Clouds Away" (Handel). "Love Me or Not" (Arne). "Love in Thy Youth" (Thomas). 9.31: The Station Orchestra, ballet, "La Source" (Debussy). 9.41: Cantain Guy Moore, tenor. "E'en as a Lovely Flower" (Rivide). "The Puchista Tree" (Quilter). 9.48: The Station Trio, "Sunday Morning at the Ford" (Vandell). 9.59: Bernard Manning, bass-baritone, "The Erl King" (Schubert). 10.8:

The Station Orchestra, "In Fairyland" (Hosmer). "Melodie" (Rachinsky). "The Fish and Vegetables, etc." M. 10.25: Guy Moore, soprano and tenor, duet, "O Night of Hymen," from "Romeo and Juliet" (Gounod). 10.25: The Station Orchestra, "Le Coucou" (Arensky). 10.32: "Argus" news service, British Official Wireless news from Rugby; meteorological information. 10.42: Archie Clarke, entertainer, "Ten Minutes' Frivolity." 10.53: The Radi-o-Aces, "Googly Goo" (Davis). "Guess Who's in Town" (Razali). "That Stolen Melody" (Fisher). "Lenora" (Gilbert). "Chloe" (Kahn). "That's What You Mean to Me" (Davis). "Lazy Feet," piano solo (Masman). "Just Like a Melody Out of the Sky" (Donaldson). "Beloved" (Kahn). "Because My Baby Don't Mean Maybe Now" (Donaldson). "I Love to Dunk a Hunk of Sponge Cake" (Castill). "Rain" (Ruby). "Ramona" (Wayne). "Clarinet Marmalade" (Fergus). "Nebraska" (Revel). "Forever More" (Burnett). 11.40: "God Save the King."

### 3AR

Announcer: O. J. O'Connor. 10.0: G.P.O. clock says "Ten." 10.1: "Age" market reports, farm and station produce, fruit, fish, vegetables, etc. M. 10.25: "Age" shipping reports, ocean forecast. 10.30: Mail notices; express train information. 10.35: "Age" news service, exclusive to 3AR. 10.59: Weather forecast. 11.8: A grandiose recital of the works of the masters, ancient and modern. 12.30: Close down.

#### EVENING SESSION

Announcer: John Stuart. 6.0: Sweet solace on the Seraphina.

#### NIGHT SESSION

Announcer: John Stuart. Accompanist: Reg. Brown. 8.0: P. W. Pearce, physical culture expert: "New Year Resolutions." 8.15: Under the auspices of the Boy Scouts' Association, W. D. Kennedy will speak. Sheltered Vale" (D'Almeida). 9.26: Coburg City Band: March, "St. Kilda" (Trussell). "Idyll." "The Cuckoo" (Lithgow). "Life of a Blacksmith" (Kot-taun). 9.45: Jean Sinclair, soprano: "Walkin' in de Garden" (Andrews). "Queen Mary's Song" (Elgar). 9.52: Coburg City Band: Waltz, "Waltz Dream" (Strauss). 9.2: Sundowners Quartette: "Honolulu Moon." "Hello, Swanee." 9.9: Coburg City Band: "Ballet Music from Copland" (Bellbes). 9.19: Robert Gillard, bass: "Nysell When Young" (Lehman). "In Sheltering Vale" (D'Almeida). 9.26: Coburg City Band: "Selected." 9.31: Sundowners Quartette: "Baby O'Toole" (Seamrill). "Request Item." 9.38: Coburg City Band: Selections of Penza. 9.48: Jean Sinclair, soprano: "The Sands o' Des" (Fred. Clay). "The Ballin's Daughter" (Old English). 9.55: Announcements. 10.0: Herbert Sanderson and Robert Gillard, Duet, "Soldiers and Comrades." Herbert Sanderson, baritone, "Song of the Waggoner" (Smith). 10.7: Coburg City Band: Petit Selection from "Norma." March, "Clear the Road" (Hume). 10.20: News session: "Age" news service, exclusive to 3AR; announcements. God Save the King.

### 4QG

#### EARLY MORNING SESSION.

7.34 a.m.: Time signals. 7.45: News service. 8.0: Some electric records. 8.15: News service. 8.30: Close down.

#### MORNING SESSION.

11.0: Music. 11.5: Social news. 11.15: A talk on "Artistic Uses of Sealing Wax and Crepe Paper," by "Denise." 11.30: Music. 11.35: More social news. 11.45: Music. 12.0 (noon): Close down.

#### MID-DAY

1 p.m.: Market reports and weather information. 1.15: The Postal Institute Orchestra. 2.0: Close down.

#### AFTERNOON SESSION.

3.0: A programme of electrically reproduced records. 3.30: Mail train running times. 3.31: From St. John's Cathedral, a recital by Mr. George Sampson, F.R.C.O. (City Organist). 4.0: Afternoon news. 4.30: Close down.

#### EARLY EVENING SESSION.

6.0: Mail train running times; mail information; shipping news. 6.5: Some electrically reproduced records. 6.25: Commercial arrangements. 6.30: Bed-time stories conducted by "Little Miss Brisbane." 7.0: News in brief. 7.5: Stock Exchange news. 7.6: Metal quotations. 7.7: Market reports. 7.25: Fenwick's stock report. 7.30: Weather information. 7.40: Announcements. 7.45: Standard time signals. 7.45: Lecture arranged by the Queensland Agricultural High School and College.

#### NIGHT SESSION

8.0: Alf Featherstone and his Orchestra, fox trot, "When You're With Someone Else" (Baer), fox trot, "Gee I'm Glad I'm Home" (Rose). 8.10: Harry Collins and the Orchestra, ten minutes' lighter melodies. 8.20: Alf Featherstone and his Orchestra, fox trot, "Twelve O'Clock at Night" (Rose) fox trot "Broken Moon" (Roberts). 8.40: Alf Featherstone and his Orchestra, jazz waltz, "Love Days" (Hany). 8.45: Mabel Malouf (soprano), "Wake Up" (Phillips). "The Pipes of Pan" (Mackintosh). 8.55: Metropolitan weather forecast; movements of light-orchestra steamers. 9.0: Alf Featherstone and his Orchestra, fox trot, "There's No One Can Love Me Like You" (Conroy), fox trot, "Eyes Home is Aching for You" (Donaldson). 9.40: Feet-tod (locutionist), "Alphonse" (Hennequin). "A Farewell" (Kingsley). 9.18: Alf Featherstone and his Orchestra, fox trot, "Fleur d'Amour" (Padilla), fox trot "Someone Else Took My Place in Your Heart" (Lewis). 9.23: Mrs. Thornton (soprano), "La Ber-nata" (Braga), "The Swallows" (Cowan). 9.35: Alf Featherstone and his Orchestra, fox trot, "I'm Riddin' to Glory" (Hany), fox trot, "Hull Hoast-rop" (Dixon). 9.45: M. V. Spanjer (contralto), "Summer Rain" (Willeby), "Break, Break, Break" (Carey). 10.0: The "Daily Mail" news: "The Courier" news; weather news. 10.15: Alf Featherstone and his Orchestra, three-quarters of an hour's dance music. 11: Close down.

