

WIRELESS WEEKLY

Broadcast Programmes a Week in advance

VOLUME 9



NUMBER 21



*Broadcast
Music
By Oswald Anderson
(See page 5)*

Friday, March 18, 1927.

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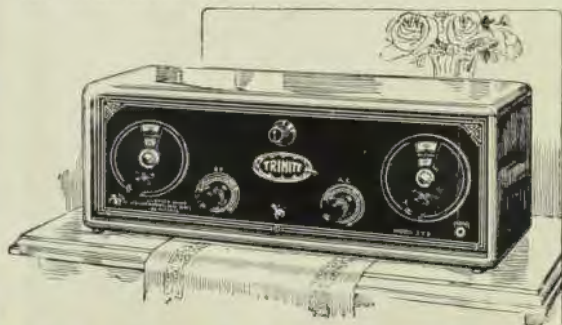
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WIRELESS WEEKLY

VOL. 10, No. 21

FRIDAY, MARCH 18, 1927.

British Wireless Trade

LAST year Britain exported £1,301,647 worth of radio apparatus, £33,440 less in value than that exported during 1925. The notable decreases were in the exports to Europe, Ireland, United States, Canada, South Africa and Japan. Increases in the exports to Australia, New Zealand, India and South America were not sufficient to balance this loss of trade.

Many reasons have been advanced for this deplorable lack of progress—notably the industrial strife which upset much of the country's commerce during the whole year. But there is much more in it than the restrictions on fuel and power alone, according to the leading export papers of Great Britain. In their view the drop is due solely to the "chicken-hearted" attitude and "bungling methods" of the British manufacturer. That there is much in this the Australian trader who bears the brunt of the manufacturers' mismanagement will bear out. Again and again Australian buyers have complained that despite strong Imperialistic leanings and many other sentimental ties they cannot afford to handle British wireless goods while the British manufacturer gives a bad service, and scant attention to the real needs of the market.

Nevertheless Australia imported £297,357 worth of British goods last year, £37,225 more than was imported during 1925. This increase, however, does not indicate that British goods are highest in the public favor, for the increase in the 1926 imports from America over the 1925 imports was considerably greater.

Unless the British manufacturer corrects his mistake, these figures will be even greater during 1927. The action that is needed to bring the British manufacturer into line with the American manufacturer was very aptly summed up by the British Prime Minister (Mr. Stanley Baldwin), in a public statement at the British Industries Fair.

"The problem before us is to produce the goods that are required," he said, "and let the world know that we have them. On the production side I have no fears, since the skill and capability of our manufacturers are as great as ever. On the selling side we must drop our antiquated and inefficient sales and propaganda methods, and utilize to the full, the recent great developments in the fields of salesmanship and publicity."

This is the crux of the whole matter.



Between You And Me And The Microphone

Conducted by Jack Plugge



GERMAN RADIO FANS are petitioning the president of the Reichstag to permit the broadcasting of all debates of that body. Glottions for punishment, these Germans.

DURING THE RECENT hot weather the temperature at the transmitting station of BCL was very seldom below 110 degrees. The big transmitting valves when working radiate quite a lot of heat, and conditions for the operators were uncomfortable at times.

4QG received a lengthy letter recently from a correspondent who pointed out that fearful consequences will shortly befall the station in fulfillment of certain prophecies which were made in the days of Israel. The letter contained quite a number of Scriptural texts which the writer said should be looked up. Most of these texts referred to "inventions" and the writer had interpreted them as being meant for 4QG and had warned the station accordingly.

MORE THAN 15,000 people attended the Melbourne Wireless Exhibition on the opening day, 10,000 being present when the Governor General, Lord Stonehaven, performed the opening ceremony. "It is a privilege to open the exhibition of a utility so vital to Australia," he said, "and the development of wireless provides the greatest inducement for settlers to go outback and develop Australia." Lord Stonehaven added that the development of wireless meant keeping the outback in close touch with the metropolis, and would be the means of good settlers taking their wives to the undeveloped areas.

ALL LISTENERS received with grief the news of the passing of Alberto Zelman, one of Australia's most gifted musicians. Throughout his brilliant musical career he put no more enthusiasm into his work than into his recitals through 3LO, and listeners are so familiar with his beautiful work that his loss will be a personal grief. His illness was brief.

A "WIRELESS WEEKLY" correspondent complimented 2BL last week on its grand Good Night. But my friend Smith and his young lady still hold the record easily.

"HOW much do you charge for your rooms?"

"From ten pounds per month up."

"But I'm only a poor Scotch broadcaster."

"In that case it's ten pounds per month down."

"DO YOU BELIEVE?" in auto-suggestion?"

"Is that the system where you keep on repeating, 'Every day I get better and better, and you get well if you're poorly?'"

"That's it."

"Well, I believe in it. Every day for the last three months I've said to myself, 'Some day I'll get a summer'—for not having a wireless licence, and sure enough it came yesterday."

HAVING COMPLETED 100 performances "on the air" at 4QG, Mr. A. E. Featherstone, the pianist-conductor of the 4QG Studio Orchestra, states that 633 musical items have been rendered, which include 80 overtures, 86 valses, 14 operatic selections, 64 comic opera selections, 17 suites, 39 topical selections, 84 jazz numbers, and 240 miscellaneous items in which violin, saxophone and cornet solos are included. Very few numbers have been repeated and then only by special request.

INTO 2FC STUDIO strolled a gentleman recently from San Pedro, who said it was such a common thing for them to receive Sydney programmes in San Pedro, they did not bother to write about it. He went so far as to say that California deliberately reached out and chose their overseas programmes from Australia. In his experience 2FC was the most popular and easily located station, and one that submitted wonderfully diversified programmes. He thought that the English programmes were not as attractive to Americans as those from Australia.

THE VIENNA FIRE BRIGADE is being equipped with radio telephony transmitters and receivers in order that communication can be maintained with headquarters during attendance at a fire.

THE U.S. DEPARTMENT of Commerce announces a 60.4 per cent. decline in phonograph output in two years, the number of manufacturing establishments dropping from 111 to 88. The principal phonograph companies have gone into the radio business.

EVIDENCE of the efficacy of broadcasting was given during the week when 2BL was able to locate a man whose wife had met with a serious accident. While holidaying at Bulli the wife fell and broke her leg. It was desired to notify the husband, but his whereabouts near Tuggerah where he was visiting were unknown. In response to a telephone request from Bulli, 2BL broadcast a message to the husband. Within an hour they were notified that the man had been located and was on the way to his wife.

THERE are lots of things for which the blame as well as the praise may be laid at the door of radio, that is if two or three of the recent letters received by the 3LO entertainer, Miss Maggie Foster, can be taken as a guide. There would be many bank-ruptcies, for instance, if every shopkeeper were like the one who wrote to Miss Foster stating, "I'm in a little business, but when I hear your name announced I close the shop door so that I will not miss a note of your beautiful music!"

THEN, THERE was one hole centreing around that grand old institution "bath night." One enthusiastic housewife informed Miss Foster that her violin playing had caused a slight difference in the family peace. Miss Foster's item was announced for 10 p.m. and the writer's husband refused to have his bath in case he should miss the item. The argument over who should bat first apparently was a spirited one.

Perfect Reception Every Day Possible with Philco.

Every Listener-in Enjoys Good Music



The Manager of 2FC, at his desk where he directs the arrangement of every programme broadcast from that station.

By OSWALD ANDERSON

SOMETHING better than that, Jack, for goodness' sake."

The staggering crash of a popular dance band was cut off abruptly as the operator of the set felt for another station with his dials.

"I am wearied to death of this persistent jazz, jazz, jazz. Sometimes it is entertaining, enthralling, enlightening, but one tires of it so quickly. Tune in that instrumental trio at 2FC. I believe that they specialise in the old masters."

I might continue the illustration and say that this is a distinctly highbrow conversation, just as the Editor described a lowbrow conversation in his editorial of two issues ago, but that would defeat my purpose. I wish to show that these words are typical of almost every listener in at one time or another; that they might have been uttered by the same speaker who wanted "Something snappy, Jack."

It was a perfectly true picture in which the dial-twister was shown tuning out the trilling soprano in search of more trivial fare, but he need not necessarily have been a lowbrow. The classical music-lover does it also, for the most devoted follower of Beethoven wants diversity—(do we hear a small voice saying, "We don't wonder").

Human nature is a mass of inconsistencies; it is as futile to attempt to divide listeners into lowbrow and highbrow sections as it is to divide good and bad, and it is just as hard to define the first two words as it is the last two. There is much that is classical in jazz and syncopated music and much that is jazz in classical music.

A reply to our editorial of last week's issue in which it was stated that Broadcasting had at last come into line with the theatre and the cinema as a popular entertainment.

The editorial article, "The Lowbrow Wins," reached me just after I had been listening to an excellent rendering of the "Ride of the Valkyries" from an adjacent studio. The announcer had also included in that session the "1812 Overture," and some delightful pieces from the lighter classics. I wondered then where was the listener who found no joy in these wonderful and popular classical performances. The operas of Gilbert and Sullivan, excerpts from which listener-in heard only the other day during the broadcast from the Mikado, are extremely popular. Yet they are referred to as "classics" of light opera.

I could go on and name many other musical pieces liked by everyone. The continual rendering of Mendelssohn's "Spring Song," Rubenstein's "Melody in F," the Intermezzo from "Cavalleria Rusticana," and in later days, Rachmaninoff's "Prelude in G"—these are all the compositions of "classical" writers, but have become, with continuous repetition, so familiar to the man in the street that he can readily say: "Oh yes, I am very fond of Mendelssohn's music, Rachmaninoff's music," and so on, but if he had to sit and listen to some of the more serious works of these masters he

would realise that his taste was due to the melodic quality of the compositions mentioned—not to the fact that they were written by famous composers.

That is really the only distinction between the highbrow and the lowbrow, one who knows music and one who does not. Listeners-in generally have appreciated the hundreds of beautiful compositions broadcast from 2FC by the Sydney Instrumental Trio during the last few years, but the listeners to whom this music has made the greatest appeal are those loath to rush into print, or to burn up pennies "phoning the Studio with expressions of delight—the highbrows. They tune in and listen, and inwardly register satisfaction. Lovers of music, submerged and overwhelmed on all sides with popular, or as they call it, "cheap" music, become very humble and accept thankfully and silently the more refined musical offerings of the various broadcasting stations.

The lowbrow wants something snappy. He wants it every minute of the day and is not reticent about saying so. The continual influx of his letters leaves me disinclined to allow the highbrow to have his share. Even had we not agreed that broadcasting is essentially an entertainment, his letters could not have failed to make this fact apparent, for he refuses to be educated in any way.

But the reader must not think that 2FC has abandoned the broadcasting of better class music. I will not admit that the standard has been lowered. Looking through our programmes for the past two or three months, and glancing over our commitments for the next few weeks, it

is apparent that although we are sandwiching many more light items into the programmes, we are broadcasting just as much "highbrow" music as formerly.

As the majority of listeners possess sets capable of tuning into various stations, it is not easy to hold their attention with anything lengthy, and for this reason it is wise, I think, to restrict all offerings to as brief a period as possible. In the early days, when the majority of listeners possessed crystal sets, they gratefully accepted everything that came their way. They could not get a diversity of items because they could not listen to items from more than one station, owing to the limited range of their instruments.

Then as the other stations came into operation listeners either had to make their sets more selective or put in a valve receiver. Many listeners, alas! fell by the wayside during this transitory period. Some could not afford the expense, others could not be bothered, and gave as their excuse for dropping their licenses that the programmes were not worth listening to. This could be expected, but it has been clearly shown that although we have not had the enthusiastic rush for new licenses as has been the case in the sister State, the increase has been steady and solid, and there are to-day in this State, many more satisfied listeners than has been the experience in the past.

Listeners know now what wireless has to give them—and no miracles are demanded. They are content to explore the ether, extracting that which appeals to them most. They have gone through all the worries of interference—the blessed word "selectivity" has been over before them, and listeners as a whole have emerged successfully through the varying conditions. This contention will, I think, be borne out by the N.S.W. trade generally.

Coming again to the question of arrangement of programmes. Although we have temporarily lost the services of the Sydney Instrumental Trio, owing to the absence in Melbourne of Mr. Litalley Evans, we have made arrangements for the good work to be carried on in other directions. The new Austral Trio, including three well-known musicians—Alexander Sverjensky (pianist), Miss Daisy Richards (violinist), and Mr. Jules Van der Klei (cellist)—will be heard from 2FC later on in the month. Madame Evelyn Grieg, the well-known pianist, in association with M. Henri Staell, is now busy preparing programmes which will be acceptable to listeners who are seeking for the better type of item. Orchestral combinations will be heard in programmes of a highly musical charac-

ter and other important artists will enter into the general scheme, but if radio is primarily a matter of diversified entertainment lighter class items must predominate.

Listeners may have noticed recently the increase in the number of varied instrumentalists heard from 2FC, for we have realised that the vocal side of radio is being flooded, and as the ideal programme from a broadcasting point of view is variety of sound, listeners may roam the ether for their entertainment with a timed programme as their guide, and can cross over and back from station to station to pick out the item they require. But the crystal set owner, the head 'phone listener, is a little more difficult to cater for. Having made himself or herself comfortable in an easy chair, the listener settles down for an hour of enjoyment. In that hour, nine or ten totally different items are heard. He hears a soprano "trilling a high note," but this pleasing item is replaced with a banjo solo. This item brings a frown, because if there is anything in the world he hates it is a banjo solo! How on earth any broadcasting company can put such a thing on the air passes his understanding. And yet his next door neighbor is fairly drinking in every "twang" while he enthuses: "That's the sort of stuff we want on the air—as many banjo solos as they like!"

It is certainly a bother to take the car 'phones off every now and again, but it is impossible to give a continuous programme of thirty minutes' duration guaranteed to meet with general approval. The loud speaker owner has so much more scope to work on for, he tunes out and tunes in sopranos and baritones without quarter, and can reach out without difficulty to get the noisiest station he can. To him is not a distorted item a thousand miles away infinitely preferable to good music from a local station?

It will be impossible, we are afraid, to guarantee that the highbrows and the lowbrows will come out with "honors even." If broadcasting programmes present more popular than classical items, it is for the same reason that the newspaper that publishes the brightest articles sells best. On Saturday morning, coming into town on the ferry or train, every man folds in his hand a bulky newspaper, but 80 per cent. of these will be left on the seat at the end of the journey. Think of educational articles that are unread by the majority, articles dealing with art treasures and pearls of prose and poetry. But there is the minority which carefully folds the newspaper for later consumption, and it is this minority which may be likened to the comparative few who prefer the classics to popular melodies.

Stropping to Syncopation

2FC's Early Morning Joke

We all know the man who refused to drink soup while there was a ragtime number being played, but we did not realise the possibility of syncopation entering the intimate recesses of a listener's bathroom. 2FC tells us of a very good joke which recently occurred. A listener wrote saying that he did not appreciate hearing in the early morning—popular items. As a lover of good music he certainly thought that session should be devoted to more serious music. The 2FC announcer, who was, by the way, Laurence Halbert—whose cheery voice first thing in the morning is a tonic in itself—announced apologetically that as the syncopated numbers were seriously affecting this listener's stropping, he would for that morning give way to more sober music. The letters that have come into the Studio, as a result of this announcement, are most interesting. A body of listeners handed together at Leura, and wrote saying: "We are surprised anyone should be stropping at such a late hour as 7 a.m. That operation is well over and

done with as far as we are concerned by 7 o'clock and we want something bright and lively, so that we can go to work with a snap." It is very reassuring to a Broadcasting Stat to know that every item that goes out is certain of a number of listeners. Coming in at 7 a.m. is a pretty arduous job, and if it were not for the number of 'phone requests received by the 2FC announcer, he would feel he had the big end of the stick by having to get up so early, and now that winter approaches, shaving at 5.30 a.m. is not a particularly enticing prospect. So far the majority of listeners want popular music in the early morning, and it is hardly to be wondered at.

Mr. H. E. L. Turner, perhaps more widely known amongst the "hams" as engineer and owner of "Station 2NO," has resigned his position as production superintendent to David Jones Ltd. to take over the sales end of A. Beal Tritchett (Aust.) Ltd., Sydney, the Factory representatives for Mullard Valves and Ferranti Inter-valve Transformers.

How the Royal Visit will be Described

WHEN the Prince of Wales arrived in Australia, broadcasting was practically unknown, and what little was done was completely in the hands of experimenters. When the American Fleet arrived in 1925, its visit was very completely covered by 2FC. The station created a record by relaying from outside Sydney Heads a complete description of the arrival. Now with the coming of the Royal party, bustle and activity is seen on every side, and chatting with the Studio Manager of 2FC last week, we were able to gather something of the preparations being made for the coming festivities.

On March 23, 24 and 25 special programmes have been prepared so these can be received on board the "Renown." The wishes of 2FC in this respect were communicated to the authorities, and it is expected their programmes will be specially looked for on those evenings. Some "welcome" messages will be given from the Studio, and a fine array of artists have been engaged. Mr. Russ Garrling is writing several humorous sketches to include in the "Radio Revels" programme which he will direct on the night of the 23rd. On the evening of the 25th (the night before the "Renown" arrives in Sydney) a special song of welcome will be sung from the Studio by Mr. Alfred Cunningham, in association with the studio staff. Charles Lawrence, the well-known entertainer, has written special words for the occasion. The Leichhardt Band will play typical numbers, and every artist will enter into the spirit of the evening and work in imagination through the microphone to those on board the "Renown."

When the morning of Saturday, March 26, dawns, 2FC Announcer and mechanical staff, together with a brass band of over 35 members, will be well established on the deck of the Newcastle and Hunter River S.S. Company's vessel, s.s. "Gwydir," which proceeds through the Heads a little after 8 o'clock, so that a position may be taken up some miles out at sea for the broadcast description of the arrival. A special transmitting set will be placed on board by Mr. E. A. Burbury, Chief Engineer of 2FC, and the transmission will be picked up on a land line, on a given wave length, and sent through to the Studio, and from there it will go to Pennant Hills where it will be placed on the air. It is not expected any difficulty will arise in the relay, which will continue from 8 o'clock until the "Renown" drops anchor at Farm Cove. As the Royal pinnace leaves the battleship, and proceeds through the laneway of gally



FROM NEW ZEALAND comes items of interest in connection with the visit of Their Royal Highnesses the Duke and Duchess of York to Auckland. 1YA was on the air at 7:30 a.m. and transmitted an account of the entry of the Renown into Auckland harbour by means of a portable short wave transmitter, placed upon the deck-roofing of a ferry boat taking passengers to see the giant warship enter the harbour. Mr. J. M. Prentice was in charge and maintained a running fire of comment on what was happening, until a sudden rain storm caused the transmission to end. His humorous description of being driven to shelter under a tarpaulin in a frantic endeavour to save the costly apparatus from the effects of the rain gave a most unusual finish to the performance.

decorated craft to the landing stage at Farm Cove, a continuous broadcast description of the scene will be given, and carried through until about 11:30, when the Royal procession is timed to start.