**5CL**

**MID-DAY SESSION.**

12.0: G.P.O. chimes. 12.1: Parlophone recordings; Sonora, 15 minutes with Sam Lanin's Dance Band. 12.15: "The Advertiser" general news service. 12.25: British official wireless news. 12.40: Sonora; Frank Westfield's Orchestra, "Lilac Time" (Schubert). 12.50: S.A. railways information. 12.51: S. G. Ward's Stock Exchange information. 12.57: Meteorological information. 1.0: G.P.O. chimes. 1.1: Sonora; Parlophone recordings; Kalam's Quartette, "On the Beach at Waikiki"; "Loi Hula"; 1.9: Davis and Queenie Kallie—Hawaiian Love Song; "O mi Pa-ma." 1.15: Kalam's Quartette—"Na Pua Eia," "Wai o Nimehaha." Grand Opera experts. 1.21: Nino Ederle, lyric tenor—"Spirito Gentil," from "La Favogita" (Donizetti); "Echo Ridante" from "Barber of Seville" (Rossini). 1.30: Opera Comique Orchestra, Paris, "Barber of Seville" overture (Rossini). 1.31: Margherita Salvi, soprano—"Una voce poco fa," "Barber of Seville" (Rossini); "Io Son Docile," "Barber of Seville" (Rossini). 1.47: Victor Staub, pianist—"Valse in G Flat, No. 1" (Chopin). "Valse Brillante in F, op. 34, No. 3" (Chopin). 1.53: Russian Ballalalka Orchestra—"Song without Words" (Tschalkowsky). 1.57: Meteorological information; Snowtown and Aspendale Park race results. 2.0: G.P.O. chimes and close down.

**AFTERNOON SESSION.**

Announcer: Athol Lykke. 3.0: G.P.O. chimes. 3.1: Aspendale Park and Snowtown race results. 3.2: Sonora recital (H.M.V. recording); Orchestra of State Opera House, Berlin—"Symphonie in B Minor," unfinished (Schubert); first movement, Allegro Moderato; second movement, Andante con moto. 3.32: Aspendale Park and Snowtown race results. 3.33: Senia Chostakoff, Russian tenor, selections from his repertoire. 3.40: Organ recital by Herbert Edwards from Archer Street Methodist Church—"Fourth Organ Concerto" (Handel), "Triumphal March" (Lemmens), "Fanfare" (Ascher), "Romance" (Schutt). 4.0: G.P.O. chimes. 4.1: Aspendale Park and Snowtown race results. 4.2: Senia Chostakoff, Russian tenor, selections from his repertoire. 4.8: Organ recital by Herbert Edwards from Archer Street Methodist Church—"Allegretto in B Minor" (Gulmanti), "Minuet" (Tours), suite "Chique" (Bolmann). 4.30: Sonora; orchestral and vocal interlude (Parlophone recordings. Dajos Bela Orchestra, "Pique Dame," fantasia (Tschalkowsky); "The Swallow," waltz (Strauss). Grand Irmier Choir, with Orchestra, "Ave Maria," hymn to the Virgin (Schubert). Maargherita Salvi, soprano—"Una voce poco fa," "Barber of Seville" (Rossini); "Io Son Docile," "Barber of Seville" (Rossini). 4.55: Aspendale Park and Snowtown race results. 4.57: S. G. Ward and Co.'s Stock Exchange information. 5.0: G.P.O. chimes and close down.

**EVENING SESSION.**

Announcer: J. L. Norris. 6.0: G.P.O. chimes. 6.1: Children's Happy Moments—Birthday greetings, correspondence, songs, and stories by "Miss Wirelesds" (Parlophone recordings). 7.0: G.P.O. chimes. 7.1: S. C. Ward and Co.'s Stock Exchange information. 7.5: General market reports. 7.10: Rev. E. S. Kier, talk on "Michael, the Lion Heart." Boy Scouts Crusader. 7.25: Boy Scouts Corps, general information and moral talks. 7.40: 5CL Bluebird Girls' Club, 20 minutes for the girls, conducted by "The Bird Lady."

**NIGHT SESSION.**

8.0: G.P.O. chimes. 8.1: A pianoforte recital by Irene Kemp, L.A.B. (brilliant South Australian pianist), featuring "Impromptu in A Flat" (Schubert), "Little White Donkey" (Ibert), "Filtrations in a Chinese Garden" (Chastain), "Hark, Hark the Lark" (Schubert). 9.15: From J. C. Williamson's Garden Theatre—A night of novelty by Humphrey Bishop and his musical comedy company. 9.30: Vocal recital by Senia Chostakoff, Russian tenor—"For You Alone," "A Dream" (Hart), "A Romance." (continued) by the Humphrey Bishop Musical Comedy Company. 10.30: "The Advertiser" news service; meteorological information. 10.41: By courtesy of S.L.O., Melbourne, modern dance numbers by the famous Radi-o-Aces. 11.10: God save the King.

**7ZL**

**AFTERNOON SESSION.**

Announcer: Jack Broadbent. 3.0 p.m.: G.P.O. clock chimes the hour. 3.1 p.m.: His Master's Voice in Moments Merry and Musical. 3.4 p.m.: Weather information. 3.5 p.m.: His Master's Voice in Moments Merry and Musical. 3.15 p.m.: Running description of Aspendale Plate, run at Aspendale racecourse, Aspendale, Victoria. 3.20 p.m.: His Master's Voice in Moments Merry and Musical. 3.50 p.m.: Running description of Aspendale Park Handicap, run at Aspendale Racecourse, Aspendale, Victoria. 3.50 p.m.: His Master's Voice in Moments Merry and Musical. 4.15 p.m.: Running description of Aspendale Purse, run at Aspendale racecourse, Aspendale, Victoria. 4.20 p.m.: His Master's Voice in Moments Merry and Musical. 4.45 p.m.: Running description of Welter Handicap, run at Aspendale racecourse, Aspendale, Victoria. 4.50 p.m.: All sporting results to hand. 5.0 p.m.: Close down.

**EARLY EVENING SESSION.**

Announcer: J. M. Counsel. 6.15 p.m.: His Master's Voice in Moments Merry and Musical. 6.30 p.m.: Bertha Southey Brammall will tell the children a Tasmanian fairy tale, "Egbert the Egg Urchin" (Part 3). 6.40 p.m.: Request numbers for the wee folk. 7.0 p.m.: Answers to letters and birthday greetings, by Bertha Southey Brammall. 7.5 p.m.: His Master's Voice in Moments Merry and Musical. 7.15 p.m.: News session.

**EVENING SESSION.**

7.30 p.m.: Geo. Nation will speak on "Seasonable talk on 'The Magnificent Panorama Surrounding Operations.'" 7.45 p.m.: J. M. Counsel will give a 7ZL Hobart New Studio. 8.0 p.m.: G.P.O. clock chimes the hour. 8.6 p.m.: Recital of instrumental and vocal items by leading international artists, specially arranged by Paton's Music Warehouse. 9.45 p.m.: British official wireless news; "Mercury" news service; ships within wireless range; Tasmanian district weather report. 10.0 p.m.: G.P.O. clock chimes

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40	25/	27/6	27/6	—
50	29/3	—	—	—
60	32/6	—	33/6	36/
80	—	—	40/	—

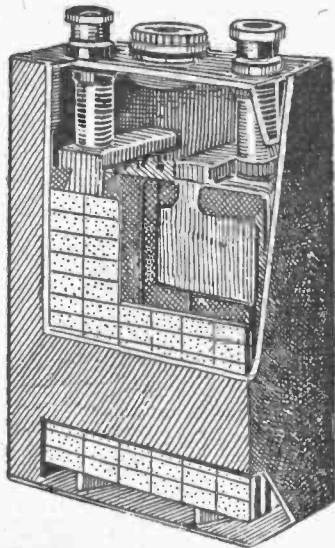
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# Local Programmes, Thursday, January 24

## 2FC

### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

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

### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: Last-minute sporting information by the 2FC Racing Commissioner. 10.40: Studio music. 10.45: A talk to country women by "Pandora." 11.0: "Big Ben," A.P.A. and Reuters cable services. 11.5: Close down.