Crossing over from that point, a description of the procession will be taken up from the strong post specially built at Farmer's corner, Market and George Streets, where a brass band and the Sydney Harmonic Choir of sixty voices, conducted by Mr. W. Bourne, will be stationed. From 11:30 until the time the procession actually passes this point, choruses will be sung, and the description will continue until "Close down" at 12:30 when the announcers and staff, "tired but happy," will have their well-earned lunch. Then the rest of the afternoon will be taken up with incidents or scenes in the city, sandwiched in between ordinary items.

Sunday, March 27, is a crowded day. The Duke and Duchess will attend St. Andrew's Cathedral and the service will be broadcast by 2FC. At the con-

clusion of this the transmission will then be taken from the Prince of Wales Hospital, Randwick, where a service will be given prior to the arrival of the Duke, who it is expected will deliver a short address at about 12:30. It is hoped the "Renown" Band will be heard in the afternoon.

On Monday, March 28, details of the Royal transmissions are rather vague. At the time of seeing 2FC the official programme has not been completed, but many items had been arranged for and others of course would come at a later date. There is the Lord Mayor's Ball in the Town Hall, as well as the Navy League's Ball at the Wentworth, and it is hoped that descriptions will be given from both those functions. From Heale's Salon, the Royal Sydney Apollo Club of eight voices will broadcast special items typical of the occasion. To hear these fine voices in songs of the Fleet and other items of this character will be quite inspiring.

So complete has been the attention paid to detail that even a talk on how to take close-up photographs of the Royal visitors and the "Renown" will be included in the Studio programme. On Tuesday, March 29, an opportunity will be taken of describing the reception from the Town Hall in the morning, and the Duke will be heard on the air when he replies to the toast at the luncheon by the Returned Soldiers' and Sailors' League to be held at the Wentworth.

In the afternoon there will be a description of the remarkable display by the school children at the Cricket Ground, and afterwards details will be given of the conferring of honors at the Sydney University. In the evening the Gala performance of "Tell Me More" will be broadcast from Her Majesty's Theatre.

Details of Wednesday, March 30, are not complete. Opportunities will be found, no doubt, of including many very interesting references to numerous activities. Several concerts will be held on board the "Renown" during the week after the arrival, and it is hoped that 2FC will be able to broadcast one or two of these. It is anticipated the night of 7th April will be given to this station. From the foregoing it will be seen a tremendous amount of detail goes hand in hand with such a programme, and the announcing and mechanical staff will be taxed to the utmost to carry out all they have to do.

The evening of March 31 (Thursday) will certainly be a unique one for listeners. The original idea was conceived in the Studio to broadcast

What Set Shall I Buy?

How to help your friend to buy a receiving set.

PROBABLY no question is more frequently asked than this. The prospective purchaser of a listening-in set, the owner of a crystal set or the possessor of an old-fashioned set which he desires to change, wants to know what type of set he should get. And the variety of types of sets, together with the claims made by their owners, leaves the questioner unsatisfied.

The wireless exhibitions at once assist and bewilder the doubting purchaser. There are so many types, so many fine-looking sets giving pleasing reproduction, and the statements of the dealers are not unreasonably so sincere, if not extravagant, that the seeker after information finds that he has received so much advice that he is in truth really puzzled.

No Simple Matter to Advise a Friend

All of us know the difficulty in answering a friend's simple question: "What set is the best one for me to get?" And which of us has not had the experience of suggesting that such and such a set was the one to buy, only to find subsequently that our advice has brought us trouble in explaining why the set was not satisfactory.

There are so many factors involved. It is not like buying a gramophone. It will perform just as well at home as in the shop, and at any home in any part of the State. But with a wireless set we must consider—among other things—the kind of aerial and earth erected; the class of soil in which the earth plate or connection is in contact; the prevalence of trees, hills or other possible sources of screening; the availability of otherwise of electric power for charging batteries (that will decide the type of valve to be used); the capabilities of the person or persons who will operate the set—and lastly, the services that our friend desires to receive. That last part is a fruitful source of disappointment.

The Sydney friend says in answer to a question that he wants 2FC only, that service will satisfy him. If he intends to stick to such a decision, the giving of advice is a simple matter. But we all know that sooner or later he will want to boast like his neighbor how he got 3LO and the other capital cities, and if his set will not bring in Interstate stations, he concludes that he has a "dud" set, and that our advice was faulty. Then we wonder why we endeavoured to save him several pounds in recommending

a set suitable for the local station only.

Good Sets are Getting Dearer.

It will surprise most people to learn that good sets are getting dearer. In America the average cost of a set in 1925 was 184 dollars—about £16, whereas in 1926, the average price was 90 dollars, about £18. The explanation is that the 3-valve set has become the most popular, the three-valve was most fashionable in 1925. It is expected that the 3-valve set will continue to be the standard set this year, and the only alteration will be some refinements in the component parts to improve the quality of the reproduction. It should be noted that the crystal set is rapidly falling out of favor in America, and this accounts for the high average price.

2FC Will Broadcast the Duke of York.

(Continued from previous page)

from the deck of the "Tingira" anchored in Rose Bay, a complete musical programme. The suggestion was made to Commander Garcia, and his enthusiasm was aroused, so that now the necessary permission is received an excellent programme will be given on the boat for the benefit of the audience and listeners generally. Old charities will be sung by a party of male voices arranged by Mr. Herbert Fry, amid the atmosphere of ryming captains, and the bosun piping on deck. The boys will go through their drill, and the performance of lowering the boats. Many novel features will be heard, and the whole programme will come under the direct influence of the Navy. Some of the best 2FC artists are available, including Harry Julius, who will have some comic cartoons for the boys.

Friday evening, April 1, will see the unique entertainment at the Showground on the occasion of the Scouts' Corroboree. There is also the bar-bosun as when several bulldocks will be roasted to the general delight of the onlookers. 2FC is supplying a Benes Band to give items, and a unique description of the whole scene will be given. The Australian Light Horse Band from Goulburn, which is making a special trip to Sydney to broadcast for 2FC, will in all probability be heard from the Showground on this occasion as well as from the Studio.

Some very far-reaching arrangements have been made at 4QG for

In England the average price should be lower, as many more crystal sets are in use. That is owing to the smaller area of the country and the number of stations scattered around the country, together with the added fact that the tuning difficulties are not so severe. For instance, in London there is only one station to tune in, and an ordinary crystal set can do that in London, though it would be useless in New York or Chicago.

In Australia the large majority of listeners are located in the capital cities, near the stations. Consequently, a listener in Melbourne with a fairly good crystal set, and who is satisfied with his telephone reception, can get 3LO easily. On the contrary, if the listener desires to receive Interstate stations as well, he should consider getting a good five-valve set, together with a matched loud-speaker. The aerial should be fairly snort, and the earth connection, if to a water pipe, should be well soldered or otherwise electrically efficient. The set should be a non-howler, and not expensive on batteries.

broadcasting the events which will take place during the visit to Brisbane of their Royal Highnesses the Duke and Duchess of York during April. The following is the programme which will be carried out by 4QG:—

Wednesday, April 6.—3.15 p.m.: Arrival of the Duke and Duchess. Civic reception in Albert Square. Music by combined choirs and massed bands.

Thursday, April 7.—11.30 a.m.: Public reception relayed from the Botanic Gardens. 8 p.m.: Vice-Regal Ball. Description of the Ballroom and of the arrival of the Duke and Duchess.

Friday, April 8.—2.30 p.m.: School children's sports relayed from Exhibition ground. 8 p.m.: Grand State Reception relayed from Parliament House. Musical programme in Legislative Assembly Chamber and on lawn.

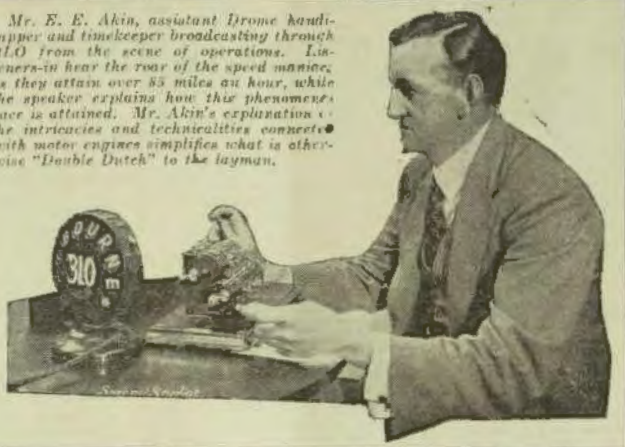
Saturday, April 9.—Afternoon functions at Beaudesert Show.

Monday, April 11.—8 p.m.: Grand Mayoral Reception at Newstead House. Singing by combined choirs, music by massed bands. Description of the Illuminations.

Tuesday, April 12.—5.30 p.m.: Returned Soldiers' Memorial functions relayed from Toowong Cemetery.

From the above programme it will easily be seen that steps have been taken to broadcast almost every important function which is to take place. Those who are sick or who are too far away to attend the functions will be able to see and picture each event just as if they were there.

Mr. E. E. Akin, assistant Drome hand-capper and timekeeper broadcasting through 3LO from the scene of operations. Listeners to hear the roar of the speed maniacs as they attain over 85 miles an hour, while the speaker explains how this phenomenal pace is attained. Mr. Akin's explanation of the intricacies and technicalities connected with motor engines simplifies what is otherwise "Double Dutch" to the layman.



A Way they have at 3LO, Melbourne

3LO, Melbourne, can snap up a hint quickly. I freely acknowledge it. A week or two ago I made a shy suggestion that travellers coming to this country should be encouraged to tell their impressions through the broadcasting station. Just a few days later the "Francia," with a full cargo of "chiefs takin' notes," came amongst us, brimful of ideas, filled with surprise at what they saw.

About 50 of them were put on a Resa train and shown a large section of Victoria. As soon as the manager heard of it, his mind leaped to the possibility of getting someone in the party to broadcast. He sent off wires addressed to the officer in charge of the train, addressed to various points where they were likely to pick up the party. In it he requested that someone capable should be asked to speak through 3LO and tell what they thought of Victoria.

It was obvious that they could not be brought to the Studio, so 3LO, with a largeness that takes no account of expense, asked the prospective broadcaster to name his own time and place, anywhere in Victoria except a mountain top, and arrangements would be made in accordance.

That was duly carried out and the message was sent from Albury, as the party passed through to Sydney. Furthermore, hearing that there was on board an individual who was an enthusiastic broadcaster from Pittsburgh, where Station KDKA is

situated, 3LO got into touch with Ross Skinner, the gentleman concerned, and asked him to broadcast a talk. There was but one day available, and Mr. Skinner was due at the Flemington races that afternoon as the guest of the V.R.C. That looked like a wash-out, but 3LO hates wash-outs. They fixed it with the gentlemen of the Press that they were to receive Mr. Skinner in their box, where apparatus would be waiting at any time in the afternoon, between the races. That done, the elusive Skinner captured, conveyed a close prisoner to the Press box, and there sat him down to a most interesting talk on what he thought of Melbourne, varied with some experiences on the air. It was jolly quick thinking, its sole object being to give subscribers something out of the way, so as to vary the usual programme.

THE SOFT ANSWER.

What does a director of programmes do when a critic writes to say that there is not enough church service, but far too much wrestling, boxing, jazz and dancing on the programmes? If he is unwise, he writes back a tart letter, pointing out that the correspondent is several sorts of an ass, and that he can't be bothered to argue the point with one so one-eyed. The result is that he loses a subscriber who tells everyone round about that he was forced to give up his set because really, you know, 3LO's programmes were getting too stupid.

The wise director does what I overheard one do the other day. I blew into his room just as he was dictating a letter. He waved me to a chair and carried on. I could not choose but hear what he was saying. The letter ran, so far as I heard it, about as follows:—

".....and I regret that you should find our programme last week so little to your liking. I am sending you the advance programmes for the forthcoming fortnight, and I would like you to glance over them and let me know immediately any comments you feel inclined to make. I would suggest, too, that you suggest a programme such as you and your friends would appreciate, and let me have it, when I will go into the matter and see if it is feasible to carry it out. I would value greatly any cooperation you could give us, having received many valuable suggestions from subscribers. Trusting that our future programmes," etc.

Now, isn't that better? That critic can feel nothing but pleasure in the reasonable way her criticism was received. If she does try to work out a week's programme, she is going to see for herself how difficult it is to make a triple daily programme that will minister to every taste.

The best of the whole thing is that the director meant every word of it. He does value suggestions; he will take them if feasible, and he understands enough of psychology to know that it is both easier and wiser to make a friend than an enemy.



Miss Marjorie Vere, the delightful young artist who is now broadcasting from Studio 3LO, and who till quite recently was one of the many clever and versatile entertainers associated with Miss Ada Reeve in her production of "Pins and Needles" at the Theatre Royal, has been on the stage since, at the age of 19, she sustained the "silent" part of *Kn-Ko*, the sword bearer in "Mikado."

THE WIRELESS EXHIBITION.

To my mind the Wireless Exhibition in Melbourne emphasized one fact in particular. That is that all designers are addressing themselves to the task of simplifying controls, rather than of inventing new methods. Instead of the delicate mechanism, to be used only by experts, and partaking of the nature of magic, wireless sets today have a single control, practically fool-proof. The sets themselves are far more selective, and devices for cutting out howling valves have made broadcasting much more comfortable and popular.

Then, too, a notable improvement has been made in the appearance of sets. The days when rough, ugly contraptions had to be apologized for have gone. Inexpensive, comparatively, sets, enclosed in beautifully wrought cases, with hidden aeriols, are to be bought everywhere, and form fine additions to the furnishings of a room.

In a word, radio sets have been given the beauty and the simplicity and durability of gramophones. They are being made to suit every pocket. Now there will be no excuse for any householder to be without this splendid means of passing time that is hanging heavy.

THE DUKE MAY SPEAK.

Machinery is already in motion to bring strong pressure to bear on the

Duke and Duchess to speak over 3LO. Before these words are printed the thing may have been definitely arranged.

It will be a historic occasion, if it can be brought off. It is known that the Governor-General is an enthusiast where broadcasting is concerned. When he was in the wilds of Queensland he made special arrangements with 3LO to have messages broadcast to reach him, and he wired his appreciation. That taught him the value of broadcasting in the far outback. He knows something of the loneliness of these settlers, and I feel sure that the Duke and Duchess, while staying with him, will learn something of what it means to be beyond the reach of a human voice except the three or four with whom life is carried on.

All the chances point to the likelihood of success in the venture on which 3LO is engaged.

TWELVE MINUTES after the referee's decision in Philadelphia that Gene Tunney was the new World's Heavyweight Boxing Champion, the presses of the "Rand Daily Mail" in Johannesburg were printing papers containing the news. 2XAF, WGY's short-wave little sister, bridged the distance between the two continents. London newspapers published summaries of the fight as heard by short-wave listeners.

A SKETCH that was performed at 3LO bore the title "Ermins, Limited." There are a good many people who bear titles to whom the same remark might apply.

POST DX RECEIVER IN U.S.

Of the many reports of reception received by 2FC this year perhaps the most complimentary is that of Mr. J. R. Chase, 1827 Grasmere Road, East Cleveland, Ohio, U.S.A., the winner of the U.S. National Silver Cup for the best reception. Mr. Chase writes as follows:—

You will no doubt recall having heard from me last year regarding reception of your transmissions, and it might interest you to know that I have heard you several times this Fall and winter. An enclosing item from My Company's magazine, which will show you how your station was instrumental in my being awarded the "Grand Prize."

I have since received a National Prize in the form of a Silver Cup for the best reception of any one, and I feel that you will join me in my good luck, inasmuch as your station played a most prominent part in this award.

I would appreciate it very much if you could send me a future schedule of your periods of transmission, or perhaps you are going on the air with some special programme, and if I knew just when to look for you, it would be a great help.

I am now testing with an 18 tube receiver, quite capable of picking up your signals and amplifying them for "Loud-speakers."

I am, yours truly,

J. R. CHASE.

1827 Grasmere Road,
East Cleveland, Ohio, U.S.A.



3LO's temporary studio at the Wireless Exhibition, which was an outstanding success. Unhindered in delightfully restful tones of gossip, merriment and blarney, it speedily became a popular rendezvous for visitors, who enjoyed a much appreciated rest, whilst listening to the items being broadcast.

The World's Flyers carried Burgess.

The Safety Valve

A department in which readers are invited to relieve their feelings by commendation or condemnation of broadcasting stations and their programmes. All letters must be addressed to "The Safety Valve," Wireless Weekly, 51 Castlereagh St., Sydney.



THE LOWBROW LOSES!

Dear Sir,—I protest that the lowbrow listener does not win. If this were true I could predict a sad future for the standard of music in Australia, for the music produced by any race or people has a potent effect upon its life, nationally as well as individually. But I personally do not give credence to the opinion that the majority of radio enthusiasts will not listen to classical music and hope for "the best, believing that the best is not too good for Australia."

In presenting a musical banquet to listeners in, were I the chef, I hope I should be tolerant enough to present sufficient variety to suit all tastes, something to tempt the palate, represented by the lighter types of music, but not forgetting as a later course, the more nourishing and satisfying food which is after all the most sustaining, and promotes growth and well being. Each of its kind should be good, and served well.

I feel sympathy with the listener-in who "tuned on a trilling soprano at her topmost note and entered the region of crashes, crackles and whistles." I hope I should do the same. The unfortunate effect may be produced by a lack of proper vocal training, and not to the song she is trying to sing. It is simply not being served properly. I think there are few people who really dislike good music, and many who say they do not understand it will fall under the sensual spell of a beautiful voice singing Rachmaninoff, a pianist's interpretation of Debussy, or a violinist's really beautiful playing of Beethoven. There is a lot in the serving.

In the meantime where is the audience who flocked to hear Beethoven's great Mass in D under the baton of Verbruggen a few years ago? Where are the people who flocked in thousands to hear Kreisler play the works of the great masters? And where are the men and women who listened spell bound when Chalopin came, and when Bachhaus played the music of Beethoven, Chopin, Schumann and Brahms? Do you not represent a small proportion at least of the listeners-in, and if so will you not speak your mind at this time?

Yours, etc.,
EVELYN GRIEG.

Station 2FC.

BLIND MAN'S GRATITUDE.

Dear Sir,—I am totally blind, and have great pleasure in thanking 2FC for the great musical and elocutionary treat given to all who were present at the concert in the hall of the Sydney Industrial Blind Institution. You may judge how much we enjoyed the entertainment when I tell you that the time ran away so quickly that I was astonished to find that it was 10.15 before the entertainment came to a close, whereas I thought it would be only about 9.45. I believe that everyone was glad to be present, and we are all correspondingly thankful to those who gave us the evening's enjoyment. We are hoping that we may have a similar kindness shown to us on some future occasion.

Yours, etc.,
JAMES H. TERRAS.

Epping.

PRAISE FROM N.Z.

Dear Sir,—Being a constant receiver of 2FC's studio concerts I would like to congratulate the station on the most enjoyable evenings I spend in listening to its excellent programmes. I am sure that nobody could wish for better concerts, and as they are coming through so well now, I am looking for even better programmes in the winter.

Yours, etc.,
A. K. WOOLLEY.

Christchurch, N.Z.

PIRATES ARE FINED.

Dear Sir,—Vernior Dial ("W.W." 4/3/27) talks of pirates of the air, and suggests that dealers take out licences for their clients. I think the dealer has quite enough to look after his own licence, since he has to pay £5 for the privilege of selling sets, to gain a few pounds. Most dealers give free service for some time in coaching clients to handle their sets.

I presume, by the tone of Vernior Dial's letter, that he is not a dealer and the first trouble his set gives he asks for his dealer's assistance and expects service free. I would remind him that heavy fines have been and are still being paid by those not complying with the Wireless and Telegraph Act.

Yours, etc.,
LICENSED DEALER.

Walgett.

ATTENTION, MR. T. J. SWAIN.

Dear Sir,—The poisonous mixture of musical subjects (naively referred to as masterpieces covering four pages of foolscap) designed to please the hotel-keeper, the cafe proprietor, the wireless enthusiast, the serious-minded aged lady, the hospital patient, the bushman, flapper, student, dancer, dreamer, etc., which Mr. Thomas J. Swain forwarded to each broadcasting company must have driven many studio managers to the verge of becoming flagellomaniacs with a desire to scourge listeners-in generally. Were any one of them foolish enough to broadcast his mixture it was surely with the object of giving Mr. Swain a taste of his own medicine in the hope that he would expire then and there.

No better illustration could have been given to my letter ("W.W." 25/2/27). It is such people as Mr. Swain, possessing just enough musical knowledge to make their opinion seem worth considering, that lead our broadcasting managers to question their own judgment under the misapprehension that these people are representative listeners-in.

Yours, etc.,
PAUL JENNINGS.

Darlinghurst.

SPEEDWAY UNINTERESTING.

Dear Sir,—Not two per cent. of country listeners are interested in Speedway doings, and those that do would be satisfied to hear the result announced without waste of time over descriptions, mostly poor. A farmer, when home has to rise too early to be able to listen-in for long, so when Saturday night comes round and he gets nothing but Speedway, he is disappointed.

I have a dealer friend who recently went some miles out of town to give a demonstration. Static spoilt 3L0, and 2FC, 2BL, and 4QG poured out Speedway for 75 per cent. of the time. Not very encouraging to the prospective buyer, was it? I had some friends over myself to listen to the Band Contest, and heard more motor bikes than hands. As a bandsman I was particularly disappointed that night.

Yours, etc.,
J.G.P.

Murwillumbah.

IT'S ALL IN THE AIR

Coming Features in the Broadcasting Programs



Herbert Walton,
J. C. Williamson,
Comedian, whose
fun will soon be
missed by 2FC
listeners.

THE QUEENSLAND WORKERS' Educational Association Tutorial classes in music will be held at 4QG this year in novel circumstances. They will be conducted by Mr. George Sampson, F.R.C.O., but instead of the classes meeting in the W. K. A. rooms, the students will gather in the Reception Hall at 4QG where the evening's instruction will be given. A microphone will, however, be installed in the hall and the whole of the proceedings at the classes will be broadcast.

This arrangement will serve two purposes. Those students who desire to attend in the same way as in the past will be able to listen in and follow the lectures.

The classes will commence on Friday, April 1, and except for one or two short breaks will be held each Friday night. They will commence at a quarter to eight and will last until about nine o'clock. Various lectures given at the tutorial classes will be illustrated by chamber music played by trios and quartettes arranged and conducted by Mr. George Sampson and composed of Brisbane's leading instrumentalists.

HASTINGS AND ADAIR: One of the most delightful "duos" that we have heard for some time is that given by the talented duo known to listeners as Hastings and Adair, who are, at present, broadcasting from 3LO. There seems to be no limit to their versatility, and whether their contribution to the programme is a song, a tuneless solo on the one-stringed fiddle, or a few moments of refreshingly amusing patter, it is safe to say it will meet with the entire approval of their audience, both in the Studio, and at "the other end of the wire."

MISS MARIE LE VARRE: There is an arresting quality about the voice of Marie le Varre, the talented comedienne, who has immediately sung herself into favor via 3LO, that somehow "grips" you, and leaves you wondering. Her contribution to the programme is easily to the liking of the Studio audience who take advantage of the invitation of 3LO.

MR. HARRY GOULD: In spite of the fact that Harry Gould has but recently made his bow before the microphone in 3LO, he has, by means of his entirely original brand of humor, established himself a firm favorite with listeners. In private life, he is one of those rare people "a host in himself"—can play half a dozen instruments, sing a rousing song, and make the most feeble joke an absolute riot of mirth.

HAIL ST. PATRICK: Any loyal Irishman will tell you that the bagpipes originated in the Emerald Isle, and whether he be right or wrong, it is at least a fact that the pipes are Ireland's national instrument. What could then be more appropriate than to have an Irish recital on the eve of St. Patrick's Day? On March 16, 3LO, Melbourne, will broadcast the Irish Pipes Band, and a general Celtic programme will be presented. The popular Studio Orchestra will also play appropriate numbers.

MISS ELSIE BRADSHAW: As everyone knows, a good pianist is "more than half the battle" and, this being the case, much of the success of the 3LO Children's Hour is due to the fact that Miss Elsie Bradshaw, the charming and delightful accompanist for this session, has made a special study of Children's Songs, and how to play them. Miss Bradshaw has been with the Studio for some time now—she sometimes even sings little songs to the kiddies herself—and is amply rewarded by the letters that are waiting for her every night at 3LO.

JONES AND RAINE: Percy Jones, the "Jones" portion of the clever "Jones and Raine" Duo, heard from 3LO, is well styled the Welsh Rarabit, for he combines a rare musical talent with some very excellent comedy. However, this is not surprising when one considers the fact that he comes from Wales, and at a very early age was conducting choirs, and adjudicating at festivals, to say nothing of appearing as a piano soloist at the mature age of seven.

4QG LISTENERS should find a programme of exceptional interest in the unique entertainment to be given by the Curlew Entertainers on Monday, March 31. This fine combination of society entertainers, under the direction of Mr. Reg. Yorston, promises to be amongst the most popular broadcasters from that station.

REV. RAWARD LEAVES FOR ENGLAND: A well-known voice will be missed by listeners when Rev. F. H. Raward goes for his trip to England next month. His final service from the Lyceum will be broadcast by 2FC. At the present time he is giving a series of talks on "The Art of Public Speaking" and has just concluded a series on nature studies.

DISTANT LISTENERS no doubt often wonder why the whistle of an engine becomes apparent at times in the band music 4QG relays from Wickham Park on Sunday nights. The Park is situated close to a tunnel, on the railway running between Roma St. and Central Station, and trains always whistle before entering this tunnel. Sometimes during intervals between band items, a train might pass by and not only is the whistle of the engine audible, but the rumble of the carriage wheels on the lines can be heard.



John Lennon, world-famous fustian, whose recitals are among the best of the 2FC features.

SHOCKS FROM AERIALS.

A CORRESPONDENT, signing himself "J.R. (Ashfield)," wrote to the Technical Editor recently telling of a peculiar buzzing sound and a large spark yielding an electric shock when the aerial was touched. Many others have since written of similar experiences. This letter, from Mr. Soraghan, is very interesting and explains this phenomenon as follows:

In normal fine weather the potential on an ordinary aerial is about 600 to 800 volts. This is not sufficient to cause a disturbance in a wireless receiving set. Now, during an electrical storm, the potential gradient may be 100 times normal and the atmosphere contains much more electricity, the charge on the aerial will be considerable and will leak to earth in the receiving set. If the aerial be disconnected from the set a person holding the free end may receive a very severe shock, as I have seen a continuous spark nearly a quarter of an inch long taking place across an earth switch. If the set is left connected a humming note is produced varying in pitch according to the rate at which the charge leaks from the aerial. This buzzing will drown out the strongest signals.

The above atmospheric electric phenomena is not very noticeable with low aerials, but on an aerial sixty feet high or thereabouts it is very pronounced. It generally commences just before, or during a shower of rain (or hail), and as a rule only lasts a few minutes, unless the atmosphere is very highly charged in the immediate vicinity, when it may last an hour or so.

Some weeks ago, when a Westerly depression with unsettled weather conditions were operating over the State, it was very pronounced on several occasions. The word static is much more applicable to this form of electrical disturbance than it is to the crackling sounds produced in a receiver, by ordinary lightning discharge. However, there is little use to worry, as it is a fairly rare occurrence, and a lightning arrester with a very small air gap will effectively protect the set.

Hoping the above may be of some interest,

Yours, etc.,

D. SORAGHAN.

Rose Bay.

WHEN constructing a wireless set, the thing to remember is that it is the relative connections which need to be got right.—Daily paper.

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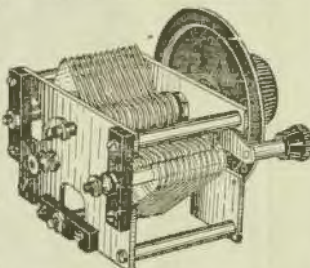
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Fixed Detectors	0 5 0	1 M.F. By Pass Condensers: Dribbler	0 6 6
A. Battery Switches: Push-Pull Type	0 1 3	Radio Tubing: Diameter, 2in., 8d. In.; 3in., 0 0 10	0 0 10
Tiffany Battery Switches: Push-Pull	0 1 9	Buswire: In straight 2ft. lengths, Round, 11d. doz.; Square, per doz.	0 0 10
Pilot Vernier Dials: Genuine Bakelite	0 6 9	All Goods are Covered by a Money Back Guarantee to Country Customers.	
Emcco Vernier Dials: Black Metal	0 6 9	We Pay Carriage on All Orders of 10/- and over, except on Batteries, Loudspeakers, Cabinets and Value Payable Post Parcels.	
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A Useful Testing Instrument

The faultfinding articles which recently appeared in W.W. have been well received judging by the many letters we have had. Following on these we give below the constructional details of an inexpensive testing instrument which will be found an invaluable adjunct to the equipment of any set owner

A TESTING instrument is a great advantage to every listener for many and varied are its uses.

For faultfinding, it is an asset. It will tell the state of the B. batteries, it will prove the lack of or the continuity of a circuit, it will point out the efficacy of a fixed or variable condenser, in fact, it will be found most useful in many spheres.

Now it stands to reason that if such an instrument is to be of use to all people it must be reasonably cheap to construct. Well, it is! Read on and prove it for yourself.

Nearly everyone possesses a meter of some description. For our purpose in this unit a double reading voltmeter, that is a voltmeter which has two scales, one reading up to 6 or 8 or 10 volts, for the A. battery, and one reading up to 80 or 100 volts for B. battery readings. Several of these types are available from our advertisers, it is therefore up to the prospective constructor to choose one to suit his pocket. We don't intend to bind you to any one brand. The rest of the apparatus consists of an ordinary flashlight battery of 4½ volts, 5 nickel-plated terminals, a yard of flexible wire and an old cigar box. The whole should not cost more than 15/- altogether—cheap enough.

Of course, a much more elaborate form of testing unit may be devised, but for our purpose at the present let us be satisfied with this simple arrangement. It will take the place of the well known form of a G. battery, and a pair of phones in series as was illustrated in the faultfinding articles already mentioned.

Looking at the illustration with this article, the voltmeter and its attendant terminals, case and flex leads, may be seen. As may be gathered, it is quite compact, the whole measuring three and three-quarter inches high by three inches wide by two inches deep. Of course, this size must be governed by the sizes of the meter (depth) and the flashlight battery. Actually, an Everready 4½ volt, No. 1000, was used in our instrument, and this battery measures three and a quarter inches

by two and five-eighths inches by three-quarters of an inch. These are the overall dimensions of the No. 1000 refills.

To construct this unit make the box for containing it. As previously mentioned, the timber from a cigar box is of great use here, and is easy to handle. Firstly, carefully remove the hinges from the lid and box, and leave on the one side for use later on. Now mark off two pieces three and three-quarter inches long by two inches wide, and cut them out. These are for the sides. Also cut out two more pieces three and five-eighths inches by two and nine-sixteenths inches (back and front) and two more pieces two and nine-sixteenths by two inches (top and bottom).

Sandpaper the surfaces smoothly, using coarse sandpaper to remove any brand marks that may mar the final appearance. Fine sandpaper will give a nice smooth finish after using the coarse.

Now, from one of the largest pieces, that is, the face piece, cut out a hole sufficiently big enough to allow the face of the meter to fit snugly. (See illustration.) Most

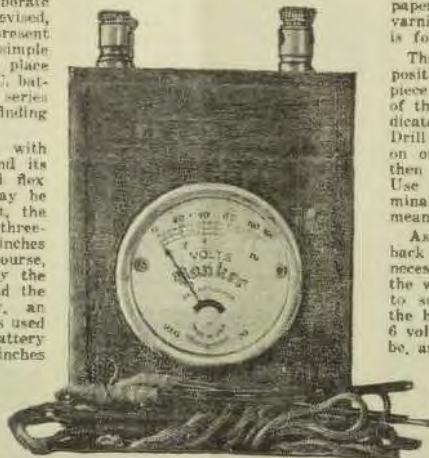
double reading meters have two small projections through the bottom of the meter for making contact with the two different types of batteries, that is, the A. and B. batteries. On the top is the other connection with usually a short length of flexible wire attached. These connections are placed midway between the back and front of the meter, so that when the hole is cut in the timber, these connections are kept behind the panel or front of box. These pins also prevent the meter from falling out of the front of the box.

Having satisfied yourself that this meter fits correctly, start now to French polish or shellac each piece of wood. As cigar boxes are made of cedar, it devolves upon the constructor to choose his finish. If French polishing is desired, then the wood should be filled with one of the many fillers known to French polishers to-day, either plaster of paris or terebene and clay. There are others which may appeal to the individual and accordingly the choice is left to you. Of course, if you would rather treat the wood to a coat of shellac varnish, do so by all means. Perhaps more than one coat is desirable.

If the wood has been well sandpapered, even two coats of shellac varnish will prove sufficient, but this is for you to decide.

The next job is to mark off the positions of the terminals on that piece of cedar selected for the top of the box. The wiring diagram indicates just where these should go. Drill the required five holes, three on one side and two on the other, then insert the terminals in position. Use the ordinary nickel-plated terminals and secure in position by means of the nut provided with each.

Assemble the box, hinging the back so that it may be opened when necessary. Now wire up as shown in the wiring diagram. It is necessary to solder a connection on stud at the bottom of the voltmeter marked 6 volts or 10 volts, as the case may be, and then join or solder it to the negative spring of the battery, and from thence terminal 2. The 100 volt side of the meter is joined to terminal 3. The top flexible connec-



The front view of the testing instrument is seen on the right.

Ask any Radio Engineer about Burgess.

tion of the meter is taken to terminal 1, and also to terminal 5. Terminal 4 is now joined to the positive spring of the battery. This completes the wiring. The whole should now be assembled in the box and is ready for use with the addition of two short lengths of flex for leads. These flex leads should be about eighteen inches long. One end of each should have two inches of busbar soldered to it, this busbar being covered to within 1 in. inch with some insulating material, such as paghetti tubing. The other ends are kept from fraying by soldering a small lug to each.

Now for some of its uses. Should you doubt a transformer, then test the windings of both primary and secondary for continuity. Connect the flexible leads to terminals 4 and 5, to the other ends (busbar ends) across the transformer to be tested. Allow one tip to rest on the P. terminal end of the transformer, and touch the B. terminal with the other tip, and if the transformer is in good order, the voltmeter will show a reading. The needle will swing across the dial, showing that the circuit is in perfect condition. With the same tip still on P. of the transformer, touch the remaining tip on the case of the transformer and if a reading is shown on the voltmeter, it indicates that the transformer has broken down in insulation between the primary winding and the case. If again a reading is displayed when this remaining lead on either of the secondary terminals of the transformer, it is a case of break down between windings. If the transformer is proved defective, it is always advisable to replace it with a new one, as transformers are very difficult to repair.

If a double check is required, then it is an easy matter to provide it. Hook the phones on to terminals 1 and 2 and as you test as described above, if continuity exists, besides the voltmeter reading there will also be heard a click in the phones. Remember, if a click is heard when testing the primary of a transformer, it indicates that the transformer is quite in order. The absence of a click or meter reading is a sure sign that the transformer is broken down. But remember, you should not get a click if the case is touched with one lead with the other lead connected to any terminal of the article being tested.

Again, it is very useful to test the latest valves, that is, those valves which are known as cold emitters and which do light up. It is invariably difficult to learn if this type of valve is O.K.

Often one is in doubt regarding a valve, so test for continuity of the filament in the orthodox manner, i.e., phones on terminals 1 and 2 and

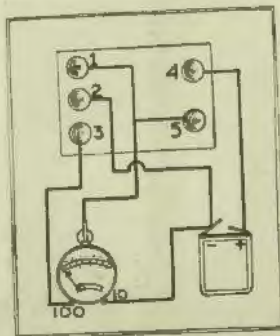
leads on 4 and 5. Tip the leads across the filament pins of the doubtful valve which, if intact in the filament, will register on the phones and also on the meter.

Condensers of all types, fixed and variable, may be tested. With leads on 4 and 5 tip the two sides of the condenser which, if broken down, will register on the meter. If, of course, no meter reading is given you may depend on the correctness of the condenser. Many other uses will be found for this interesting and useful instrument, and they will reveal themselves to you in time.

To use the instrument as a straight out voltmeter for reading the A battery connect leads to 1 and 2 or 5 and 2 and connect tips across the A battery and a meter reading will result. Remember, don't try to read the B battery on these terminals. To obtain an indication of the state of the B battery connect leads to 1 and 3 or 5 and 3 and test in the usual manner. Always test on the set. This will give you good indication of the voltage in the B battery. Again never try to read an A battery with the B battery connections. The meter won't show anything.

The instrument may be used as a straight out C battery by connecting the terminals 2 and 4 to the set. This is very handy indeed, as an emergency C battery, for grid bias purpose is very useful. Terminal 2 is the negative terminal.

As time goes on the refill will have to be renewed, but this is soon determined by connecting the leads to 4 and 5 and tipping one end on the other. This reads the state of the refill inside.



The wiring diagram.

The other evening the writer had occasion to seek a fault in a Marvel Reflex constructed by a friend. This friend in question was present when the original Marvel Reflex was tested out, and the surprising results created in his mind a desire to build one like it.

He did so, but absolutely no signals resulted. Reading over the Fault-finding Articles recently appearing in this paper he checked over all his work, but to no avail. Not wishing to be beat he result it with the same effect—no results. The writer was called upon to locate the trouble and the testing instrument proved of inestimable value. The circuit was proved alright, also the valves and batteries. The audio transformer stood up to test, as did every component used. A most mysterious affair, indeed.

Finally to illustrate a point, the two leads from the instrument (connected to 4 and 5) were touched on the former on which one of the coils was wound. Straight away the meter swung over. A closer examination was resorted to, and it was found that the coils were wound on a cardboard former which was coated with a black substance resembling Dilecto or Radion. This material was the cause of the trouble, and when the coils were transferred to even dry cardboard the desired results were obtained.

The thought occurred to the writer that perhaps other readers may have struck similar trouble, so remember and test the cardboard, or even the wooden panel, if one is ever used, with this testing instrument. Many more nights' sleep will result.