### MID-DAY SESSION.

Announcer: A. S. Cochrane.

11.59: "Big Ben" and announcements. 12.0: From the Sydney Cricket Ground, description of play in the Sheffield Shield match, Victoria v. New South Wales. 1.30: From the Studio—Stock Exchange, second call. 1.35: Weather intelligence. 1.38: "Evening News" mid-day news service; Producers' Distributing Society's report. 1.47: Rugby wireless news. 1.50: Last-minute sporting information by the 2FC Racing Commissioner. 2.0: "Big Ben," close down.

### AFTERNOON SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: Record recital. 3.0: "Big Ben." From Pitt Street Congregational Church—Organ recital arranged by Miss Enid Elliot: (a) "Marche Nuptials" (Gilmont), (b) "Priere et Berceuse" (Gilmont), (c) "March Militaire" (Gounod). 3.20: From the Studio—Dawn Harding, mezzo: (a) "O What Comes over the Sea" (Coleridge Taylor), (b) "This is the Island" (Coleridge Taylor). 3.27: A reading. 3.40: From Pitt Street Congregational Church—Organ recital arranged by Miss Enid Elliot: (a) "Concerto in D Minor" (Stanley), (b) "Evening Idyll" (Sellers), (c) "Spring Song" (Hollins). 4.0: From the Studio—"Big Ben," Dawn Harding, mezzo: (a) "Golden Days" (Sullivan), (b) "The Blue Sun Bonnet." 4.1: From Pitt Street Congregational Church—Organ recital arranged by Miss Enid Elliot: (a) "Le Reve Angelique" (Rubinstein), (b) "On Wings of Song" (Mendelssohn), (c) "Festival March" (Lemare). 4.20: From the Sydney Cricket Ground, description of the inter-State cricket match, New South Wales v. Victoria. 5.40: Close down.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.41: The chimes of 2FC. 5.45: The "Hello Man" conducts the children's session—letters and stories, music, and entertainment. 6.30: Dalgety's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange report. 6.45: Weather and shipping news. 6.48: Rugby wireless news. 6.50: Late sporting news. 7.0: "Big Ben," late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Marche Tzigane" (Lacombe), (b) "L'Enfant Prodigue" (Wormser), (c) "Lullaby" (Smetana), (d) "Sextette" (Smetana), (e) "Old Man Sunshine" (Warren).

### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Programme announcements. 7.45: Pianoforte reproduction. 7.52: Cricket results, New South Wales v. Victoria, for the benefit of country listeners. 7.54: Popular music. 8.0: "Big Ben." From the Capitol Theatre—The Capitol Unit Entertainment. 8.20: From the Studio—Eileen Boyd, contralto. 8.27: "To-night's Competition." Dramatic guessing competition, entitled, "Which Was It?" A three-piece mystery, presented by Scott Alexander.

8.42: Isabel Thisleton, soprano—

(a) "The Smile of Spring" (Fletcher).

(b) "Robin Adair."

8.49: Frances Hobin, pianist—

(a) "Etude in E" (Paganini-Schumann).

(b) "On Wings of Song" (Mendelssohn-Liszt).

(c) "Mandolinata" (Paladiahle-Saint-Saens).

9.1: Weather report.

9.2: From the Capitol—The Capitol Unit Entertainment.

9.27: From the Studio—Isabel Thisleton, soprano—

(a) "At my Window" (Parker).

(b) "Sweetheart Mine" (Boanas).

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

9.44: From the Studio—Eileen Boyd, contralto.

9.51: Frances Hobin, pianist—

(a) "Barcarolle" (Opfenbach-Moszkowski).

(b) "Dance of the Elves" (Jensen).

(c) "Hark, Hark, the Lark!" (Schubert-Liszt).

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

10.13: From the Studio—Rae Foster in popular melodies.

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

10.30: From the Studio—Late weather report.

10.31: Rae Foster in popular melodies.

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

10.57: From the Studio, to-morrow's programme.

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

11.30: National Anthem; close down.

## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: G.P.O. clock and chimes. Metropolitan weather report. 8.1: State weather report. 8.2: Studio music. 8.15: G.P.O. chimes. News from the "Daily Telegraph Pictorial." 8.25: Studio music. 8.30: G.P.O. chimes. Studio music. 8.35: Information, mails, shipping, arrivals, departures, and sailings. 8.38: News from the "Daily Telegraph Pictorial." 8.45: G.P.O. clock and chimes. Studio music. 9.30: Half-an-hour with silent friends. 10.0: G.P.O. clock and chimes. Close down.

### MID-DAY SESSION.

Announcer: Basil Kirke.

11.0: G.P.O. clock and chimes. 2BL Women's Sports Association session, conducted by Miss G. Varley. 11.30: Advertising hints. 11.40: Women's session, conducted

by Mrs. Cranfield. 12 noon: G.P.O. clock and chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.45: Cricket scores, Sheffield Shield match, Victoria v. New South Wales, played at the Sydney Cricket Ground. 12.48: "Sun" mid-day news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital. 1.57: Cricket scores. 2.0: G.P.O. clock and chimes. Close down.

### AFTERNOON SESSION.

Announcer: Basil Kirke.

Accompanist: Kathleen Roe.

2.15: From the Sydney Cricket Ground, description of the inter-State cricket match, New South Wales v. Victoria. 4.0: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.10: From the studio, Captain Fred Aarons, "The Place of Sport in National Life." 4.25: Florence Croft, soprano. 4.32: James Walker, pianist, "Waltz in B Minor" (Chopin). 4.40: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.50: From the studio, Florence Croft, soprano. 4.57: "Sun" news service. 5.0: Our serial story. 5.10: James Walker, pianist, (a) "Arabesque in E Major" (Debussy), (b) "Arabesque in G Major" (Debussy). 5.17: Popular music. 5.37: Features of the evening's programme. 5.40: From the Sydney Cricket Ground, description of the inter-State cricket match, New South Wales v. Victoria, until stumps drawn.

### EARLY EVENING SESSION.

Announcers: Basil Kirke.

J. Knight Barnett.

6.0: Children's session. Music and entertainment, letters and stories. 6.30: "Sun" news and late sporting. 6.40: 2BL Dinner Quartette, (a) "Moraima" (Lapinosa), (b) "Gaelic Love Song" (Foulds), (c) "Looking Backward" (Finck), (d) "The King's Daughter" (Fetras), (e) "Mary Brown" (Gilbert). 7.10: Cricket scores. 7.15: Australian Mercantile, Land and Finance Co.'s report; weather report and forecast by courtesy of Government Meteorologist; Producers' Distributing Society's fruit and vegetable market report; grain and fodder report. "Sun"; dairy produce report ("Sun"); weekly traffic bulletin. 7.25: Mr. Pim and Miss Fair in advertising talks and nonsense. 7.55: Programme and other announcements.

### EVENING SESSION.

Announcer: J. Knight Barnett.

Accompanist: G. Vern Barnett.

8.0: G.P.O. clock and chimes. From the Nepean Theatre, a concert programme directed by Charles Lawrence. Assisted by: Foster and Finlay, Rex Harrison, and local artists. 10.30: National Anthem. Close down.

## 2GB

10.0 a.m.: Music. 10.10 a.m.: Happiness Talk by A. E. Bennett. 10.20 a.m.: Music. 10.30 a.m.: Women's session by Miss Helen J. Beegling. 11.30 a.m.: Close down. 2.0 p.m.: Music. 2.5 p.m.: Women's Radio Service by Mrs. Dorothy Jordan. 3.0 p.m.: Address by G. H. Chappel. 3.15 p.m.: Close down. 5.30 p.m.: Children's session by Uncle George. 7.0 p.m.: Stock and market reports by New Zealand Loan and Mercantile Agency Ltd. 7.15 p.m.: Music. 7.30 p.m.: Feature story. 8.0 p.m.: Sid and Molly Owen and Joyce Slatyer, instrumentalists. 8.10 p.m.: Songs by Mr. Cyril Huggett. 8.20 p.m.: A humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.25 p.m.: Violin solos by Mr. Lionel Hargreaves. 8.35 p.m.: Songs by Madame Bennett North. 8.45 p.m.: Pianoforte solos by Mr. John Benson. 8.55 p.m.: A humorous interlude. 9.0 p.m.: Weather report. 9.3 p.m.: Address. 9.15 p.m.: Sid and Molly Owen and Joyce Slatyer. 9.25 p.m.: Songs by Mr. Cyril Huggett. 9.35 p.m.: A humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.40 p.m.: Violin solos by Mr. Lionel Hargreaves. 9.50 p.m.: Songs by Madame Bennett North. 10.0 p.m.: Pianoforte solos by Mr. John Benson. 10.10 p.m.: Orchestral items. 10.30 p.m.: Close down.



Miss Eileen Boyd, contralto, who will be heard from 2FC tonight.

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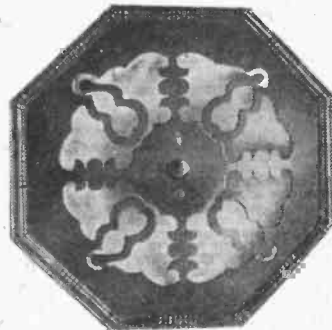
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The WIRELESS WEEKLY

RADIO INFORMATION

Under the direction of

Ray Allsop

and

Don B. Knock

(Associate Technical Editors)

Service

Correspondence Answered

only through

these

Columns

(See Coupon Below)

D.S. (Randwick).—(1) "Please find copy of my baseboard wiring. What type of receiver is this?"

Answer: An Old Reliable, with two stages of audio frequency."

(2) "Would it be advisable to use a power valve in the detector stage?"

Answer: Certainly not. A power valve is for general use in the audio stages only.

(3) "Would I increase the range of my receiver by using a power valve?"

Answer: No; there would probably be a slight increase in volume.

(4) "How much 'C' voltage shall I use with my valves and 'B' voltage?"

Answer: 4½ volts.

A.D.M. (No address).—"Does the temperature of an accumulator have any noticeable effect on the gravity reading?"

Answer: No.

(2) "What should be the correct gravity reading after the electrolyte has been mixed two hours?"

Answer: Between 1250 and 1300.

(3) "I do not procure the 'Wireless Weekly'."

Answer: Neither do we answer by post.

E.E.T. (Penrith).—"I have a six-valve R.C.A. receiver, which was installed last July. I have had good results from all stations, including long-distance stations, until recently. For the past two or three weeks I have been unable to tune in any long-distance station."

Answer: First test the batteries—particularly the 'C' battery. If all batteries are in order, the trouble is probably due to valves, which have lost their emission. The obvious cure is to replace the valves. Have them tested by a dealer. If the valves are O.K., check the transformer windings, grid leak, and grid condenser.

A.B.M. (Mackay).—"Being very interested in the Super for short-wave work, and seeing two articles in your journals on this subject, by Mr. Allsop, I would like to comment on the method, and advance a few figures which, I think, will be of interest to Mr. Allsop, if you would pass this along to the gentleman mentioned. It is not my wish to be contrary, as I recognise in Mr. Allsop a man of much knowledge. Some time ago I fitted a short-wave adapter with a tuned radio-frequency set of six valves, one dial control, designed for broadcast work. Using the R.F. of this set as the intermediate frequency, I figured that by having a variable tuner on the intermediate stages, that simplicity of construction would be the result. This I found to be the case. I also found that there was no need for a vernier on the oscillator, as anywhere within a degree or two was near enough. The dial on the broadcast receiver brings the short-wave stations in as easy as a broadcast station. This outfit was a long way from being efficient, as the following figures will show, but if the system were adopted using a variable tuned filter on a super-transformer kit, better results would be obtained. To produce a beat frequency of 500 metres, i.e., 609 K.C., working on a 30-metre station, my oscillator was tuned to approximately 28.3 metres, which is 1.7 metres off—an working on 60 K.C. intermediate, it would be necessary to drop 179 metres. On a 30-metre station, with a 60 K.C. intermediate, the oscillator would be adjusted to approximately 29.821 metres below 30.179 above a .001 metre variation on the oscillator will give a beat frequency of approximately 30 metres."

Answer: That's all very well, but how many short-wave fans will care to pull out pencil and paper every time they desire to log a short-wave station? Your idea has been tried years ago, and the very failures you have experienced are the cause of short-wave receivers being turned out without R.F. stages, as otherwise they are too unstable for the average, and even sometimes, for the advanced ham. It is only recently that it has been possible to use a short-wave receiver with R.F., and that is through the agency of the Screen Grid valve. Now that this valve has been introduced, instability in short-wave receivers is set at nil. However, your calculations do you credit, though there ARE some parts, such as "would be adjusted to approximately 29.821 metres below 30.179 above a .001 metre variation on the oscillator will give a beat frequency, etc.," which are not quite clear.

(2) "I am of the opinion that a small variable condenser for the purpose of tuning the R.F. filter would be equivalent to a vernier of a million to one on your short wave adaptor. It would have the further advantage of allowing the oscillating

detector to be isolated, thus avoiding the objectionable hand-capacity effect."

Answer: The filter and intermediates should be shunted for correct frequency. A properly constructed super should not suffer from hand-capacity.

J.H. (Byron Bay).—"I have a five-valve receiver, purchased from Murdoch's, and am at present using dry batteries. I now desire to replace with a 'B' eliminator. Which type out of the following list would be most suitable?"

Answer: The Philips' No. 372.

"Marco Four" (Milton's Point).—"I am very glad to note in current issue of 'W.W.' that the Marco Four is going to be adapted to the screen-grid valve. I hope it will appear shortly. I had a painful experience with the Marco Special, using a Pentatron valve. I still have the valve—anybody can have it. As a four-valve circuit the Marco Four has no equal—not even the Browning Drake."

Answer: The circuit of the Marco Four was published in Query Columns" on 4th January, 1928. The Marco receiver will re-appear within a few weeks, though this may not be the S.G. adaptation.

A.A. (Newcastle).—"My object in writing to you is to obtain some information regarding a failure I am having with my set which is an R.C.A. 6-valve, 17A cannot pick up Melbourne, though I can hear all the other stations. I am very anxious to hear 3LO. I should be grateful if you could give an idea why I cannot hear 3LO."

Answer: Probably your location. It is an unexplained fact that Newcastle is not the best of districts for radio reception. There may also be a local screen in between your receiver and the direct line to Melbourne.

R.W.F. (Campsie).—"I am a constant reader of your valuable journal, 'Wireless Weekly,' and thoroughly appreciate the information and advice contained in your service column. I am constructing the 1928 Browning Drake, as described in 'Radio,' March, 1928, and have it completed, all but the coils. I notice that the article advises a ready-made kit, but, being of an experimental nature (that's the part that kicks—Ed.), and having made several kits of coils, I do not wish to purchase the B.D. coils. I will be very pleased if you will inform me of the number of turns on the coils marked in the diagram enclosed. I understand that one of the coils is fixed, being beneath one coil, whilst a revolving coil is at the other end. Will you kindly make the positions of these coils clear to me?"