BROADCAST OF THE FUTURE is exemplified in the following extract from the "English Review":—"Such a celestial broadcast will be a judicious assortment of the grave and gay, the educational, moral and religious, and what is called rather vaguely the economic. If wireless annihilates space it had better do it effectively; and to do it effectively it must operate with impartiality and judgment in many spheres."

IN ORDER to remove the interference caused to radio reception by radiating receivers a department of the British Government is arranging for an automobile to be fitted with a sensitive radio receiver and direction finder. It is intended to send this automobile into those areas whence this form of interference has been reported. Offending receivers will be examined and their re-radiating properties cured.

TO TUNE OR NOT TO TUNE?

That is the question which confounds many listeners in. In this article, the writer explains the whole art of tuning, wherein lies the secret of good reception

This is indeed a burning question. Instancing this fact lies in some letters which we receive from readers who have built one or other of the sets described from time to time in our paper. One letter reads, "I have built the receiver as described exactly, but can't get inter-State results." The next letter opened reads, "I have constructed the receiver from 'Wireless Weekly,' and am pleased to advise you that I have received every inter-State station excepting GWF," and so on! Both reports on a similar receiver, and located within half a mile air line from one another.

Now how is this accounted for? Perhaps one constructor hasn't followed out the details in the constructional article; on the other hand the writer knows of instances where the receivers have been faithfully constructed, and yet one man does well, and the other does not.

Investigating one of these cases the writer visited the homes of two readers and with surprising results. Both receivers were well constructed—Harkness Reflexes—and were a credit to the builders. One man could bring in Melbourne and Brisbane, whereas the other within 200 yards away could only get the local stations.

Tested on the air both sets yielded the same results. Both were capable of producing the inter-State stations mentioned, one equally as good as the other. The owner of the set which gave the inter-State results originally was able to repeat the process on the friend's set. Why couldn't his

friend do it in the first place, one might well ask?

The reason is obvious. One person didn't know how to tune. It is a known fact that everyone is not able to tune a set. Why, goodness only knows. It is our object to discuss tuning in this article—tuning from its many viewpoints.

It is recognised that the advent of the one control receiver reduces the science of tuning to the keynote of simplicity itself. But just how many people possess one control tuning receiver.

That most people possess receivers of at least two or more tuning controls is true. So let us appeal to them. With the average receiver up to three valves there is invariably one control for tuning, and one for the control of reaction.

Now, what is reaction? Suppose we try and explain without reverting to too many technical terms.

Reaction consists of a method whereby the signals received at an aerial, tuned in and amplified by a valve, are fed back to the aerial circuit in order to give enormous "boosting" effect to the signals already present in an aerial.

There are several different methods of obtaining reaction, the most popular being the orthodox form, that of coupling a coil in the plate circuit of a detector valve, to the aerial tuner. The usual form of P1 circuit has two coils, and one condenser. The condenser tunes the aerial or grid coil, which is connected direct to the aerial, and the reaction takes the form of another coil, which is coupled

to the grid coil in some form or other. It may be that the set owner has a vario coupler which comprises a grid coil tuned by a variable condenser, the reaction taking the form of a rotor with relation to the grid coil.

Tuning in this instance is easily accomplished. Firstly leave the rotor angles to the grid coil windings, and tune with the variable condenser. When the desired station is received, even faintly, the signal strength may be increased by bringing the windings of the rotor into the same running direction as the grid coil. If increased too far, the receiver will develop reaction overlap. To determine this, notice that when the reaction control is slowly rotated, signals will first become stronger up to a certain point, after which their strength starts to decrease until a loud "pop" is heard in the phones or loud speaker, followed by a hissing sound which is called oscillation.

Now this applies in many receivers. It also applies where two honeycomb coils are employed instead of a vario-coupler. One honeycomb or spider web coil, for that matter, is timed with a variable condenser, the other acting as reaction, which is brought into prominence by bringing one coil—the reaction coil—closer to the grid or aerial coil.

Again the well-known three coil circuit is simply the P1 circuit with the aerial loosely coupled to the secondary circuit in order to produce a certain amount of selectivity—still the reaction remains the same.

New reaction judiciously used is an advantage. If overlap is produced it is a disadvantage. Remember that now! One advantage is that greater selectivity is obtained—that is, one or two stations transmitting on wave lengths differing by a few metres, can be tuned in without interference from one another. This takes some handling, so read on.

To tune the ordinary three coil circuit, let us first of all analyse it. We have the aerial tuning coil which is loosely coupled to the secondary coil, and a third coil also coupled to the secondary coil. The secondary coil is the centre coil, and is fixed, whereas the aerial coil is to one side, usually the left side, and is movable. The reaction coil is on the opposite side of the secondary coil, and is also movable. Always is the secondary coil tuned with a variable condenser, and sometimes the primary and reaction coils are also tuned with a variable condenser although not strictly necessary.

To tune this receiver for local stations is very simple, but often when seeking the inter-State stations the reaction is a bit tricky to handle. Let us presume that only the secondary coil is tuned, the aerial or primary coil untuned being known as aperiodic.

To tune, firstly the reaction coil should be kept right back against the panel, that is at an angle of 90 degrees to the secondary coil, and the aerial coil should be kept at an angle of 45 degrees to the secondary coil.

Now slowly turn the dial of the variable condenser. If a vernier dial is employed, this slowness of motion should be assured, but if one of the usual 5-inch or 4-inch diameter dials are on the condenser, this slowness necessary is seldom achieved by grasping the knob in the fingers. Better it is to spread the fingers along the edge of the dial itself, as shown in the illustrations. The tips of the fingers will rub on the panel, also thus acting as a brake and preventing the condenser from being turned too quickly.

Keeping this in mind locate the station by turning the dial until the loudest signal results. Use the right hand for this purpose. Now with the left hand, gradually bring the aerial or primary coil a little closer to the secondary. Bring it as close as is commensurate with the loudest signal. If too close, sometimes the volume decreases, but that of course depends on the size of coil used. Another slight readjustment of the condenser will increase the signal strength just a fraction more, but

when the reaction coil is brought closer to the secondary, up will jump the strength of signals again. But, and listen to this, if this reaction or tickler coil is brought too close to the secondary coil, the state of affairs already described, as reaction overlap will set in, thus causing mushiness of signals to yourself, and interference to your neighbours. To bring your reaction just as close as is possible without the hissing sound being present, and a final fractional adjustment of your condenser will tune the set nicely.

If perhaps the aerial coil is tuned with a variable condenser, use this condenser to increase the signal strength, but in the standard three coil receiver, the adjustment of the aerial condenser is not nearly so critical as is the secondary condenser.

If some form of variocoupler is used instead of honeycomb coils the secondary condenser should be tuned in an exactly similar manner as described, but the reaction is seldom tuned with a variable condenser. The reaction or regeneration coil takes the form of a coil of wire wound on a revolving drum either inside or on the top of the secondary winding. When starting to tune, this rotor should be placed in such a position that the wire wound on it lies at right angles to the secondary coil and after bringing in the local station, this rotor should be turned until the maximum CLEAR signals are heard. In some instances if the rotor is turned one way the signals decrease in strength, so turn the other way, and up comes the volume.

Now in variocouplers there should be three separate windings if selectivity is desired. When two or more stations are heard at the one time it is a sure indication that the receiver is not sufficiently selective for the locality. So look and see that you have a separate aerial winding, or a loosely coupled aerial coil, preferably wound on the same tube as is the secondary. This being present does give a little more selectivity, as does the third honeycomb coil on a honeycomb coil receiver.

Inter-State stations are a little more difficult to tune. It is necessary for the listener to know his receiver thoroughly before he tackles inter-State reception. He should know that 3LO Melbourne is just 18 metres away from 2BL Sydney, consequently only a very slight readjustment of the secondary condenser and perhaps the reaction coil is required to bring in this station. Perhaps when it is received, there may be a background of the local station, so remember that

a minute alteration of the primary coil will eliminate the undesirable station. Of course it must be understood that if the listener is living close to a high power broadcasting station, a certain amount of shock excitation is experienced, which will make it difficult to eliminate the local station. In such instances, some ultra-selective receiver is required.

Before leaving the subject of straight out detector circuits, let us consider another form of reaction, that popular system known as the Reinartz method. This consists of a coil coming from the plate of the detector valve through a variable condenser, and then to the bottom of the secondary coil. It is immaterial if this condenser comes before or after the coil.

This method differs from the usual Armstrong system, inasmuch as the regeneration effect is not produced so suddenly or fiercely. A much smoother effect is the result, which means easier tuning. The manner of going about tuning is just the same as with the Armstrong method only this time a second condenser has to be manipulated. This condenser dial should also be gripped in the manner described, and the moving plates brought gradually into mesh with the fixed plates. As this is taking place an increase in volume is perceptible, but if too much condenser is brought into play a state of oscillation is brought about with the usual effects.

Sometimes it happens when the receiver is in oscillation a whistle is heard falling in cadence to a low growl, then silent, then up again in pitch, to a shrill scream. This effect takes place when turning the condenser dials, and is known as a carrier wave. To receive the station clearly the endeavour should be to get into the silent point, that is, right at the bottom of the two whistles. To further explain this, just imagine two hills with a valley in between and a creek running at the bottom of the valley. Imagine again that you roll a wheel from the top of one hill into the creek, and up to the top of the next hill. This wheel emits a high shriek or high pitched whistle, the higher up it goes, and of course the converse is true, the lower down it rolls, the lower will be the pitch or cadence of the whistle. In the creek of course, the whistle is silent, that is, it is silent.

Remember this when SLOWLY turning your condenser dials, and always strive to get into the creek so to speak, into the silent point. That's where the clear music from the station lies. If you are on the edge of the creek or on the edge of the low pitched growlings poorly

Hints for the Accumulator B. Battery

modulated signals result—mushy, distorted—no good to you or no good to your friend next door, as when your receiver is in a state of oscillation—which it is in this instance—be has to put up with a moaning howl throughout all his reception. So don't oscillate—be a good radio neighbour.

Instanting this interfering whistle which your neighbour hears when your receiver is in a state of oscillation, you yourself have heard that howl over and over again. If your neighbour is oscillating, and if he turns his condenser dials quickly a shrill canary like chirp is heard when he crosses the wave length of the station you are listening to. When you rotate your dials quickly you give the same effect to your neighbour, and incidentally miss the station sought. To Golden Rule in Tuning (No. 1) turn your condenser dials slowly.

Again, there are times when a listener can't stop his receiver from oscillating. This is shameful and there are many ways of doing so. If honeycomb coils are the inductances used, then swing away the reaction coil from the secondary coil. If this doesn't stop it then lower the rheostat controlling the filament of the detector valve. This latter movement invariably effects a cure, but occasionally a different sized grid leak is a sure aid. But see that the reaction coil is not too big—try a smaller one.

In the case where the coils are wound on a tube behind the panel and the reaction coil is fixed in distance from the secondary, to stop incessant oscillation, rewind the reaction position a little further away from the secondary and take off a few turns of wire. Then try again, watching the rheostat all the time.

There are times when too much plate voltage is applied to the plate of a detector valve. This is liable to cause continuous oscillation, and is to be avoided. The whole secret of tuning lies in getting everything equally balanced and running smoothly, and only practice and a good knowledge of the receiver will allow this.

This article has dealt with a straight out detector valve, one that is not preceded with radio frequency in any of its forms, but as the subject is so vast is in our intention to continue it next week, dealing with radio frequency and also describing in detail just how to tune some of the many receivers recently described in these pages. Non-technical language will be used throughout, and it is hoped that once a better understanding on how to tune is obtained by the listener, all round better results will accrue.

THOSE readers who have made or attempted to make the Accumulator B battery described in "Wireless Weekly" in the issue of November 19 will find many useful hints in this letter from Mr. A. Rogers, Brisbane. He says:—

In the readers' queries column I see that several have had trouble with this apparatus, as I did. I have been experimenting and collecting information, and have now made the apparatus to work in a most satisfactory manner. No more dry batteries for me, with all their expense, noises, troubles, etc., and if your correspondents will follow the following instructions, they, like several of my friends, will have no more trouble. Both the accumulator and the rectifier can be constructed as directed in your November 19 issue, except that I recommended the glass separators to be 1-in wide. I found the parallel wiring of the rectifier to be the simplest job. The one difficulty is to get the rectifier once rectifying. After the adaptor has been fitted into the lamp-holder or the 2 pin plug has been inserted into the electric light socket, and connection has been made between the rectifier and the accumulator (taking the aluminium lead to the desired positive end of the accumulator), then turn the current on. Rectification will take place when the aluminium electrodes are immersed at a certain depth; in my rectifier this depth is about 14-in. Sparking will take place, when rectification commences, and will gradually die away as the accumulator becomes charged. If after patiently experimenting no rectification ensues, then switch off the current, take out the adaptor and reverse polarity, and try again. It will be found that you will succeed this time, and whenever about to charge again, always keep the same polarity, and for the same reason always put the charging lamp in the battery holder in the same manner. The main charging is done through a carbon filament 22 c.p. lamp, but to get the rectifier going I find that it is best to use an ordinary 40 watt house lamp for 5 minutes, then put the charging lamp in circuit. I use my accumulator every night in the week for about four hours, recharging it every evening, which takes from 30 to 40 minutes and costing about 3d per week.

Acid is due to the formation of a film of normal hydroxide of aluminium over the surface of the aluminium electrode. This film presents a very high resistance to the current when flowing in one direction, but very little resistance when flowing in the opposite direction. Efficiency of the

film depends upon the temperature, which should not exceed 80 deg. F. There is also a certain critical voltage above which the film breaks down locally, and gives rise to a luminous and somewhat disruptive discharge which above a certain intensity is accompanied by a rapid rise of temperature and fall in efficiency.

If the rectifier has been left standing for any length of time, it will probably need to be formed (that is, film produced) before it can be used. This is effected by connecting it through a variable resistance, e.g., a tapped choke coil with a circular contact switch, to the alternating current mains and gradually cutting out the resistance as the current falls. The operation of forming only takes a few minutes and puts the electrodes into the condition necessary for satisfactory operation. When a chemical rectifier is not in use, the electrodes will lose the film, after which the electrodes must be reformed as before described.

Loss of film is prevented by removing the aluminium electrodes from the electrolyte, laying them down on their edge, and without damaging the film in any way, allow them to dry and remain there until they are reinserted into the electrolyte prior to starting rectification again.

An old solution that is heating and not rectifying properly will turn a reddish brown color.

Water must be added to the electrolyte from time to time to make up for evaporation. Excessive heating of the electrolyte with normal load indicates rectifier needs recharging.

When the rectifier is passing alternating current it will heat, and if the solution be very weak it will cause a buzzing sound. I also found that this can be detected by taking a shock off the accumulator through the fingers. The remedy when this happens is to operate the variable resistance as before described. Operating the rectifier with a weak electrolyte will cause the electrodes to eat away.

The above are the results of my experience, and following the advice given above, combined with that in your issue of November 19, 1926, nobody should have any more B battery trouble. Within a week they should certainly get a real good chocolate deposit on their accumulator positive plates. I might mention that I have only used ammonium phosphate as the electrolyte in the rectifier, and I made the lead plates as large as I could get them in the jars, and nearly semi-circular.

Yours faithfully,
A. H. ROGERS.

The Best Sets Deserve The Best Parts

STAND 37
EXHIBITION

STAND 37
EXHIBITION

ADVANCE

ALL AUSTRALIAN

"Advance" Radio Parts Lead in Quality and Prices.

Since the inception of our business it has been our policy to give better parts for less money, and to increase our markets and output in order to reduce our selling cost to the buying public. This has been done now in numerous cases. The popular demand for our goods has forced us to make a big increase in our plant, and also employ more hands. You get the best at lowest prices, and are supporting an ever-growing Australian industry.



Rear Panel Mounting
Vernier Dial
Price, 7/6

The Advance Rear Panel Mounting Vernier Dial has been designed to eliminate that clumsy dial that has ruined the appearance of good sets in the past. Now a neat high finished bezel with only a black knob gives the set a professional appearance. Bring your old set up to date, and install this Rear Panel Dial. Supplied with neat bezel finished in gold, silver or bronze. Drilling template supplied—your own set drawing or engraver specifies exact finish required.



The New
"Advance"
CENTRALIGN
CONDENSER
00025—12/ 00035—
12/ 0005—12/6

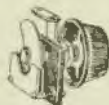


The new Advance "Centralign" Condenser has been introduced so that no crowding of spacing occurs on any portion of the dial reading, and retains normal separation on the middle of the scale. Constructed to a one-piece aluminium frame being most rigid, non-corrosive brass plates with a minimum of dielectric hollow shaft designed for multiple mounting and turns either to left or right, insuring the same Centralign tuning. The above features make the Advance "Centralign" true to name, advanced ahead of the times.

"Advance" Audio Frequency Transformer

This Transformer has been designed to build up the volume of detected broadcast signals to a true reproduction of the transmission, to increase the strength of signals without distorting the natural quality of tone. Each individual transformer is carefully inspected and tested at the factory before being packed, and is guaranteed to be electrically and mechanically perfect. Made in ratios of

2-1, 3-1, 5-1. Price 17/6



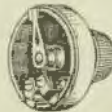
MIDGET and NEUTRALIZING CONDENSERS

The Advance Midget Condenser has all the characteristics that have made Advance Condensers so famous. This Midget has self-wound non-corroding brass plates supported by minimum of dielectric, and finished with a nickel moulded bakelite knob.

The Neutralizing Condenser of the same construction as above, complete with base, mounting and bakelite knob. Correct capacity for neutralising and balancing condensers.

Midget 11 Plate — 0/6; Neutralizer 3 plate 4/0

Rheostats
6, 10, 20 and
30 ohms—
3/—



Potentiometers
200 and
400 ohms.
3/6

Rheostats and Potentiometers
This metal shielded air cooled rheostat is of the same quality as all other Advance products. These are of wire contact, and a perfect radio screw unit. All that is desirable in the rheostat is embodied in this unit.

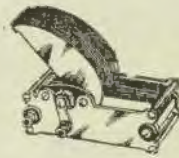
The Potentiometers have the same features and characteristics as the rheostats, made in 200 and 400 ohms.



UX or UV Porcelain Tube Sockets

The Advance Low Loss Porcelain Tube Socket has been designed for its perfect insulation, and for use with either U.X. or U.V. type of tubes. Spring contacts of phosphor bronze with inside wide and bottom contact, thus insuring the perfection of contacts. The porcelain insures that perfect insulation that is ideal for radio purposes.

Price 2/6



Improved Straight Line FREQUENCY CONDENSER

This condenser is an improved Straight Line Frequency, having solid spacing bars insulation. Receives all broadcasting stations evenly over the sweep of the dial frequency. Eliminates bending of stations and increases selectivity.

PRICES:

00025. 9/6
00035. 10/
0005. 10/6



Knife Switch with Arrestor

A necessary adjunct to a receiver being tested by the Melbourne University, and passed by the Fire Underwriters' Association. It embodies serial and mainline switch with lightning arrester.

Price—2/3



Lightning Arrestor, 2/0

A separate unit when switch with arrester is not required; also passed by the Melbourne University and Fire Underwriters' Association.

FOX & MACGILLYCUDDY, SYDNEY.

HARRINGTONS SYDNEY.

Improving Crystal Set Reception

Extracts from a talk
delivered at 3LO

By H. K. LOVE

(President Victorian Section
Wireless Institute.)

ASSUMING that the majority of listeners are crystal users it would be interesting to know just how many use a single coil crystal receiver. As broadcasting progresses the wave length band will become more and more crowded by the addition of broadcasting stations. This fact will obviously call for a receiver which possesses a marked degree of selectivity. A crystal receiver is perhaps the most unselective type of wireless receiver, and unless carefully constructed it will not be capable of selecting the desired stations without its user experiencing a considerable amount of interference from undesired stations. A single coil receiver is not capable of doing this, and therefore listeners will do well to change over to a two coil unit which uses one coil and condenser for tuning the aerial system, and another coil and condenser to tune the closed or secondary circuit.

The closed circuit consists of a tuning coil which is bridged by a variable condenser, and has the crystal detector, the telephones and the blocking condenser included in it. The dimensions for the construction of a two coil or coupled crystal receiver are as follows: The aerial coil can be made up of 70 turns wound on a three inch cardboard former. The wire used for winding should be preferably about 22 gauge double silk or cotton covered. The last forty turns should be tapped each ten turns. The aerial should be connected by means of a terminal to one end, and the earth to the other or last turn. The secondary coil should be arranged so that it can be slid to or from the aerial coil, so that the degree of coupling may be varied at will. The construction of the secondary is as follows: 60 turns of No. 22 silk (double) or cotton covered wire wound on a 3-in. cardboard former. For convenience this coil may be tapped at the fortieth, fiftieth and last turn. A .0005 variable condenser should be used to tune the secondary coil, and the detector telephones wired in the usual way. A .001 fixed condenser should be placed across the telephone terminals. This will greatly help to build up the signals and should be used in any crystal receiver.

Speaking broadly, the further away the secondary is from the aerial coil, the sharper will be the tuning in the closed circuit. There is, of course, a limit to the distance. The secondary coil can be moved from the aerial coil and still maintain coupling. It will be found that the correct coupling will be with the coils from one

to two inches apart. The aerial coil is also tuned with a .0005 variable condenser. In order to use the lower wave lengths less turns can be used by shifting the taps up. For longer wave lengths shift the taps down to include more turns.

To those who have for some time used a single coil tuning device the use of the two coil system may be a little tedious. A short time spent in experimenting will, I feel sure, soon convince a user of this type of set that the results are much superior.

Using a set of this description I have tuned many stations on the amateur band without the slightest interference from 3LO, and by careful adjustment using all the turns in the secondary coil and about 50 in the primary or aerial coil, stations of a higher wave length than 3LO may be easily tuned in.

There are still some points to be considered to improve crystal reception. The aerial coil and the secondary coil should both be wound on separate 3-in. formers so arranged that they can be easily moved closer to or further away from each other. It will be found that with the coupling very tight, that is, the coils close together, the tuning will be fairly flat—but the volume from a powerful station will be greater with tight coupling. With the coils in this position it will be very difficult to tune out a nearby station. If, however, the coupling is loosened the tuning will become very slack, and it will be very much easier to tune out a station which is both powerful and fairly close.

If the coils are placed too far apart, the energy from the aerial coil will not induce sufficient current into the secondary coil to operate the detector. The coupling adjustment should be so arranged that it can be set in two places: (1) The best adjustment for full volume from your local station. (2) The best adjustment (which will be looser coupling) for sharp tuning—it is only when the tuning is at its sharpest that the set is in a condition to pick up distant stations.

I have received a number of reports lately which indicate that the loose coupling of crystal receivers is having the effect of bringing in the other states. Having satisfied himself that the coupling adjustment is O.K. for distance reception the listener must now look to the other parts of the receiver to ensure that all the very feeble energy collected by the coils is used, not wasted.

Poor insulation may be responsible for a good deal of energy loss, and the use of insensitive headphones in conjunction with a crystal receiver is equivalent to carrying water in a bucket with a big hole in it. Telephones of the most sensitive type should be used. Telephones which have a high resistance are the best with crystals, as, if they are correctly made, the resistance is high because they are wound with thousands of turns of very fine wire, whereas low resistance 'phones have few turns of comparatively heavy gauge wire. The more times the energy has to find its way round the magnets of the telephones, the greater its influence on the diaphragm.

To boil all this down, then, to simple words, it is not the actual resistance which counts, but the number of effective turns of wire on the magnets of the 'phones.

Always place a .001 fixed condenser across the 'phone terminals. This may quite easily increase your signals by 25 per cent, although it will not do so in every case. It depends on the capacity of the telephone cord or lead.

A DIRECT RADIO link between Nauen, Germany, and Rio de Janeiro, Brazil, has been established with a rate of 2.75 retransmits per word.

BROADCASTING Query: Is listening lessening?

SUBSEQUENT to a new law recently passed and governing the broadcasting emissions in France, the Association of French Wireless Manufacturers (Syndicate des Industries Radio-Electrique) proposes to erect a powerful new broadcasting station of 50,000 watts on the lines of that of Daventry. It is to be used to broadcast performances at the Opera-Comique, Comedie-Francaise, and other Paris theatres. Its radius will be sufficiently great to cover the whole of Europe, Northern Africa, and the Eastern States of North America.

A New Shipment

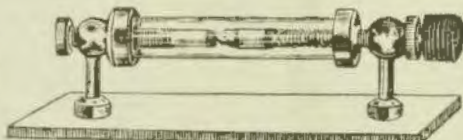
We regret having had to disappoint so many of our customers, through not being able to fulfil their orders for the famous LION MICRO PERMANENT DETECTOR due to the unprecedented demand throughout the Commonwealth. This will serve to intimate that new stocks have arrived and all outstanding orders will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

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

PRICE:

6/6


each.



PRICE:

6/6

each.

 Illustration of Lion Micro Detector (actual size).

LION MICRO "Maxtone" enclosed in polished ebonite 8/6

LION MICRO "De Luxe" for panel mounting 7/6

NO ADJUSTMENTS.

NO CATSWHISKER.

DUST AND FOOL PROOF.



NO MORE LOST CONCERTS.

SOLD WITH OUR GUARANTEE.

Sole Agents for Australasia:

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BRANCH:
23 PITT ST.

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BRANCH:
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MAIL ORDER DEPT., 60 GOULBURN STREET.

ACCESSORY PRICE LIST R7 SENT POST FREE ON REQUEST.

BROADCASTING PROGRAMMES

For the COMING WEEK

Friday, March 18
2FC, SYDNEY

Farmer's Broadcasting Service.
Wave Length, 442 Metres.

EARLY MORNING SESSION.

- 7.0 a.m.—"Big Ben" and announcements.
- 7.5 a.m.—Studio music.
- 7.10 a.m.—Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services.
- 7.25 a.m.—Investment market, mining share market, metal quotations.
- 7.35 a.m.—Wool sales, breadfruit markets, interstate markets, produce markets.
- 7.45 a.m.—"Sydney Morning Herald" news service.
- 8.0 a.m.—"Big Ben" Studio music.
- 8.15 a.m.—Close down.

MORNING SESSION.

- 9.30 a.m.—Marching music for school children.
- 9.40 a.m.—Popular records.
- 10.0 a.m.—"Big Ben" and announcements.
- 10.5 a.m.—"Late Sydney Morning Herald" news service.
- 10.15 a.m.—Studio music.
- 10.45 a.m.—A talk on home cooking and recipes by Miss Ruth Furse.
- 11.30 a.m.—Marching music for school children.
- 12.05 a.m.—Close down.

MIDDAY SESSION.

- 12 noon—"Big Ben" Programme announcements.
- 12.4 p.m.—Stock Exchange, first call.
- 12.5 p.m.—Studio music.
- 1.0 p.m.—Rugby wireless news.
- 1.15 p.m.—Miss Florence Grant, soprano, "Finger Lings" (Caret).
- 1.30 p.m.—"Big Ben" Weather intelligence.
- 1.45 p.m.—"Evening News" Holiday news and vice.
- Producers Distributing Society's report.
- 1.50 p.m.—Studio music.
- 1.55 p.m.—Stock Exchange, second call.
- 1.60 p.m.—Marching music for school children.
- 1.65 p.m.—Miss Florence Grant, soprano.
- 1.74 p.m.—Studio music.
- 2.0 p.m.—"Big Ben".
- Close down.

AFTERNOON SESSION.

- 2.30 p.m.—Programme announcements.
- 2.35 p.m.—A vocal recital, arranged by Mr. James Bragg.
 - 1. "Song of Mine" (Barns), MISS NORMA WILLIAMS.
 - 2. "Rolling down to Rio" (Gwynn), MR. ALEX. SINCLAIR.
 - 3. "Olympic and Parisian" (Demberg), MISS DOROTHY LLOYD.

- 2.47 p.m.—4. "Come to the Fair" (Martin), MR. KARL HARR.
- 3.0 p.m.—"Big Ben" A. Studio reading.
- 3.15 p.m.—Another item from the vocal recital, arranged by Mr. James Bragg.
- 3.19 p.m.—4. "Tired Day" (Spalderson), MISS NORMA WILLIAMS.
- 3.33 p.m.—5. "The Old Suffer" (Stanford), MR. ALEX. SINCLAIR.
- 3.37 p.m.—7. "Along the Valley" (Greeth), MISS DOROTHY LLOYD.
- 3.50 p.m.—Marching music for school children.
- 3.55 p.m.—FROM FARMER'S TEA ROOMS—Miss Ethel Muller, contralto: "A request" (Woodward, Oxford).
- 4.05 p.m.—FROM THE STUDIO—Mr. Karl Harr, vocal solo: "King Charles" (White).
- 4.20 p.m.—Some popular records.
- 4.30 p.m.—FROM FARMER'S TEA ROOMS—Miss Alice Kent, mezzo: "Dorothy Wing" (Phillips).
- 4.40 p.m.—A music talk by Mr. Ewart Clippin.
- 4.50 p.m.—FROM FARMER'S TEA ROOMS—Miss Ethel Muller, contralto: "Sultan" (Lange).
- 4.55 p.m.—FROM THE STUDIO—Pianoforte solo on the "Behring" Player Piano.
- 4.60 p.m.—FROM FARMER'S TEA ROOMS—Miss Alice Kent, mezzo: "In the year which I live" (Phillips).
- 4.65 p.m.—Studio Exchange, third call.
- 4.65 p.m.—Close down.

EARLY EVENING SESSION.

- 5.45 p.m.—The climax of 2FC.
- 5.50 p.m.—"The Radio Man" talks to the children.
- 6.15 p.m.—"The Juvenile Friends of Madame Ada Baber.
- 6.40 p.m.—FROM FARMER'S TEA DINING HALL—Broadcaster's Ltd., Sydney, wave-length 442 metres, power 500 watts.
- 7.0 p.m.—"Big Ben". Late sporting news—a talk on tomorrow's prospects by the 2FC Racing Commentator.
- 7.10 p.m.—Market reports (wool, wheat, and grain).

NEW SOUTH WALES "A" and "B" CLASS BROADCASTING STATIONS.

- 274.—Farmer's Broadcasting Station, Ltd., Sydney, wave-length 442 metres, power 500 watts.
- 281.—Broadcasters' Ltd., Sydney, wave-length 442 metres, power 500 watts.
- 210.—Theosophical Broadcasting Station, Ltd., Sydney, wave-length 315 metres, power 100 watts.
- 218.—Trades and Labor Council, Sydney, wave-length 280 metres, power 150 watts.
- 219.—Lita Sandel, Sydney, wave-length 285 metres, power 100 watts.
- 215.—The Sandel, Wargah, wave-length 300 metres, power 500 watts.
- 216.—Morkler Bros., Bathurst, wave-length 215 metres, power 250 watts.
- 217.—Electrical Supplies Supply Co., Sydney, wave-length 200 metres, power 250 watts.
- 212.—Burgin Electric Co., Sydney, wave-length 315 metres, 100 watts.
- 210.—N. A. Douglas Newcastle, wave-length 285 metres, 100 watts.

- 7.15 p.m.—Fruit and vegetable markets.
- 7.20 p.m.—Weather and shipping intelligence, stock exchange.
- 7.30 p.m.—"Late Evening News" news service.

EVENING SESSION.

- 7.40 p.m.—Programme reviews.
- 7.45 p.m.—Mr. G. J. Luckley will talk about the North Shore Festival.
- 7.50 p.m.—Miss Goolie leave interview: Miss Dorothy Lane at her dressing room at Her Majesty's Theatre, Sydney.
- 8.0 p.m.—"Big Ben". From Her Majesty's Theatre, Pall Mall, Sydney. Broadcast by this station for the first time, the new Musical Comedie Company in "Tell Me More," produced by Harry S. Burdell.
- Act One—Scene 1. The Three Arts Ball, Winter Gardens, New York City.
- Scene 2. A Divorced in the Winter Garden.
- Scene 3. Maison Blanche, 5th Avenue, New York City.
- Musical Numbers.
- Duet: "Tell Me More." Margery Hackle and Landaul Hudson.
- Reprise: "Tell Me More."
- Opening Ensemble, Chorus.
- Song: "Mr. and Mrs. Squire." Lou Franklin and chorus.
- Song: "When the Dobbies go by." Full chorus.
- Song: "Puddin' Muddin' Bomee." Dorothy Lane and chorus.
- Duet: "Why do I love you." Dorothy Lane, Lou Franklin and chorus.
- Duet: "It was your first." Gae Blunt and Miss Allan.
- Quartet: "Kinky" the climb away." Margery Hackle, Dorothy Lane, Lou Franklin and chorus.
- Finale: Principal and Ensemble.
- 8.10 p.m.—FROM THE STUDIO—A talk on the art of Penning, by Professor Frank Stuart.
- 8.20 p.m.—Trio: (a) "Allergo Mistrato" (Wohler).
- (b) "Scherzo" from Opus 63 (Wohler).
- Flute, Mrs. E. W. Garfield.
- Piano, Mr. E. W. Garfield.
- Guitar, Mr. Gladstone Bell.
- 8.31 p.m.—Mr. John Benjamin, light baritone, sing at the Studio, light baritone: "Evening" (V. Vanoni).
- 8.35 p.m.—Mr. George Searle, comedian: "We all do it" (Bennett).
- 10.0 p.m.—"Big Ben".
- Andante: From Concerto for Flute and Piano—Bismont.
- Mr and Mrs. E. W. Garfield.
- 2.0 p.m.—Mr. John Benjamin, light baritone: "Benvenuto, Benvenuto" (Toselli).
- 10.10 p.m.—Mr. George Searle, entertainer: "It was all right then" (Pope).
- (a) "I wonder why" (Adair).
- 10.20 p.m.—Mr. John Benjamin, light baritone: "A Vucchella" (Toselli).
- 10.20 p.m.—From the Wentworth Cafe, Church Hill, Sydney: The new Wentworth Symphony Dances Orchestra, under the baton of Mr. Sydney Blumson.
- 10.30 p.m.—Mr. John Benjamin, light baritone: "Serenade" (Sprengle).
- 10.35 p.m.—From the Wentworth Cafe: The Wentworth Symphony Dances Orchestra.

Tremendous Capacity in Every Philco.

10.45 p.m.—Mr. George Searle, entertainer:
"I think of you" (Western).
10.48 p.m.—Celebrity records.
11 p.m.—"Big Ben." Late news and announcements.
11.5 p.m.—The Wentworth Symphonic Dance Orchestra, under the baton of Mr. Sydney Simpson, will play until midnight.
12 midnight—"Big Ben."
12 National Anthem.
Close down.

2BL, SYDNEY

Broadcaster's Ltd.

Wave Length, 858 Metres.

Friday.

EARLY MORNING SESSION.

7.15 a.m.—G.P.O. clock and chimes.
7.18 a.m.—Metropolitan Weather Forecast.
7.31 a.m.—Musical programme from the studio.
7.33 a.m.—Physical training and health exercises.
7.36 a.m.—G.P.O. clock and chimes.
7.39 a.m.—Hints on health.
7.45 a.m.—Physical training and health exercises.
7.48 a.m.—G.P.O. clock and chimes.
7.49 a.m.—Weather report.
7.49 a.m.—Broadcasting special news service.
8 a.m.—G.P.O. clock and chimes. Close down.

MORNING SESSION

10 a.m.—G.P.O. clock and chimes.
10.1 a.m.—Weather report.
10.3 a.m.—Musical programme from the studio.
10.30 a.m.—News service from the Daily Telegraph.
10.35 a.m.—Musical programme from the studio.
11 a.m.—G.P.O. clock and chimes.
11.1 a.m.—News from the Daily Telegraph.
11.15 a.m.—Basket Market report.
11.18 p.m.—Vegetable Market report.
11.21 a.m.—Fish Market report.
11.21 a.m.—Fruit Market report.
11.23 a.m.—London Dairy Farm, Egg and Poultry Market Report.
11.25 a.m.—London Mail Quotations.
11.29 a.m.—Ships in call by wireless.
11.31 a.m.—Information re Interstate and Overseas Mails.
11.33 a.m.—Shipping information—arrivals and departures.
11.35 a.m.—Women's Section—talk by Miss Gwen Varley, Broadcaster's Women's Sports Authority on "Basket Ball."
11.45 a.m.—Social notes by Mr. Jordan.
11.55 a.m.—Mrs. Jordan replies to correspondents.
12 p.m.—Talk on "Feeding the Family" by Mrs. Jordan.

12.30 p.m.—G.P.O. clock and chimes.
12.31 p.m.—Sydney Stock Exchange Calls.
12.33 p.m.—"Sun" Newsletters news service.
12.45 p.m.—Hilliers' Instrumental Quartet—direction: Carol Carling.
1.30 p.m.—G.P.O. clock and chimes.
1.31 p.m.—Weather report and forecast.
1.33 p.m.—Sydney Stock Exchange Calls.
1.36 p.m.—News from the "Sun."
1.43 p.m.—Musical programme from the studio.
2 p.m.—G.P.O. clock and chimes—close down.

AFTERNOON SESSION.

Racing information broadcast by courtesy of the "Sun."
2 p.m.—G.P.O. clock and chimes.
2.1 p.m.—Weather report and forecast.
2.3 p.m.—Social News from the "Sun."
3.16 p.m.—News from the "Sun."
3.15 p.m.—Civil Service: Stages Trial—direction—Miss De Courten Bromer.
3.30 p.m.—G.P.O. clock and chimes.
3.31 p.m.—News from the "Sun."
3.43 p.m.—Musical programme from the studio.
4 p.m.—G.P.O. clock and chimes.
4.15 p.m.—Civil Service: Stages Trial.
4.16 p.m.—Social Story.
4.30 p.m.—G.P.O. clock and chimes.
4.31 p.m.—Musical programme from the studio.

4.45 p.m.—Producers' Distributing Society's Fruit and Vegetable Market report.
4.50 p.m.—Shipping information when available.
4.55 p.m.—Day's racing results on race days.
4.55 p.m.—News from the "Sun."
4.58 p.m.—Resume of night's programme.
5 p.m.—G.P.O. clock and chimes. Close down.

EARLY EVENING SESSION.