Answer: The coil you have marked L1, should be wound with 90 turns of 30 D.S.C. on a zin. former. L2 also has 90 turns of the same wire; L3 is the fixed coil to which you refer, and has 12 turns of the same wire upon it. This coil is fitted inside the filament end of L2; L4 has 35 turns on it, and this coil is fitted at the grid end of L2; L3 is the rotor.

(2) "Usually A negative and B positive are connected together. In the diagram you show A negative and B negative connected—is this a mistake?"

Answer: No; A negative and B negative are correct. Were you to connect the B positive to the negative of the "A" battery—well, you'd soon know all about it. I suppose you mean it is usual to connect A positive and B negative together? In that case, the answer is "sometimes." As a matter of fact, it makes no difference whether you connect A positive and B negative, or A negative and B negative. Never connect the positive terminal of the "B" battery to the "A" battery.

E.S. (Mascot).—"I am going to build the Peridyne, and instead of using two Bradleystats, would two Emmcostads No. 1 do?"

Answer: Yes.

(2) "Would an Emmcostad No. 2 be suitable in place of the Royalty Resistance?"

Answer: Yes.

(3) "The valves light up with the switch off."

Answer: Evidently there is either an internal short in the switch, or the connections to the switch are incorrect. Perhaps, also, there is a wire shorting somewhere. Check over connections.

(4) "I must say that 'Wireless Weekly' is getting better each week, and I think it is the cheapest 3d worth that can be bought. May I offer a suggestion? Why not have a 'For Sale and Exchange' page in 'W.W.'? I am sure there are plenty of amateurs with spare junk that is of no use to them, but that will be of use to others."

Answer: Thanks for your kind remarks. Your suggestion is impracticable, because it constitutes advertising, and, therefore, a charge would have to be made.

I.H.A. (Queensland).—"As I intend building the Peridyne Screen Grid (Super) receiver, I would be pleased if you would advise me as to the following: I have ordered the following list of valves—2 Philips 442 S.G., 1 Philips B-409 Detector, 1 Philips B-403 1st audio, 1 Philips B405 2nd audio. Are these O.K.?"

Answer: A good selection.

(2) "Using 135 volts 'B' battery, would I need to increase the negative bias voltage?"

Answer: Yes, by approximately four volts.

(3) "I take it that the negative bias is the 'C' battery voltage. Am I right?"

Answer: Perfectly.

(4) "Would I be safe in putting 90 volts to the Screen Grid Terminal, and 135 volts to the B plus R.P. and audio terminal?"

Answer: You would be quite safe in doing this, but for best results you would have to experiment with the voltage. You will find, I think, 80 volts are best for the S.G. itself. The plate of the S.G. valve is not critical—use about 120-135 volts.

(5) "Would 45 volts be suitable for the B plus detector terminal?"

Answer: Yes, but try a little less for best result.

(6) "When the set is ready for testing, about how far will I have to adjust the Bradleystats and knobs on top of each Peridyne coils?"

Answer: This can only be determined by experiment.

(7) "I intend putting a Ferranti O.P.1 output transformer into my set. How would I connect same? My audio transformers will be Ferranti A.F. 5's."

Answer: Connect the O.P.1 in place of the Jack. The primary terminals are connected in place of the Jack, and the secondary terminals should be connected to the speaker Jack.

(8) "Which is the best speaker for this set, out of the list below?"

Answer: The Senior Sonochores Cone.

(9) "The wiring diagram does not agree with the wording as regards the filament wiring."

Answer: This was an artist's error, and has been corrected numerous times through these columns. Follow the wording. Connect the A positive terminal through the filament side of the jack to the positive filament terminals of each valve socket.

(10) "Would it be an advantage to cover the back of the front panel with tin?"

Answer: Yes. If it is earthed, and clear of high potential components.

(11) "I am looking forward to receiving 'Wireless Weekly' every week. I am a new subscriber. Is the following diagram of a valve correct?"

Answer: The diagram is correct. It is not usual for us to answer so many questions at once. There are hundreds of other readers to be catered for. However, as you are a new reader, you are probably not aware of the conditions, so we have answered

QUERY COUPON

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

Please enclose the accompanying queries in the 'WIRELESS WEEKLY.' Your earliest convenience. I enclose this coupon in order to indicate that I am a bona-fide reader.

all your queries this time. Thanks for your kind New Year wishes, which are reciprocated.

J.W. (Rozelle).—"Is the circuit enclosed capable of picking up inter-State stations?"

Answer: A set built according to the circuit forwarded should pick up inter-State stations with ease. Providing the receiver is properly built.

(2) "Is the first coil wired O.K.?"

Answer: Yes.

(3) Would this circuit take much altering to pick up inter-State stations?"

R.D.L. (Auburn).—"Many thanks for the replies to my queries which I found in 'W.W.' on December 28. Acting on your advice I pulled the set to pieces and rebuilt it according to the circuit in 'Radio,' December 15, 1928, under the heading 'Improved method of Receiver Construction'—with one or two minor differences. The results obtained far surpassed any obtained with the single-control Reinartz, about which I wrote. Thanking you again for the helpful reply, which has been acceptable not only to myself, but to other wireless fans."

Answer: Your keen appreciation demands our thanks!

R.T. (Kogarah).—"I have been trying to make a success of the Marco Four with an additional stage of radio frequency added to it, so as to make a five-valve receiver, one-dial control. Could you advise me how I can add a stage of R.F. to the Marco Four without having to change the appearance of the set?"

Answer: Build the R.F. Booster Unit.

F.G. (Wolongong).—"On the cover page of current 'W.W.', dated 4/1/29, is an illustration of the Pilot Air Scout Five. My curiosity is aroused as to how the writing shown on the front panel is done."

Answer: The lettering is first engraved with a machine, and afterwards filled in by hand with gold size.

"Coil" (Marrickville).—"Enclosed is the circuit of my receiver (a Marco Four) which is not giving me much satisfaction. I turn the R.F. rheostat off, the set works O.K. on three valves, but when I turn the rheostat on it is very mushy. Can you give me the reason for this. I am using an eliminator. How many turns on the correct number of turns on the coils? The set is very clear, with only three valves working."

Answer: Too many turns on the R.F. coil. Remove seven turns. Remove two turns on local secondary coil. Add five turns to reaction coil. See that the R.F. valve is in order. Suggest an A410 instead of that you are at present using."

G.A.S. (Victoria).—"As you have been giving a lot of prominence of late to screen-grid valves, I am writing to know if it would be any improvement in my set (circuit attached) to put an additional R.F. stage on—this stage to employ a S.G. valve. As you will see, I am using a series filament in conjunction with an A.B.C. eliminator (home constructed). When the set was made it was designed for quality of tone, with volume and stability, but now I have an idea to make a five-valve for purposes of inter-State reception (being unable to bring in inter-State stations at present)."

Answer: Yes; a stage of R.F., using a screen grid valve, would make a great improvement. Amplification on inter-State stations with the S.G. valve is not short of wonderful."

"Anxious" (Marrickville).—"I have a super five-valve Neurodyne receiver using five Harmonic IX-201A valves. Could you recommend anything that I could use to pick up London or any long-distance stations? I can only pick up local stations, and reception is only quite new."

Answer: You should be able to receive several inter-State stations—particularly 3LO, who come in at great volume at Marrickville. In order to receive London and other long-distance stations on short waves, you will need a short-wave adapter. Circuit and instructions for such an adapter appeared in these columns on Page 48 in the issue of January 4, 1928. London cannot be received on short-wave receiver, except by relay from a local station.