6.45 p.m.—G.P.O. clock and chimes.
6.46 p.m.—Little Willie and Daddy Longlegs, will entertain in the kitchen.
6 p.m.—The pupils of Miss Monica Seely will entertain the kiddies.
6.46 p.m.—Musical programme from the studio.
7 p.m.—SPECIAL COUNTRY SESSION.
7 p.m.—G.P.O. clock and chimes.
7.10 p.m.—Australian Mercantile Land and Finance Co.'s Report.
7.15 p.m.—Weather report and forecast.
7.16 p.m.—Stock Exchange Calls.
7.17 p.m.—Producers' Distributing Society's Vegetable and Fruit Market report.
7.18 p.m.—Grain and Fodder report "Sun."
7.19 p.m.—Daily Finance Report "Sun."
7.25 p.m.—Country News from the "Sun."
7.30 p.m.—Talk on "Gardening Science" by Mr. C. Cooper Park, Superintendent City Council.

2GB, SYDNEY

Theosophical Broadcasting Service.
Wave Length, 316 Metres.

Friday

MORNING SESSION

Cheerful Hour, conducted by Mr. J. K. Powell.
9.20 a.m.—Music.
9.25 a.m.—Gladness chat.
9.30 a.m.—Psychological class.
10.5 a.m.—Music.
10.10 a.m.—Biographical talks for schools.
10.25 a.m.—Music.
11.40 a.m.—Close down.

AFTERNOON SESSION.

6.30 p.m.—"The Children's Hour" conducted by Mr. J. K. Powell.
7.15 p.m.—Tapes of song numbers, vocal, guitar and gramophone.
7.20 p.m.—The Rt. Rev. G. A. Arundale.
7.55 p.m.—Duets for two voices, with piano accompaniment. Dan Scully, Monica Horler, Ada Brook.
8.5 p.m.—Address by Professor Ernest Wood.
9.15 p.m.—Songs by Miss Mary MacCormick.
9.21 p.m.—Vocal solos by Dan Scully.
9.35 p.m.—Vocal duet: Mary MacCormick and Ambrose Bourke.
9.38 p.m.—Instrumental Quartet: Dan Scully, Monica Horler, Muriel Lang, Ada Brook.
9.53 p.m.—Announcements.
9 p.m.—Songs by Mr. Ambrose Bourke.
9.5 p.m.—Special Talk: Mr. J. K. Powell.
9.21 p.m.—Duets for two voices, with piano accompaniment. Dan Scully, Monica Horler, Ada Brook.
9.33 p.m.—Duet vocal: Mary MacCormick and Ambrose Bourke.
9.40 p.m.—Instrumental Trio: Monica Horler, Muriel Lang, Ada Brook.
9.50 p.m.—Chorus talk.
9.55 p.m.—"Great Thoughts from Great Minds."

2KY, SYDNEY

Trade Hall Broadcasting Station.
Wave Length, 280 Metres.

Friday.

LUNCHEON HOUR SESSION.

12.15 p.m.—Tune-up to the ticking of the clock.
12.15 p.m.—Popular fox-trots, "Orpheus" Gramophone.

12.25 p.m.—Musical interlude.
12.40 p.m.—News items.
1.0 p.m.—Voice items.
1.15 p.m.—Hawaiian Steel Guitar Selections.
1.30 p.m.—Union news and meetings.
1.40 p.m.—Lincoln Records.
1.45 p.m.—Where to go tonight.
1.45 p.m.—Closing announcements.

CHILDREN'S HOUR.

4.30 p.m.—"The Storyman," Mr. THOMPSON.
5 p.m.—EVENING SESSION.
7.0 p.m.—Sporting feature, turf topics. Review of candidates and their prospects for tomorrow. Mr. A. E. POWELL.
7.40 p.m.—Tomorrow's sporting events and news items.
8.0 p.m.—Talk on motor cycle racing. Mr. J. S. BOSKES.
8.10 p.m.—Pianoforte solos. Miss MONICA LARCOMBE.
8.20 p.m.—Soprano solos. Miss EDITH WELSH.
8.30 p.m.—Monologue. Mr. DAVID EDLSTEN.
8.40 p.m.—Musical interlude. Glaciarium Dance Orchestra. (Billy Romaine, Leader). By kind permission of GEO. IRVING.
9.0 p.m.—Harmonie solos. Mr. VAL BLACK.
9.10 p.m.—Sports feature. Ringing description of Main contest from McEughs Leichhardt Stadium.
9.55 p.m.—Close of Flight.
9.56 p.m.—Music from Studio.
10.0 p.m.—Closing announcements.

3LO, MELBOURNE

Broadcasting Co. of Aust.
Wave Length, 371 Metres.

Friday

MIDDAY SESSION.

THE STUDIO ORCHESTRA.
OSBORNE AND PERRYER.
MAGGIE FOSTER, violin.
JONES AND RAINE.
RUGH HUXHAM'S SERENADERS.
Accompanist: AGNES FORTUNE.
Announcer: MALCOLM DUDLEY.
"WHILE WAITING FOR THE WATER."
12 noon.—Time Signal. British Official wireless news from Rugby Reuter's, and The Australian Press Association Cable. Stock Exchange information. "Argus" and "Herald" news services.
12.30 p.m.—STUDIO ORCHESTRA: "Mantanello" (Auber).
12.40 p.m.—OSBORNE AND PERRYER: Whimsical Wavettes.
12.52 p.m.—MAGGIE FOSTER, violin: "Intermezzo" (Ester Kahn). "An old Melody."
1 p.m.—JONES AND RAINE, The Welsh Harpist: Singers and Songs. Human Pianok. "March of the Gladiators."
1.16 p.m.—Meteorological information. Weather forecasts for Victoria, Tasmania, South Australia and New South Wales.
1.20 p.m.—STUDIO ORCHESTRA: "Serenata" (Alberto Capella).
1.30 p.m.—HUXHAM'S SERENADERS: Quartet. "The Cuckoo Clock."
EDITH HUXHAM, D. BURDETT BENN MILLAR AND RUGH HUXHAM. Rev. Rufus "Friend of Mine."
RENN MILLAR.
MAGGIE FOSTER, violin: "Serenata" (Mackowski). Duo: "Honeycomb Belle."
RUGH AND EDITH HUXHAM. Contralto Solo: "The Silver King."
DOLLY BURDETT. STUDIO ORCHESTRA: "Sopulacion Pastore" (Alflet). Operatic Quartet from "Dorothy." EDITH HUXHAM'S QUARTETTE.
2 p.m.—Close down.

AFTERNOON SESSION.

- Speakers**
"AU FAIT" MRS. M. CALLAWAY MAHOOD
 THE STUDIO ORCHESTRA.
HASTINGS AND ADAIR.
HILTON, Porter.
TASMA TIERNAN, solo.
JESSIE BATCHELOR, contralto.
 Accompanist . . . AGNES FORTUNE
 Announcer . . . MAURICE HUDLEY
"ARE IN VARIOUS FORMS"
 3 p.m.—STUDIO ORCHESTRA.
 Jolly Rubbers (Suppe).
 3.10 p.m.—"AU FAIT" of Messrs. Buckley & Nunn, Ltd. will give a Fashion Talk.
 3.25 p.m.—HASTINGS AND ADAIR.
 Song: "That's Why I Love you"
 Pater:
 Flute: "Humoresque."
 Parody: "Carolina in the Morning."
 3.35 p.m.—STUDIO ORCHESTRA.
 "No No Naretta" (Youmans).
 3.45 p.m.—HILTON PORTER of the "Rose Marie" Co. (by permission of J. C. Williamson, Ltd.):
 "Arise, O Sun."
 "My Self When Young" (Lehmann).
 3.54 p.m.—TASMA TIERNAN, solo.
 "Pastorale" (Handel).
 4 p.m.—JESSIE BATCHELOR, contralto;
 "Joy Way" (McMurrough).
 "Love Sends a Little Gift" (Openhaw).
 4.7 p.m.—STUDIO ORCHESTRA.
 "Filiation" (Istock).
 4.15 p.m.—HILTON PORTER;
 "Baroque" (Sanderson).
 "Vale" (Russell).
 4.24 p.m.—STUDIO ORCHESTRA.
 "When Sweet Sixteen" (Victor Herbert).
 4.30 p.m.—MRS. M. CALLAWAY MAHOOD;
 "Art in Modern Life."
 4.45 p.m.—"Herald" news service. Stock Exchange information. Results of Koroni Races, will be given as they come to hand. (During the afternoon, descriptions of the BALLARAT MINERS' RACES, will be given by "Musket," of the "Sporting Globe.")
 5 p.m.—Close down.

EVENING SESSION.

- 5.40 p.m.—CHILDREN'S HOUR.
 Answers to Letters and Birthday Greetings.
 5.55 p.m.—SIDNEY BURCHALL, baritone:
 "B. Diddle Diddle."
 "I'm Walking Round in Circles."
 6.2 p.m.—"BILLY SUNNY" n.w. has a story for the little ones.
 6.35 p.m.—MAGGIE FOSTER, solo:
 Tiny pieces for tiny people.
 6.50 p.m.—SIDNEY BURCHALL will sing again.
 6.55 p.m.—"BILLY SUNNY" Stories.
 "The Queen Bee."
 "The Black Princess."
 6.55 p.m.—"Argus" and "Herald" news service. Weather synopsis. Shipping movements.
 6.47 p.m.—Stock Exchange information.
 6.52 p.m.—Fish Market reports by J. R. Borrett, Ltd.
 6.55 p.m.—River reports.
 6.58 p.m.—Market reports by the Victorian Producers Co-operative Co. Ltd. Haymarket Sheep sales. Poultry, Grain, Hay, Straw, Jute, Dairy Products, Potatoes and Onions.
 7 p.m.—Market reports of Fruit, by the Victorian Fruitsters' Association, compiled by the "Fruit World," exclusive to I.L.O. Market prices of Oranges and Lemons by the Victorian Central Citrus Association Pty., Ltd.

NIGHT SESSION.

- Speakers**
MR. H. A. MULLETT, MR. H. E. LOVE,
"CARDIGAN."
 THE STUDIO ORCHESTRA.
MARIE LE VARRE, Comedienne.
MOANA LUD DUO.
JONES AND RAINE.
HUXHAM'S SERENADERS.
OSBORNE AND PERRYER.
HASTINGS AND ADAIR.

- SIDNEY BURCHALL, baritone.
 COLLINGWOOD CITIZENS' BAND.
 JOE ARONSON AND HIS SYNCOPATING COPING AT SYMPHONISTS.
 Accompanist . . . AGNES FORTUNE
 Announcer . . . ALFRED ANDREW
 7.15 p.m.—Under the auspices of the Department of Agriculture, MR. H. A. MULLETT, Superintendent of Agriculture:
 "Pasture Top Dressing."
 "SOME FLIGHTS OF FANCY."
 7.30 p.m.—STUDIO ORCHESTRA.
 "Habana in America" (Roussin).
 7.40 p.m.—MARIE LE VARRE, comedienne:
 "Then I'll be Happy."
 "Roll 'em Girls."
 7.47 p.m.—MOANA LUD DUO:
 "Kawaii Waltz."
 "Kaukapu Waltz."
 7.57 p.m.—JONES AND RAINE:
 Song: "Three Times a Day."
 "I Know a Lovely Garden."
 "My Flano is My Fat!"
 8.10 p.m.—COLLINGWOOD CITIZENS' BAND.
 Overture, "Callip of Bandas."
 Cornet solo, "Farol." Soloist: W. BONEY.
 8.20 p.m.—RUGH HUXHAM'S SERENADERS.
 Quartet, "Boas."
 EDITH HUXHAM, DOLLY BURDETT, RENN MILLAR and HUGH HUXHAM.
 Bass Solo, "Plymouth Hoe."
 RENN MILLAR.
 BESSIE GAINSON, violin:
 "Rondino" (Kreisler).
 Humorous Quartet, "Old Mother Hubbard."
 THE SERENADER QUARTET.
 Soprano Solo, "A Walk in the Wood."
 EDITH HUXHAM.
 STUDIO ORCHESTRA.
 "Air Louis XII." (Ghyss).
 Operatic Quartet from "Trovatore."
 THE SERENADER QUARTET.
 8.55 p.m.—STUDIO ORCHESTRA.
 "Tales of Hoffman" (Offenbach).
 9 p.m.—OSBORNE AND PERRYER:
 Cockeye Comedy.
 9.17 p.m.—COLLINGWOOD CITIZENS' BAND:
 Selection, "Rigoletto."
 9.27 p.m.—MARIE LE VARRE, Comedienne:
 "Originalities."
 9.34 p.m.—MR. H. E. LOVE:
 Technical Talk.

INTERSTATE "A" AND "B" CLASS BROADCASTING STATIONS.

- 310.—Broadcasting Company of Australia, Ltd., Melbourne, wavelength 371 metres, power 5000 watts.
 440.—Queensland Radio Service, Brisbane, wavelength 385 metres, power 5000 watts.
 461.—Central Broadcasters' Ltd., Adelaide, wavelength 395 metres, power 5000 watts.
 6WV.—Western Farmers, Ltd., Perth, wavelength 1250 metres, power 5000 watts.
 721.—Tasmanian Broadcasters, Ltd., Hobart, wavelength 535 metres, 5000 watts.
 8AR.—Associated Radio Co., Ltd., Melbourne, wavelength 484 metres, power 1400 watts.
 10B.—Dunlight Business and Technical College, Melbourne, wavelength 355 metres, power 500 watts.
 11UZ.—O. J. Nilson & Co., Melbourne, wavelength 319 metres, power 100 watts.
 400.—Gold Radio Electric Service, Townsville, Queensland, wavelength 244 metres, power 1000 watts.
 5KA.—Sport Radio Broadcasting Station, Adelaide, wavelength 250 metres, power 1000 watts.
 10N.—SDN Pty., Ltd., Adelaide, wavelength 313 metres, 500 watts.

- 9.44 p.m.—STUDIO ORCHESTRA:
 "Andante—Surprise Symphony" (Haydn).
 9.54 p.m.—British Official Wireless 1924's from Rugby Announcements.
 10 p.m.—"CARDIGAN"—Mr. H. A. MULLETT, Sporting Editor of the "Argus" and "Australasian," will speak on Saturday's Races.
 9.14 p.m.—HASTINGS AND ADAIR:
 "Hair Bobbed."
 "Pater."
 "Emblem."
 "Pop Goes the Weasel."
 10.25 p.m.—COLLINGWOOD CITIZENS' BAND.
 "A Rustic Sube."
 10.35 p.m.—SIDNEY BURCHALL, baritone:
 "I Love for You."
 "Wayside Tramp."
 10.43 p.m.—MOANA LUD DUO:
 "Tasy Honolulu."
 "Yakkie Kakkie Koo."
 10.43 p.m.—"Argus" news service. Weather forecast.
 11 p.m.—OUR GREAT THOUGHT:
 "Honey always receives part of its value from the manner it is bestowed."
 —Dr. Johnson.
 11.1 p.m.—JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS:
 "I Won't I Had Me Old Gal Book."
 "Avery."
 "Bye, Bye, Blackbird."
 "The Village Blacksmith went the Village Snow."
 "Idolizing."
 "That's Why I Love You."
 "Tonight's My Night with Bobo."
 "Dreaming of Castles in the Air."
 "Burdette."
 "Am I waiting my Time."
 "Rose Coloured Glasses."
 "Hi Ho the Morris."
 "Albino De" (Waltz).
 "Let's Talk About My 'n' See-me."
 11.40 p.m.—GOD SAVE THE KING.

4QG, BRISBANE

Queensland Radio Service.
 Wave Length, 385 Metres.

Friday

MIDDAY SESSION.

- 12.55 p.m.—Tune in.
 1 p.m.—Market reports. Weather information supplied by the Commonwealth Weather Bureau. News service supplied by "The Daily Mail" and "The Daily Standard."
 2.20 p.m.—FROM HOTEL CARLTON:
 Lunch Music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
 1.50 p.m.—FROM THE OBSERVATORY:
 Standard's Time Signal.
 2 p.m.—Close down.

AFTERNOON SESSION.

- 3.30 p.m.—FROM HOTEL CARLTON:
 Afternoon Tea Music, played by Hotel Carlton Symphony Orchestra.
 4.15 p.m.—FROM THE STUDIO:
 News service supplied by "The Telegraph."
 4.30 p.m.—Close down.

EARLY EVENING SESSION.

- 6 p.m.—"Daily Standard" news. Weather information. Announcements.
 6.30 p.m.—The Children's Session:
 "Stories by The Sandman."
 7 p.m.—Market reports. Stock reports. Lectures—"Farming Behind the Lines in France"—Mr. J. F. F. Reid (Editor, "Queensland Agricultural Journal").
 7.30 p.m.—Weather news. Announcements.
 7.45 p.m.—Standard Time Signal.

NIGHT SESSION.

- 7.45 p.m.—Lecture Session—"A Talk arranged by the Workers' Educational Association—Essay Writing"—Mr. E. J. Dunlop, B.A.

- 11 p.m.—STUDIO CONCERT.**
Operatic Selections, "Serenade" (Orchestra), the Studio Orchestra (conductor, Mr. A. R. Frothington); a thought for tonight by Will H. Lister—"The Supreme Message"; soprano solo, "Serenade" (Solo Singer), Miss Ruth Porteous; Hawaiian instrumentalists, the Block and Gardner Duo; reading, "The Last Wish" (Monroe de Balam); Mr. J. F. Decker, characteristic, "The Goddess's Wedding Feast" (Kerita), the Studio Orchestra; contralto solo, "Ball as the Night" (Belmi); Miss Lillian McLean, monologue, "Verona" (Milton Hayes); Miss Ruby Messer, soprano solo, "Lull" (Chapman); Miss Lillian Brown, melody, "Soprano de Venice" (Galen), the Studio Orchestra.
- 12 p.m.—Metropolitan Weather Forecast.**
Week-end road information for motorists, officially supplied by the Royal Automobile Club of Queensland.
- 12.30 p.m.—The Forecast a Head among the Masses** (Orchestra), the Studio Orchestra.

RADIO NOVELTY.

- 1.15 p.m.—THINGS WE DO NOT HEAR.**
A somewhat novel item will be featured in the programme.
- It is known to most people that there are many sounds created which the human ear is not sensitive enough to "hear". For instance, a fly walking across a sheet of paper emits quite a definite note, but the human ear is quite unable to record it.
- The microphone, the little instrument which records the notes of notes in a studio is, however, much more sensitive than the ear, and will pick up many sounds which the ear cannot detect. When a microphone is used to record these sounds and an amplifier is used in conjunction with it, some surprising results are obtained.
- An ultra sensitive microphone has been designed and constructed at QSL, and will be used to record quite a number of sounds which the ear cannot record. These sounds will be broadcast.
- Full details regarding each sound will be announced.

STUDIO CONCERT.

- 8.30 p.m.—Characteristic, "Soprano and Harp"** (Rollinson), the Studio Orchestra; soprano solo, "Fugue" (Gounod), Miss Ruth Porteous; Hawaiian instrumentalists, the Block and Gardner Duo; monologue, "The Astronomical Science" (Samm), Miss Ruby Messer; soprano, "Lament and Lullaby" (Belmi), the Studio Orchestra; contralto solo, "Soprano" (Charles), Miss Lillian McLean; soprano, "The Two Beauties" (Gronowald), the Studio Orchestra.
- 10 p.m.—"The Daily Mail" notes.** Announcements.
Close down.

5CL, ADELAIDE

Central Broadcasters, Ltd.
Wave Length, 325 Metres.

Friday.

MORNING SESSION.

- 7.30 p.m.—4 P.O. chimes.
7.45 p.m.—Selections on Automatic Reproducer and New Radiograms on Automatic Reproducer.
8.15 p.m.—"Advertiser" news service.
8.30 p.m.—Market reports.
8.45 p.m.—Musical programme interspersed with vocal numbers (Solo Singer).
9 p.m.—G.P.O. chimes and close down.

AFTERNOON SESSION.

- 3 p.m.—Frans Maple Leaf Cafe—Orchestral selections.
3.15 p.m.—Selections from the studio.
4 p.m.—4 P.O. chimes.
4.15 p.m.—Retrieval from the Arcade Cafe—Orchestra.
4.30 p.m.—Market reports and close down.
Chimes numbers.

EVENING SESSION.

- 8 p.m.—4 P.O. chimes.
8.15 p.m.—Dance music by "Consent Garden" Orchestra.
9 p.m.—Bedtime stories.
9.30 p.m.—Market reports by Messrs B. C. Ward and Co., A. W. Sandford and Co., A. E. Hall and Co., J. J. Jagers and Co., B. A. Farnell's Co-operative Union.
9.45 p.m.—Chorus talk by "Metropolitan".
9.55 p.m.—4 P.O. chimes.
10 p.m.—Messrs. Melbora Reid's programme relay from workrooms. Orchestral selections.
10.20 p.m.—Song, "Mr. Gerald Halsey".
10.34 p.m.—Relay from Messrs Melbora Reid's Orchestral selections.
10.44 p.m.—Song, Miss Valda Harvey.
10.54 p.m.—4 P.O. chimes.
11 p.m.—Weather report.
11.15 p.m.—Market reports.
11.30 p.m.—Musical Selections Reid's Concert programme by the Studio Orchestra, Miss Valda Harvey, Miss E. Lodgeman, Miss Myrtle Vernon, Mr. Will Rogers, Mr. Gerald Halsey.
11.45 p.m.—4 P.O. chimes.
12.01 p.m.—Advertiser's news service.
12.15 p.m.—Majors Reid's concert continued.
12.30 p.m.—G.P.O. chimes and close down.

6WF, PERTH

Westralia Farmer's
Wave Length, 1250 Metres.

Friday.

- 3.30 p.m.—Tune in.
3.45 p.m.—First Local News Bulletin.
Market reports.
Cables.
5 p.m.—Time signal from Perth Observatory.
5.15 p.m.—Weather Notes supplied by the Meteorological Bureau of Western Australia.
5.3 p.m.—STUDIO QUINSETTET.
6 p.m.—Close down.
6.30 p.m.—Tune in.
6.45 p.m.—Market programmes.
6.50 p.m.—Close down.
7 p.m.—Tune in.
7.15 p.m.—Musical evening for the Widows by AMAY Breen and Under Henry, Leslie, Percy, Reg and Doby.
7.35 p.m.—Stock and Share intelligence, Market reports, Cables, News supplied by the courtesy of "The West Australian" News-Advertiser.
8 p.m.—Time signal from Perth Observatory.
8.15 p.m.—Weather Notes supplied by the Meteorological Bureau of Western Australia. POLARIS NIGHT.
8.2 p.m.—Musical programme, including Artists.
10 p.m.—Second Local News Bulletin supplied by the courtesy of "The Daily News" Newspaper Co.
10.30 p.m.—Close down.

- 10.45 a.m.—"Big Ben" and Announcements.
10.55 a.m.—Last "Sydney Morning Herald" News Service.
10.55 a.m.—Studio Music.
10.58 a.m.—"Big Ben" and Announcements.
10.45 a.m.—A Popular Record.
10.45 a.m.—A Glistening Talk by Mr. G. J. Lockley ("Belgium").
11.0 a.m.—"Big Ben" Association Press Association and Reuters Cable News.
11.5 a.m.—FROM THE TIVOLI THEATRE, EASTLARKLAND, PERTH. SYDNEY: A special matinee performance for the Juvenile club, members of Sydney, at which the new American comedienne—Glen and Johnson—will appear.
The "Hello Man," with Uncle Ras and "Jerry," will attend this Matinee.
11.45 a.m.—Close Down.

SUNDAY AND AFTERNOON SESSION.

- 11.45 a.m.—Programme announcements.
1.0 p.m.—"Big Ben" Weather Intelligence.
1.15 p.m.—Forecast News: Midday News service, Stock Exchange Information.
1.25 p.m.—Music relay from the studio.
1.35 p.m.—Radio services over.
1.40 p.m.—Studio music.
1.45 p.m.—News of the Headquarters Racing Club Meeting will be given during the afternoon.
3.0 p.m.—FROM THE WESTWORTH CAFE, CLIFTON HILL, SYDNEY. Popular numbers by the new Westworth Symphonic Orchestra interspersed with recitals of recitatives, songs, including reciting and golf, and items from the studio.
4.15 p.m.—Complete resume of the afternoon events and race news.
4.30 p.m.—Close down.

EARLY EVENING SESSION.

- 6.45 p.m.—"The Chimes of 21C."
7.00 p.m.—"The Hello Man" calls the children.
7.15 p.m.—A serial story for the older ones.
7.30 p.m.—"Big Ben" Daily services news complete resume of the day's events.
7.45 p.m.—"Glistening Times" late news service.
7.50 p.m.—Weather intelligence; Studio music.

NIGHT SESSION.

- 7.45 p.m.—Popular records from the studio interspersed with recitations.
8.8 p.m.—"By Ben" FROM THE NEW PALACE THEATRE, PITT STREET, SYDNEY. THE PRODUCE OF "HULLA HULLA" by the new musical comedy written by Hone Fitzpatrick, Music by Kenneth Haddock, featuring Arthur Hignett, Musical Director, and Dorothy ACT ONE.
SCENE: General Office of "Hull" Limited.

MUSICAL NUMBERS.

- Opening, Humour, "Well Brink".
Song, "Hull's Hull", Molly Fisher & Chorus Song, "Gossiping".
Eve McLennan and Chorus.
Song, "Lushness Garden of Girls" With Hone Fitzpatrick and Chorus.
Dionysus and Adventure, "Adele Cease Song".
"Gullions". Joe Thompson.
Finis, "Goodbye, London".
Full Pompano.
7.50 p.m.—FROM THE STUDIO. Mr. Alex. Wain. "The Reverend" (Humorous).
8.44 p.m.—Mr. Sydney Smith, Jucker, will commence his interesting description of the recent tour of an Approving Institute Team.
9.10 p.m.—Mr. Walli Barrow, comedian.
(a) "Aime's House" (Farce).
(b) "Gals America" (Farce).
9.17 p.m.—Mr. E. F. Kemp, Comedian.
The "Boris Lull" (Comedy).
9.24 p.m.—Alec Williams, Director.
(a) "The Gipsy Road" (Farce).
(b) "Fettership" (Farce).
9.30 p.m.—"Well! Bazaar, comedian—
(a) "Gullions" (Humorous) (by request).
(b) "The Men we are Together" (Comedy).
9.39 p.m.—Mr. Alex. Williams, comedian—
(a) "The Gipsy Road" (Farce).
(b) "Well! Bazaar, comedian."
9.45 p.m.—Mr. E. F. Kemp, vocal solo—"Zebba" (Farce).

Philcos are Aristocrats among Batteries.

8.30 p.m.—FROM THE ROCKDALE TOWN HALL. The second act of the delightful comic opera "THE GIRLS OF GOTTENBERG," produced by the Laing Opera Society by arrangement with J. C. Williamson, Ltd.

MUSICAL NUMBERS:

Duet—"The Birds," Miss Nabei Allen and Walter Goodman.
 Trio—"Specters," Sile Deutchel, Dorothy Meredith, Walter Goodman, and W. B. Gibson.
 Song—"The Ladies' Pet," Ernest Boyd Sampson, "I Love My Love With an A," Clive Carrier.
 Duet—"Two Steps," Olive Carrier and W. H. Gibson.
 Song—"Kulouai," Hilda Smith and Chorus.
 Song—"Begin on the Street," Dorothy Meredith and Chorus.
 Finale.

10.45 p.m.—Late news and announcements.
 10.50 p.m.—Celebrity Reports.
 11.0 p.m.—"Big Ben," FROM THE WENTWORTH CAFE, CHURCH HILL, SYDNEY. The New Wentworth Symphonic Dance Orchestra, conducted by Mr. Sydney Simpson.
 11 midnight—"Big Ben," National Anthem, Close Down.

2BL, SYDNEY

Saturday.

EARLY MORNING SESSION.

7.15 a.m.—G.P.O. clock and chimes.
 7.16 a.m.—Metropolitan weather forecast.
 7.17 a.m.—Musical programme from the studio.
 7.18 a.m.—Physical training and health exercises.
 7.20 a.m.—G.P.O. clock and chimes.
 7.31 a.m.—Hing on health.
 7.36 a.m.—Physical training and health exercises.
 7.45 a.m.—G.P.O. clock and chimes.
 7.48 a.m.—Weather report.
 8.0 a.m.—Broadcasters' special news service.
 8.2 a.m.—G.P.O. clock and chimes.
 Close down.

MORNING SESSION.

11 a.m.—G.P.O. clock and chimes.
 11.25 a.m.—Weather report and forecast by courtesy of the Government Meteorologist.
 11.3 a.m.—Sydney "Daily Telegraph" news service.
 11.35 a.m.—Women's health conducted by Mrs. Jordan—social notes.
 11.40 a.m.—Mrs. Jordan replies to correspondents.
 11.45 a.m.—Talk on "Simple Cooking for Children," by Mrs. Jordan.
 11.5 p.m.—Musical programme from the studio.
 12.15 p.m.—News from the "Sun" Cable Edition.
 12.20 p.m.—G.P.O. clock and chimes.
 12.21 p.m.—Lecture on metal sustains.
 12.25 p.m.—Route to call by wireless.
 12.35 p.m.—Weather report and forecast.
 12.40 p.m.—Shipping information arrivals and departures.
 12.45 p.m.—Information re inter-State and overseas mail.
 1.04 p.m.—News from the "Sun."
 1.06 p.m.—G.P.O. clock and chimes.
 1.10 p.m.—Musical programme from the studio.
 1.15 p.m.—News from the "Sun."
 1.30 p.m.—G.P.O. clock and chimes.
 1.31 p.m.—Musical programme from the studio.
 1.45 p.m.—Talk on sporting and athletic features for the day. Larsson, hockey, golf, bowls, surfing, baseball. During the afternoon sporting information will be broadcast by courtesy of the "Sun" Newspapers interspersed with musical programme from the studio.
 4.00 p.m.—Resume of night's programme.
 5 p.m.—G.P.O. clock and chimes.
 8.1 p.m.—Resume of day's racing.
 8.5 p.m.—Close down.

EARLY EVENING SESSION.

3.45 p.m.—G.P.O. clock and chimes.
 3.46 p.m.—Ugale George and the Kiddie. Ugale will talk to the kiddies.
 3.49 p.m.—Musical programme from the studio.
 4.15 p.m.—Result of all sporting information, including racing, horse tennis, swimmer, sailing, athletics, by courtesy of the "Sun."
 4.20 p.m.—Country news from the "Sun."
 4.24 p.m.—Talk on "The Tour of the Beavers."
 4.30 p.m.—G.P.O. clock and chimes.
 4.31 p.m.—G.P.O. clock and chimes.
 4.32 p.m.—King's Mandolin Orchestra.
 4.33 p.m.—Broadcasting from Maroubra Speedway.
 4.34 p.m.—Mr. Bobby Watson (comedist).
 4.37 a.m.—Broadcasting from Maroubra Speedway.
 4.47 p.m.—Miss Kitty Daigleish (soubrette).
 4.50 p.m.—Resume of following day's programme.
 5.0 a.m.—G.P.O. clock and chimes.
 Weather report and forecast by courtesy of Mr. C. J. Marce, Government Meteorologist.
 5.1 p.m.—King's Mandolin Orchestra.
 5.13 p.m.—Broadcasting from Maroubra Speedway.
 5.22 p.m.—Prings will talk to the Aborigines.
 5.23 p.m.—Miss Bonnie Tarran.
 5.19 p.m.—Broadcasting from Maroubra Speedway.
 5.38 p.m.—Mr. Bobby Watson.
 5.41 p.m.—Miss Kitty Daigleish.
 5.41 p.m.—The Ambassadors dance band broadcast from the ballroom of the Ambassadors. During the intervals between dances news reports by courtesy of the "Sun" will be broadcast.
 12 midnight—G.P.O. clock and chimes.
 National Anthem.

2KY, SYDNEY

Saturday.

EVENING SESSION.

7.15 p.m.—Sporting feature. Complete review of today's racing. Mr. A. B. POWELL.
 8.0 p.m.—News items and late sporting results.
 8.4 p.m.—Pianoforte solo. Miss ALMA HAUGHEY.

NEW ZEALAND STATIONS:

1YA, Auckland, The Radio Broadcasting Co. of New Zealand, Ltd.
 Power 500 Watts; Wave-length, 420 Metres, Silent Night, Monday.
 2YK, Wellington, The Radio Broadcasting Co. of New Zealand, Ltd.
 Power 120 Watts; Wave-length, 295 Metres.
 3YA, Christchurch, The Radio Broadcasting Co. of New Zealand, Ltd.
 Power 500 Watts; Wave-length, 400 Metres, Silent Night, Thursday.
 4YA, Dunedin, The Radio Broadcasting Co. of New Zealand, Ltd.
 Power 750 Watts; Wave-length, 380 Metres.
 2YM, The Gisborne Radio Co., Gisborne.
 Power 50 Watts; Wave-length, 260 Metres.

8.10 p.m.—Sketch. Miss VORLEKOW and BOB CORBEN.
 8.30 p.m.—Musical interlude, Glaciarium Dance Orchestra (Hilly Romanio, Leader. (By kind permission of GRS, IRVING).
 8.0 p.m.—Recital, MR. ROB CORBEN.
 9.15 p.m.—Popular fox-trots.
 9.30 p.m.—Tango solos. Mr. RAY HAMILTON.
 9.40 p.m.—Humorous odds and ends. Mr. HERBERT BEAVER.
 9.50 p.m.—Dance music.
 10.0 p.m.—Closing announcements.

3LO, MELBOURNE

Saturday. MORNING SESSION.

11 a.m.—STUDIO ORCHESTRA: "Mirelle" (soubrette).
 11.10 a.m.—GEORGE WELCH, waxes humorous.
 11.11 a.m.—MAGGIE FORTER, Violin: "Lily of Laguna."
 11.21 a.m.—JONES AND RAINE: "Parody A Bit of Heaven," "Fay of My Radio Days," "Madrasam at Home."
 11.40 a.m.—STUDIO ORCHESTRA: "Coppelia-Ballet Suite."
 11.50 a.m.—HILTON PORTER (at the Rose Marie Co. by permission of J. C. Williamson, Ltd.): "There are seven Mr. Helved (Character-Taylor).
 "She is far from the Land" (Lambert).
 11.57 a.m.—C. B. CHONG, Piano: "Londonderry Air."
 12 noon.—Time signal. British Official Wireless news from Rugby. Reuters and the Australian Press Association Cable Stock Exchange information "Argus" and "Herald" news service.
 12.30 p.m.—STUDIO ORCHESTRA: "The Village Green."
 12.40 p.m.—HILTON PORTER (at the Rose Marie Co. by permission of J. C. Williamson, Ltd.): "Drinks give Wally" (Character-Taylor).
 "Far across the desert sands."
 12.47 a.m.—MAGGIE FORTER, Violin: "Vain Truie."
 "Popular Chorus."
 12.55 p.m.—HASTING AND ADAIR: "Taddy Maloney."
 "Oh Gee, Oh Gee."
 "Nobody Loves Me."
 "Delaney's Drinky."
 1.10 p.m.—STUDIO ORCHESTRA: "Mouquet Truist" (soubrette).
 1.15 p.m.—Meteorological information. Weather reports for Victoria, Tasmania, South Australia, and New South Wales.
 1.20 p.m.—HUGH HUXHAM'S SERENADES: "Floating down the River," EDITH HUXHAM, POLLY BURDETT, RENN MILLAR and HUGH HUXHAM Bass Solo, "Homeward Bound."
 1.25 p.m.—MILLAR SERENADES: "STUDIO ORCHESTRA: "Four Dances" (Soubrette).
 "Tango Solo, "Just of Mine You" (Clive Barker).
 HUGH HUXHAM, STUDIO ORCHESTRA: "Romance" (Soubrette).
 Operatic Quartet, Quartet in "William Tell" (Russian).
 THE SERENADES QUARTET.
 1.50 p.m.—STUDIO ORCHESTRA: "Vienne Melody" (soubrette).
 "Zogza" (York Beauty).
 2.0 p.m.—Description of YANNATHAN BIRDIE-MOONKE VALLEY RACES, by "Muskie" of the "Sporting Globe."
 2.20 p.m.—Description of TALLEPOE HANDICAP MOONKE VALLEY RACES, by "Muskie" of the "Sporting Globe."
 AFTERNOON SESSION.
 3.0 p.m.—Description of SHERWOOD HEAVY WEIGHT HANDICAP, Moonke Valley Races, by "Muskie" of the "Sporting Globe."

8.3 p.m.—JOE ARONSON AND HIS SYNCOPATED SYMPHONISTS.

- "There's a Routman on the Voice" (Eagen).
- "Don't be angry with Me" (Donalson).
- "Mary Lou" (Lyman).
- "Ting-a-Ling Walk on the Balls" (Beret).
- "A Cup of Coffee, a Sandwich and You" (Meyer).
- "Somebody's Lonely" (Davis).
- "I Will Tomorrow" (Van Alstyne).
- "Finchhoff" (Barry).
- "I Don't Want Nobody but You" (Young).
- "Baby Face" (Ains).

8.40 p.m.—Description of MOONBE POUNDS HANDICAP, Mounse Valley Races, by "Mister of the Sporting Globe."

8.45 p.m.—JOE ARONSON AND HIS SYNCOPATED SYMPHONISTS.

- "Let's all Hear Ford."
- "Hello Aloha."
- "A Night of Love."
- "Beside a Garden Wall."
- "Just one more Kiss."
- "Just a Mid-eye view of my old Kentucky Home."
- "Thinking of You."
- "I Wish I had my old Old Back."
- "Rose Marie."

8.48 p.m.—Description of MELBOURNE HANDICAP, Mounse Valley Races, by "Mister of the Sporting Globe."

8.50 p.m.—JOE ARONSON AND HIS SYNCOPATED SYMPHONISTS.

- "On the Riviera."
- "That Night in Araby."
- "Hose after Dini whistled a Tune."
- "Crackin' the Piano."
- "While the stars go drifting by."
- "Serenade."

8.55 p.m.—"Herald" news service. Stock Exchange information. Race results.

9.00 p.m.—Description of PLERENTY HANDICAP, Mounse Valley Races, by "Mister of the Sporting Globe."