W.T.M. (Narrabarra).—"I have tried the Glocmasher Five without success. I then tried it with the screen-grid, as shown in your columns, but still without success. I would like to know these circuits are correct, as I have followed them faithfully, and used the parts requested. With five valves in I get a fair amount of noise, but cannot tune anything, nor even get a squeal, unless I touch the detector or crystal."

Answer: I am inclined to think you have wired wrongly somewhere. Try attaching the aerial and earth to the top and bottom of the detector grid coil, respectively, then list in one the detector valve in the R.F. stage and the audios. If this is O.K., listen on two valves, i.e., det. and 1 audio—then three, four, and finally five valves. This will give you an idea of where the error lies. If you have repeated the checked wiring and found it correct, the trouble may be due to a faulty component, or a valve may not be making contact in its socket.

B.T. (Armidale).—"My wireless set (an R.O.A. two valve) is exactly the same circuit (as far as I can see) as the Go-getter short-wave receiver, except for the use of the present coil having two condensers, as one coil rotates inside the other. Could short-wave coils be made for this receiver?"

Answer: No. The circuit is not the same, as the Go-getter has no condensers. Are used. You would find it almost impossible to tune-in short-wave stations merely by means of adjustable coils. Condensers will be necessary.

(2) "Could you tell me where I can get a book on the construction of small generators, electric motors, or dynamos, at reasonable cost?"

Answer: Angus and Robertson can supply "Dynamo and Electric Motor Building," by Cassel (price 2/), also "Dynamo and Motor Erection and Management" (Cassell), price 2/.

T.M. (Blue Knob).—"I have built the five-valve screen grid Browning Drake described in 'Wire-

less Weekly,' and cannot get this receiver to oscillate or work satisfactorily. I have tried reversing in reaction terminals, but will oscillate when right on stations only. When I cut out oscillation with reaction coil I also cut out station. It also motor-boats at times. I have tried an R.F. choke in the plate lead of transformer. This cuts out everything. Could you tell me where I have made mistakes in wiring?"

Answer: It seems that you are not too sure of your wiring. It is hard to say where the error would be. Check in the plate lead of transformer—particularly on the S.G. valve. Test primary of the first transformer. Place a .001 fixed condenser across the primary of the first transformer. Test all connections and valves.

"Goulburn" (Goulburn).—"I have a four-valve Browning Drake, using a Zozo Coil Kit (a 'Wireless Weekly' circuit published two years ago), using Phillips valves (new), Crossley transformers. The A410 battery is good (I have my own charger), and the 'B' (a Philco) has been freshly charged. I find that the set gets very harsh and distorted on high notes, and will not give any volume without distortion. The reaction or tickler coil can only be moved a few degrees, when the set will howl. This has only recently happened. For twelve months I have had perfect reception; I tried altering the 'B' voltage tapplings, but find the R.F. stage will only take about 45 volts, and the 'B' voltage will only increase howling, with little change of valves, without result. 'B-600 gives best results in last stage. Have tried new 'C' battery, without result; also new fixed condenser across secondary of first transformer, with no effect. I have also tried a new speaker—all without results. Can you tell me what is wrong?"

Answer: Your letter points accusing fingers at the transformer. Test both of them. These transformers may be good, but perhaps dampness has got into the cabinet at some time. In any case try other transformers. You should periodically place an electric globe, connected to the mains inside the cabinet, and this will dry the air and thus protect your transformers. Try a .002 fixed condenser across the secondary of the second transformer, and a .0005 fixed condenser across the telephone or loud-speaker terminals.

G.V.J. (Mosman).—"I would be kindly pleased in 'Wireless Weekly' Radio Informer Service a copy of the 'Sportsman's Prayer,' which 2BL has recently been broadcasting in connection with King George's health?"

Answer: The following is a copy of the 'Sportsman's Prayer,' which hangs in the King's private room at Sandringham: "Teach me neither to cry for the moon nor cover spilt milk. Help me to distinguish a moment from a momentary cleaving to the one and doing the other. Keep me neither to proffer nor receive cheap praise. If I am called upon to suffer, let me be like a well-bred beast, who goes on his way and suffers in silence. Teach me to win when I may. If I may not win then, above all, make me a good loser!"

A.T. (Corfield).—"I have nearly all the issues of 'Wireless Weekly' for the past three years, and these are of an use to all readers, am willing to rail them. My address is: Mr. A. Tyler, 'Lerida,' Corfield, Queensland."

Answer: Thank you, Mr. Tyler.

T.A.P. (Glebe).—"I have a five-valve Neurodyne with an audio stage. I am using five 201A R.O.A. valves, 5 volts. Will you please tell me what other valves I can use in this set? Is it possible to use a power valve? If I put the 45-volt lead on the 80-volt tapping and the 80-volt lead on the 45-volt tapping, is there a difference would it make? Will it do any harm?"

Answer: The Phillips' C 609 is a good power valve that will suit your requirements. Suggest you use this valve with the complete set of 201A valves, 6 volt series. These will be quite O.K. Use the A-615 for detector, A-635 for R.F., and A-609 for audio. If you make the alterations in 'B' power suggested, the set will oscillate loudly. If you will not do this in any way, but will cause annoyance to local listeners.

M.W. (Ultimo).—"I have a carborundum detector set, and I have noticed that whenever I tune into a station I get it strongly for about a minute; then it will die out gradually. This is the second carborundum set I have had, and the first one played up in the same manner. I would like to know if carborundum wears out; if so, can I take the detector out of the sockets when I have finished? I have only had the detector for six weeks."

Answer: The detector should not behave in this manner. Perhaps you have hold of a cheap link. The best you can get is that sold out by the Carborundum Company. It is sold in a complete unit, with battery and potentiometer. If your detector can be taken to pieces, see that there are no loose contacts.

E.T. (Rose Bay).—"I have recently constructed a Perdyne five-valve receiver using the set in 'Radio.' I can receive all local stations with excellent volume, but can get no response from inter-State stations."

Answer: Try reversing the crystal. See the Perdyne article appeared last week.

"599" (Belmore).—"I received from a wireless shop a diagram of a crystal set with a .00035 condenser. I built the set, but had no results. Herewith please find drawing. Is same correct? Can you supply me with a circuit in 'W.W.' on which I can use a .00035 condenser?"

Answer: Yes; build the circuit appearing in these columns published December 7, 1928. Wind the coil with 65 turns for your condenser.

GENERAL.—After wading through five or six pages of almost unreadable matter I sometimes am greeted with a postscript, "What I want to know is—." Will readers please in future state their query before describing the appearance of the receiver from which the error in the article is due.

K.R.H. (Newcastle).—"I would be very pleased if you would tell me what is the cause of the

following: Every time I put a fixed condenser of any ordinary capacity such as .0005 in the aerial lead to my Schenck receiver (3 valve) the tuning is completely reversed; that is to say, whereas now the receiver oscillates more easily when the plates of the tuning .0005 Pilot S.L.F. condenser are right in—when the fixed condenser is placed, as explained, above the receiver oscillates more easily when the plates of the condenser are swung out. Also I have experienced trouble in not being able to bring the tuning condenser plates right out, because of the howling noise being set up—that nothing can remove except by bringing the condenser plates further in. This is very annoying, and I thought perhaps it might be that my aerial is too long, although it is only 10 feet with lead-in. I am using it with a detector and two audios with the three-coil tuner."

Answer: Your reaction coil is too large. Remove approximately ten turns.

E.S. (Mascot).—"I am writing to you for some advice about the five-valve Perdyne in 'Radio.' I have three Advance Little Conroy condensers .0005. If I were to gang the three together would this do?"

Answer: Yes.

(3) "Instead of Royal variable resistance would an Emmcostad do?"

Answer: Yes.

(4) "I built the eliminator described in 'W.W.' using the bell-ringing transformer. I am using it on a five-valve Neurodyne, and when I put the eliminator in the set the valves light up with the switch off. Will you tell me how to put it right?"

Answer: Place a fixed condenser of .002 mfd. in the earth lead, or disconnect the bottom of the primary from the bottom of the secondary.

(5) "Wireless Weeklies' for the last two years they can have them by calling at my address, free of charge."

Answer: Thanks, Mr. Snook. Readers desiring to pick up copies will find Mr. Snook at 151 Botany Road, Mascot.

W.J.R. (Bairwood).—"Would you kindly advise me in 'Queries Columns' what kind of battery-powered wireless set would be the best for me to purchase? I am a resident of the suburb of Rockhampton, Queensland, about 1100 miles from Sydney, and I would want to get all Australian stations at loud-speaker volume. An electric gramophone pick-up would also be used on the set. In the event of power-mains becoming available would it be possible to convert a battery-operated set into a high-voltage all-electric set? If so would the high-voltage all-electric set give better results?"

Answer: Get in touch with Colville Moore, who can cater for your requirements. In the event of your being supplied with power, the set can be made to operate efficiently using an A.B.C. eliminator.

W.H. (Kurrajong).—"Recently I obtained some inter-State valves. Tetrode, double grid, about which I can obtain no information. The valves have written on them 'Phillips' Minvatt BV1-18 to be purchased in Holland, etc.' They have the usual UX-four-pin base, except that the pins are shorter and thinner. The extra grid is attached at the side. The following is what I desire to know: How many are applied to the plate? How many volts are applied to the extra grid? How much grid bias is applied to the usual grid?"

Answer: For the plate, supply 30 volts. The extra grid should have 15 volts, and the grid bias 42 volts.

W.C.H. (Cooma).—"I often read in the weekly answers to queries, information that is exceedingly useful, and now I am asking for some information myself. Would you please tell me what is the most suitable circuit for me to use to build a set using as far as possible the parts of a four-valve Reinartz. Also where could I get the diagram necessary for the alterations?"

Answer: I should not advise you to change your Marco Four for any other receiver of less than five valves. However, you can try the Browning Drake receiver. Colville, Moore have blue prints.

A.G.H. (Wellington).—"Please let me know through your journal if the screen grid valve could be used with advantage in the Marco Four—and standard five-valve Neurodyne. If possible, perhaps you would be good enough to publish in 'W.W.' either or both diagrams of both above sets with screen grid."

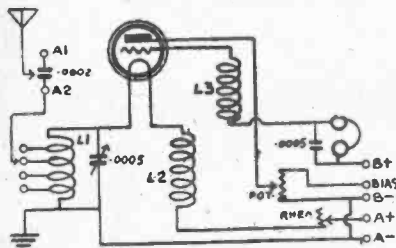
Answer: Sorry, but space for the next few weeks will not permit inclusion of too many diagrams, though if you care to write a little later I shall be pleased to meet your requirements. You may be pleased to hear that we are shortly publishing the Marco Four with screen grid.

V.C. (Waigait).—"I should be greatly obliged to you if you would give me the reasons for the following phenomenon. On several occasions, both when tuning-in and whilst the programme is in progress, I have heard the voices of neighbors tuning in from the loud-speaker. The people I mention are always speaking on the telephone when this occurs, and last night a telephone conversation so interfered with the programme from 2FC that I took complete charge over the broadcast. Last week, listening to the cricket talk from 3LO, I was astonished to hear the cry of a kookaburra, quite as plainly as the announcer. I must say that kookaburras are common about here."

Answer: The telephone phenomenon is easily explained. There is a transformer leak in the vicinity. The inspector should be advised. Regarding the kookaburra, understand 3LO have a hanky, who is a regular performer from that station. Otherwise I cannot explain this latter part of your query.







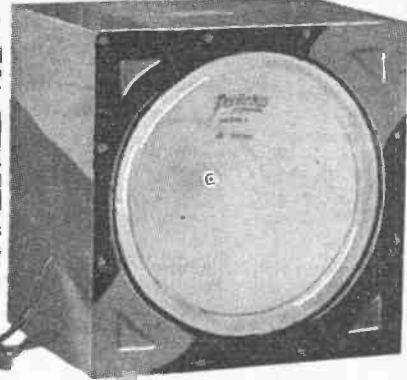
The Philadlyne One-valver, for which we have received many inquiries.

# New Apparatus Tested & Approved



**PEERLESS CONE REPRODUCERS**  
 SINCE the perfection of the cone type reproducer, the Peerless "Gothic" model has been well known as one of the most reliable types of cones available. Many of America's leading radio manufacturers have standardized Peerless reproducers in their productions by reason of their merits.

There are many home constructors who would like to include in their cabinet design a cone unit which will take up a minimum of space without any sacrifice of efficiency. The new Peerless built-in reproducer unit is very suitable for such requirements for various reasons. First, it is extremely compact, being assembled in a square cabinet measuring only 9 1/2 in. wide by 9 1/2 in. high by 6 in. deep. The mechanism of this unit is the same as the well-known "Gothic" type. It may be mounted in an enclosing cabinet by suspending it on coil springs, much in the same way as one would mount a microphone. The result of arranging a reproducer in this manner is that no vibration is transmitted to the cabinet, thus avoiding rattles. These latest of



Peerless productions may be seen and demonstrated at the showrooms of Latimers Wireless Supplies, Ltd., 151 Castlereagh Street, Sydney.

W.M.D. (Mascot).—"I have a four-valve Airzone portable set, and I think the fuse has burnt out, as the second valve won't light. Do you think you could help me, and could you send me a circuit of same. Stamped envelope enclosed."

N.W. (Blackall).—"Will you please send me a circuit of a short wave adaptor for a five-valve Neutrodyne?"

S.A.S. (Belmore).—"Would you kindly send me particulars concerning the joining of a radio club, and their whereabouts, in the vicinity of Burwood, Enfield, of central City of Sydney?"

J.R. (Gympie).—"I have for some time been trying to ascertain the name and address of the N.S.W. agents for the Freshman Masterpiece radio set, but, up to the present, I have not been successful in my quest."

M.S. (Goulburn).—"Having in mind the construction of the Go-Getter short wave receiver, I take the liberty of soliciting your advice, as to the best brands of parts necessary to construct the above receiver."

R.B. (Lakemba).—"I wish to submit a query to you with regard to the using of the lightning current instead of an accumulator. Reading in a paper recently a similar query I thought I would submit my problem to you. The inquirer's set was a three-valve, using UX 201A valves, and the enclosed diagram was given to enable him to eliminate his accumulator. The current he wished to use was 220 volts D.C. Could I use the lightning current here in the same manner on a five-valve set, and what would the connections to the valves be? I am using UX 201A valves."

A.J. (Queensland).—"We are having many inquiries in reference to the list of short wave stations which you publish, as to the times at which these various stations are transmitting, and we would be much obliged if you could give us this information, more especially as regards 3LO, 2PC, 5SW, and PCJJ."

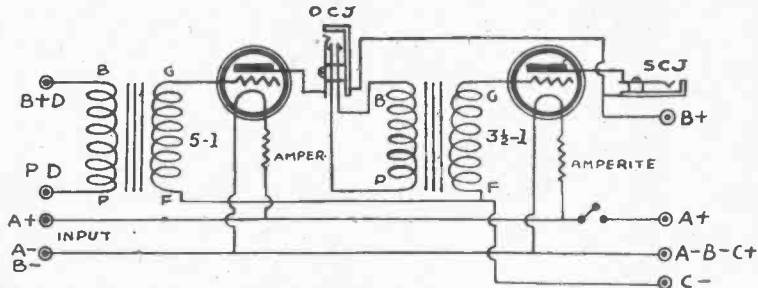
C.M.T. (Innisfail).—"For several years I was a subscriber to 'Wireless Weekly' in Sydney, and now I am at Innisfail, would you be good enough

to let me have a circuit for a two-valve receiver suitable to receive Sydney up here?"

Answer: Circuit is published in these columns, with full information. It is an Inverse Duplex.

H.D. (Strathfield).—"Would it be asking too much of you to send me the circuit of a wavetrap? I will shortly be moving to Maroubra, and I find

Answer: The circuit appears in these columns.



A two-valve transformer coupled amplifier, which can be added to any one valve or crystal receiver.

V.G.W. (Wellington).—"I wish to obtain particulars of the 'Wireless Weekly' Threelux, which I understand was described in 'W.W.' dated 24th February, 1928. I shall be greatly obliged if you forward me a copy of this issue."

J.A. (Penshurst).—"Please forward one circuit for a two-valve amplifier, suitable to add to a crystal receiver."

that 2BL and 2UE drawn every other—more so 2UEV."

Answer: The circuit you ask for appeared in Queries columns January 4, 1929.

E.N. (Bellevue Hill).—"Please give me a circuit for a selective crystal set."

Answer: The circuit was published in these columns on the 7th December, 1928.

M.G.W. (Tasmania).—"I have constructed the superhet described in 'Radio' for Australian conditions. It works very well, but is not too selective. The small stations come in on the speaker, but the intermediate valves have to be on the point of oscillation and the rushing sound predominates."

Answer: Evidently parts are not matched. J.T.P. (Greenwich).—"My set suffers from hand-capacity. What is the remedy?"

Answer: See that the moving plates of the condenser are connected to the filament or earth circuit, and that fixed plates are connected to the grid circuit. If hand capacity is still prevalent, place a .002 fixed condenser across telephone terminals.

J.G.L. (Lithgow).—"In reference to your reply in 'W.W.' regarding the loss of list of parts of four-valve Reinartz receiver, the list was placed in the envelope with the letter, so I am enclosing another list of parts and diagrams."

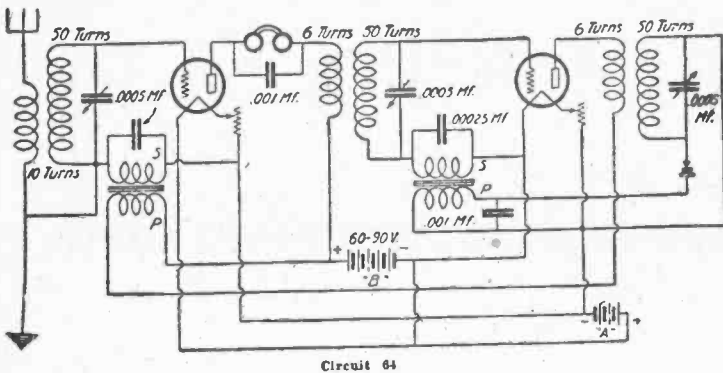
Answer: The circuit appeared in these columns on January 4, 1929. It is known as the Marco Four. The parts are O.K. As requested, we are publishing the baseboard wiring of the Marco Four next week.

J.W.K. (Queensland).—"Could Osram Marconi, or Philips' screen grid valves be used instead of Radiotron S.G. valves in the Midget all-wave receiver?" ("Radio" for September)."

Answer: Yes; suggest Philips' A442.

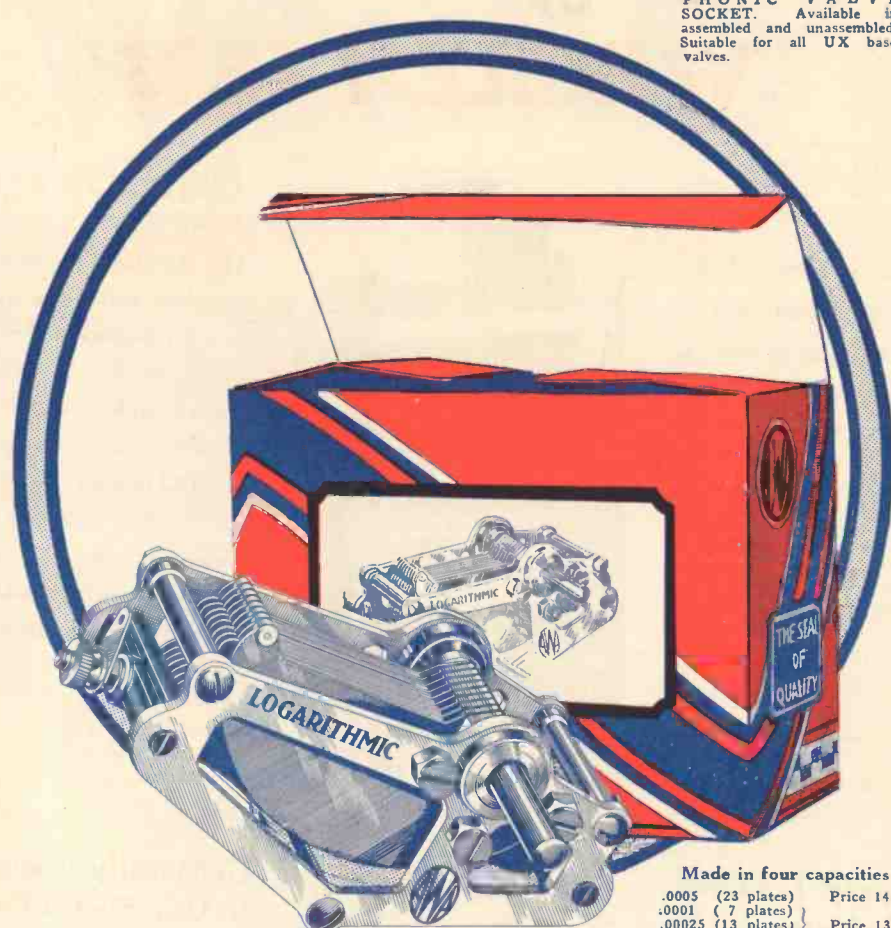
C.W. (Rose Bay).—"Can you give me any idea where I could obtain a blue print of a receiver incorporating 1 stage R.F. detector, 1 stage transformer, and 2 stages of impedance coupled audio, the last valve being a power valve?"

Answer: Colville Moore, Rowe Street, Sydney.



Circuit 64

The Inverse Duplex, in which each valve acts as an R.F. and an audio amplifier.



A.W.A. IDEAL TRANSFORMER. Made in 5 ratios. 1 to 1 (special output), 2 to 1, 3½ to 1, 5 to 1 and 9 to 1.  
 A.W.A. NON-MICROPHONIC VALVE SOCKET. Available in assembled and unassembled. Suitable for all UX base valves.

Made in four capacities  
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 .0001 (7 plates) } Price 13/6  
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 .00035 (17 plates)

A. W. A. Logarithmic Condensers are designed on the central line principle. This, combined with their square law characteristics renders tuning extremely selective. Hollow spindle makes provision for clockwise and anti-clockwise movement, together with gang operation if required. Absolute minimum of insulating material—essentially low loss. Silver-plated throughout, giving attractive appearance.



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