9.05 p.m.—Close down.

EVENING SESSION

8.30 p.m.—SPORTING RESULTS.

9.00 p.m.—CHILDREN'S HOUR. Answers to letters and Birthday greetings.

9.15 p.m.—MARGALD GOLDBERS CRACKA. JACK MOUTHOGAN ORCHESTRA. Popular Selections.

9.25 p.m.—LITTLE MISS KOOKABURRA.

Little One! That funny little dangle "Bangle" wants little Miss Kookaburra to tell you how to run away. Alright she will.

9.45 p.m.—ELKIE BRADSHAW. Songs as the Piano for the children.

9.50 p.m.—Little Miss Kookaburra. News about "Card of Holldown School" (Card's secret is exposed).

9.55 p.m.—"Argus" and "Herald" News service. Weather information. Aerial Mail information by the Australian Aerial Services Ltd.

9.42 p.m.—Stock Exchange information Overseas Shipping.

9.45 p.m.—Fish Market reports by J. R. Bennett, Ltd.

9.55 p.m.—Market reports by the Victorian Producers' Cooperative Co. Ltd. Home-market sheep sales. Potatoes and Onions. Market prices of Oranges and Lemons, by the Victorian Central Citrus Association Pty. Ltd. Fruit Market reports by the Victorian Wholesale Fruitwholesalers' Association, compiled by the "Fruit World," exclusive to 41.0.

NIGHT SESSION

Speakers: MR. F. E. ARKINS, MR. F. CHAPMAN, DR. LEACH, LOUIS GYSELER, THE STUDIO ORCHESTRA, JONES AND RAINE, BUXHAM'S SERENADERS, MARIE LE VARRE, Condemne, OSBORNE AND PERRYER, GERTRUDE ARMSTRONG, SIDNEY BURCHALL, Baritone, BRUNSWICK CITY BAND, JOE ARONSON AND HIS SYNCOPATING

SYMPHONISTS.

Accompanist: AGNES FORTUNE
Alto: ALFRED ANDREW

12.15 p.m.—MR. F. E. ARKINS. One of the Motordrums Handicappers.
"Speed Demons—how pace is attained and Motor Pace Racing."

7.30 p.m.—MR. F. CHAPMAN:
"Australian and British Geology Compared."

7.45 p.m.—DR. J. A. LEACH:
"Witton-birds of Patrol."

SOMETHING OLD AND SOMETHING NEW.

2 p.m.—BRUNSWICK CITY BAND, conductor, Mr. HUGH NIVEN:
"Song of Scotland" (Round).

8.15 p.m.—JONES AND RAINE in updated-melody:
"Pitlopha."

Duet. "The Sun will soon be Shining."

8.22 p.m.—BUXHAM'S SERENADERS and the STUDIO ORCHESTRA will entertain you for half an hour with old time selections, Songs, Duets and Quartets.

8.32 p.m.—LOUIS GYSELER, European Champion Musician. Conductor, will speak from the Motordrums.
Description of a Challenge Motor Race Meet Match Race.

8.41 p.m.—BUXHAM'S SERENADERS:
Continuation of Program.

8.48 p.m.—BRUNSWICK CITY BAND:
"The Old Folks."

8.55 p.m.—OSBORNE AND PERRYER say there's nothing new under the sun so they will give you some more.

"Cockney Comedy Caravan."

9.15 p.m.—STUDIO ORCHESTRA, in contemporary old:
Selection, "Lilac Time" (Schubert).

9.25 p.m.—MARIE LE VARRE is very modern:
"Garden of Dreams."

9.31 p.m.—Progress reports of the Royal Automobile Club of Victoria. Dependability Trials.

9.45 p.m.—GERTRUDE ARMSTRONG, The Lassie Fair Glasgow:
"Mrs. Elder's Waltz."

Waltz, "The Wild Rover."

9.55 p.m.—BRUNSWICK CITY BAND:
Prelude, "Children of the Regiment" (Rachmaninoff).

9.55 p.m.—SIDNEY BURCHALL, Baritone, sings some modern ballads:
"Wondering" (Liedt), "Trumpeter" (Dix).

10.2 p.m.—Some up to the minute news. British Official Wireless News. Announcements. Sporting results.

10.15 p.m.—STUDIO ORCHESTRA, in a couple of old time Waltzes:
"Nights of Gladness."

"Thinking."

10.25 p.m.—MARIE LE VARRE, grows humorous:
"Tackling 'em down."

10.35 p.m.—BRUNSWICK CITY BAND:
March, "Washington Post."

10.37 p.m.—SIDNEY BURCHALL, Baritone:
"Prisoner's Sweetheart" (Waltz), "Lonesome Soldier" (Contract).

10.44 p.m.—STUDIO ORCHESTRA:
"San Toy" (Blaney Jance).

10.51 p.m.—Announcements. Sporting results, etc.

10.55 p.m.—GUY GREAT THOUGHT:
"Men of genius do not need in any profession because they labor in it, but they labor in it because they care." (Ralph).

11.1 p.m.—JOE ARONSON AND HIS SYNCOPATED SYMPHONISTS:
"Blowing off Steam."

"No Frolic!"

"Twilight Waltz."

"Then I'll be Home."

"Rose Marie."

"Hindustani Love Call."

"Heady."

"Gimme a Little Kiss, will Ya Rh?"

"Any Joe to-day Lady?"

"Skatons."

"Frasion."

"I'd Climb the Highest Mountain."

11.40 p.m.—GOD SAVE THE KING.

4QG, BRISBANE

Saturday.

NO MIDDAY TRANSMISSION.

AFTERNOON SESSION.

8.30 a.m.—A Motinee for Little Listeners, by "Miss Watah."

4.30 p.m.—Close down.

EARLY EVENING SESSION.

8.25 p.m.—Tune in.

8.30 p.m.—Children's Session—Bedtime Stories, by "Uncle Ben" and "Uncle Jim."

7.45 p.m.—Sparring news.

NIGHT SESSION.

7.30 p.m.—Sailing notes by "Tiler."

7.45 p.m.—From the Observatory: Standard time signal.

7.45 p.m.—Lectures.

VIOLIN RECITAL.

Tonight's programme will consist of a violin recital broadcast from the studio of Mr. Luis Amadeo Pares ("The Hall of the Muses"), Little Roma Street, Brisbane.

During the evening the main motor cycle race will be broadcast from the National Speedway; the time at which this event will take place will be broadcast at the commencement of the evening's programme.

6 p.m.—Instrumental Quartets, "The Magic Flute" (by request—Mozart), Miss Gertrude

Anderson (piano), Mrs. Scott, Miss Marie Wilson and Mr. Luis Amadeo Pares (violin);

violin solo, "La Paloma" (Yradier), Mr. Jack Marnham; violin duet, "Waltz of Minnetonka" (Lourant), Miss Margaret

Anderson and Mr. Luis Amadeo Pares;

tenor solo, selected, Mr. Hamish Craigie;

violin solo, "Alone! In '57" (Beethoven),

Miss Jessie Spillane and Mr. Luis Amadeo

Pares; violin solo, "Oberon" (Wieniawski),

Master Eddie Rusby; soprano solo, "Aria

from "Die Freischutz" (Wagner), Madam

Rubina; baritone solo, "Scottish Folk

Song," Mr. Wermus Chapman; pianoforte

solo, "Prelude" (Ethel Burnes), Miss

Gertrude Anderson; flute and violin duet,

"Aus Wien" (Kreutzer), Miss Paquita Gray

and Mr. Luis Amadeo Pares.

9 p.m.—Metropolitan weather forecast.

(Contracto solo, "Albion With Me" (Liedt),

Miss F. Ware; obituary item, selected,

Mr. Phillip O'Brien; Honor; tenor solo, selected,

Siegfried; violin solo, "On Wings of Song" (Mendelssohn-Achorn), Mr. Luis

Amadeo Pares; tenor solo, "M'Appet" (Flotow),

Mr. Hugh Herald; violin solo, "Somp-

de Belle" (de Beriot), Miss Marion Wilson;

baritone solo, "Paquita," Mr. Fred Pares.

From the Studio:

"The Sunday Mail" news service.

Weather news.

Close down.

5CL, ADELAIDE

Saturday.

MORNING SESSION.

11 a.m.—G.P.O. chimes.

11.1 a.m.—Musical selections from the studio.

11.30 a.m.—"Advertiser" news service.

11.50 a.m.—Market reports.

12 noon.—G.P.O. chimes and close down.



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AFTERNOON SESSION.

- 22.45 p.m.—Relay from the Cheltenham Race course, where a running description will be given by Mr. Arnold Trehear, interspersed with Amateur Broadcasts and the New Broadcasting Station's. Interstitial sporting results.
- 9 p.m.—(approx.) Close down.

EVENING SESSION.

- 6 p.m.—42-P.D. chimes.
- 6.1 p.m.—Dinner music broadcast by "Clement Garden" Orchestra.
- 7 p.m.—Bedtime stories.
- 7.30 p.m.—Market reports by Messrs R. C. Ward and Co., A. W. Sandford and Co., A. E. Hall and Co., Dalgarno and Co., S. A. Farmers' Co-operative Union.
- 7.45 p.m.—Sporting results.
- 8 p.m.—42-P.D. chimes.
- 8.1 p.m.—Concert arranged by Rev. Bernard Tuck, B.A., interspersed with instrumental solo vocal items from the Studio by the (in) visible artists: Mr. D. Finch, Mr. Joe Williams (soprano), H. Saffa (alto-soprano), Miss Vera Wilkinson (soprano).
- 9 p.m.—G.P.D. chimes.
- 10.1 p.m.—Bedtime news.
- 10.30 p.m.—Concert continued.
- 11 p.m.—G.P.D. chimes and close down.

6WF, PERTH

Saturday.

- 12 a.m.—Time in.
- 12.5 p.m.—Musical programme, including broadcast, conducted by MISS EVELYN WILLES, A.R.C.M.
- 13.7 p.m.—First Local News Bulletin. Market reports. Cable news.
- 14 p.m.—Time signal from Perth Observatory.
- 14.15 p.m.—Weather Notes, supplied by the Meteorological Bureau of Western Australia.
- 1.5 p.m.—Time in.
- 2.5 p.m.—Doris Leslie will talk to the kiddies.
- 3.15 p.m.—Sports results supplied by courtesy of "The Mirror," Newcastle Co.
- 3.35 p.m.—Market reports. Cable news, supplied by courtesy of "The West Australian," Newspaper Co.
- 4 p.m.—Time signal from Perth Observatory.
- 4.5 p.m.—Weather Notes, supplied by the Meteorological Bureau of Western Australia.
- CONCERT NIGHT.
- 8.2 p.m.—Musical programme.
- 10 p.m.—Second Local News Bulletin, supplied by courtesy of "The Daily News," Newspaper Co.
- 10.30 p.m.—Close down.

Sunday, March 20

2FC, SYDNEY

MORNING SESSION.

- 10.30 a.m.—Programme announcements and the Bible of St. Mark's.
- 11 a.m.—FROM ST. MARK'S CHURCH OF ENGLAND, DAPHNE POINT. Morning Service. Preacher: The Bishop of London, The Right Hon. and Right Rev. Dr. Wainwright Ingram, K.C.V.O.
- 11.15 p.m.—FROM THE STUDIO. News hour.
- 12.30 p.m.—Close down.

AFTERNOON SESSION.

- 2.35 p.m.—Programme announcements.
- 3 p.m.—FROM THE LYCEUM HALL, PITT STREET, SYDNEY. A Pleasant Sunday Afternoon Concert, arranged by the Central Methodist Mission, Conducted by Rev. F. H. Howard.

- 3.30 p.m.—FROM THE STUDIO.
- A Talk on the Roman Senate by Captain Fred Angus.
- 3.40 p.m.—Close down.

EVENING SESSION.

- 6 p.m.—Big Band and announcements.
- 6.3 p.m.—Items from the Herald by the pupils of Mr. William Dailison, A.R.C.M.: MISS DORIS WOODHEAD, mezzo contralto.
- (a) "The Crown" (Ray).
- (b) "Ave Maria" (Mazetta).
- MR. H. SHAW, tenor.
- (a) "Where's my walk" (Hessop).
- (b) "In Love" (Lohr).
- 6.50 p.m.—A Talk on Hymns, with Organ Illustrations, by Mr. William Adams.
- 7.30 p.m.—Further items from the Herald arranged by Mr. William Dailison, A.R.C.M.: MISS EMILY JARNETT, soprano.
- (a) "The Jewel Song" from "Pavane" (Gould).
- (b) "The Better Land" (Cowell).
- MISS S. BEVEN, contralto.
- (a) "Now Sleeps the Crimson Petal" (Quill).
- (b) "A Little One's Prayer" (Hessop).
- 8.1 p.m.—Continuation of the Illustrated Talk on Hymns by Mr. William Adams.
- 8.42 p.m.—The pupils of Mr. William Dailison, A.R.C.M., in vocal numbers.
- MISS K. McILHATY, soprano.
- (a) "Air de Lila" (Lefault Prodiges' De-Monster).
- (b) "Benedicite" (Philips).
- MR. J. HAINES, baritone.
- (a) "Dear Heart" (Mastie).
- (b) "Here is the Queen" (Bills' Carmel).
- 7.8 p.m.—Continuation of the Illustrated Talk on Hymns by Mr. William Adams.
- 9.15 p.m.—FROM ST. ANDREW'S LUTHERAN, GEORGE STREET, SYDNEY. EVENING SERVICE. Preacher: The Bishop of London, The Right Hon. and Right Rev. Dr. Wainwright Ingram, K.C.V.O.
- 9.25 p.m.—Interval.
- 9.35 p.m.—FROM THE BAND ROTUNDA, MANLY BEACH. A programme by the Manly Municipal Band, conducted by Mr. J. Flewelling. (Songs).
- 9.40 p.m.—2 Trumpet solo, "Polonaise de Concert" (Knappe).
- 9.46 p.m.—8 Fox Trot, "Will You" (Clark).
- 9.50 p.m.—4 Selection, "Lambert" (Veselt).
- 9.55 p.m.—Irish solo from "County Deery" (Gibbins).
- 10.1 p.m.—8 "Shepherd's Hut" (Gibbins).
- 10.15 p.m.—7 Selection, "Little Dutch Girl" (Kahnke).
- 10.20 p.m.—8 Fox Trot, "Ride the Mozart" (Coward).
- 10.30 p.m.—FROM THE STUDIO.
- Miss Helen Fawcett-Webbe, contralto.
- (a) "Friends" (Scott).
- (b) "Break, Break" (Lauriat).
- 9.45 a.m.—Mr. St. Quinton Dwyer makes his first appearance at the Studio, presenting a broadcast programme in connection with the Resurrection Commemoration.
- "Sonata, Appassionata Op. 57."
- 10.1 p.m.—Mr. Ernest Archer, tenor.
- (a) "Little Great Highway" (Coward).
- (b) "Good Night, Beloved" (Balle).
- 10.15 a.m.—Miss Helen Fawcett-Webbe, soprano.
- (a) "Love was once a little boy" (Ward).
- (b) "The Missing Boat" (Old Walek).
- 10.15 p.m.—Mr. Ernest Archer, tenor.
- (a) "As you pass by" (Kahnke).
- (b) "Birds are I love" (Cotton).
- 10.24 p.m.—Mr. St. Quinton Dwyer, pianist. "Funeral March and Rondo" from Grand Sonata in A Flat" Op. 28 (Bethoven).
- 10.30 p.m.—National Anthem.
- Close down.
- At the Piano:—MR. HORACE KEATS.

2BL, SYDNEY

Sunday.

- 10.45 a.m.—Special news service.
- 11 a.m.—Service broadcast from Newtown Congregational Church.

- 3.30 p.m.—Studio concert.
- 4.30 p.m.—Bible Class, conducted by Mr. W. "Calf" Brassey.
- 5.10 p.m.—Children's Service.
- 5.45 p.m.—Service broadcast from Newtown Congregational Church.
- 6.30 p.m.—Broadcasters' trial.
- 7.40 p.m.—Miss Ida Leggat (soprano).
- 8.1 p.m.—Miss C. L. Robertson (alto-soprano).
- 8.50 p.m.—Resume of following day's programme.
- Weather report and forecast by courtesy of Mr. C. J. Murray, Government Meteorologist.
- 9 a.m.—G.P.D. clock and chimes.
- 9.15 p.m.—Mr. Fraser (Cox chorister).
- 9.30 p.m.—Mr. William Wardard (tenor).
- 9.45 p.m.—Broadcasters' trial.
- 10.20 p.m.—Doris Leslie Leggat and Mr. Wm. Howard.
- 10.35 p.m.—Mrs. G. L. Robertson.
- 10.58 p.m.—Mr. William Howard.
- 10.55 p.m.—Miss Ida Leggat.
- 10.55 p.m.—Mr. Ernest Archer.
- 10 p.m.—G.P.D. clock and chimes.
- 10.1 p.m.—Broadcasters' trial.
- 10.11 p.m.—Close down.

2GB, SYDNEY

Sunday.

- 10.20 a.m.—Organ music from St. Albans' Liberal Catholic Church, Redfern.
- 10.30 a.m.—Morning service from St. Albans' (celebration of the Holy Eucharist, Sermon, Catechism).
- 12 noon.—Close down.
- 7.10 a.m.—Music and lecture from Adyar Hall.
- 6.15 p.m.—Dance for two tables with piano accompaniment. Dan Scully, Monica Border, Ada Brock.
- 8.25 p.m.—Songs by Mr. Wm. Green.
1. "Marianne Girl" (Phelan).
2. "Vale" (Kennedy).
- 8.30 p.m.—Piano solo, by Ada Brock.
- 8.40 p.m.—Talk by Mr. J. S. Powell.
- 8.45 p.m.—Music for two violins, with piano accompaniment. Dan Scully, Monica Border, Ada Brock.
- 8.55 p.m.—Songs by Mr. Wm. Green.
1. "Life and Death" (Coleridge Taylor).
2. "Elegiac" (Coleridge Taylor).
- 9 p.m.—Violin solo, by Dan Scully.
- 9.10 p.m.—Music from Studio and close down.

3LO, MELBOURNE

Sunday.

MORNING SESSION.

- 10.30 a.m.—Bells transmitted from St. Paul's Cathedral.
- 11 a.m.—Expansive Train Information and British Official Wireless News.
- 11.6 a.m.—SERVICE FROM CENTRAL METHODIST CHURCH, LEWISDALE STREET, MELBOURNE, CONDUCTED BY REV. J. H. GAIN, Deaconess and Invention.
- Hymns: "O Worship the King all glorious above."
- Prayer.
- Hymns: "Like a sheep given to God's perfect will."
- Sole Scripture Reading, Psalms 75 and 118, ANTHEM.
- Notice and Offering.
- Hymns (children's): "I think when I read that sweet story."
- SELMON.
- Prayer: "Give to the winds thy fears."
- Benediction.
- 12.15 p.m.—Close down.

AFTERNOON SESSION.

- 2.30 p.m.—Pleasant Sunday Afternoon Service from CENTRAL METHODIST CHURCH, LEWISDALE STREET, MELBOURNE, CONDUCTED BY REV. J. H. GAIN, Organist.

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THE ELECTRON WAY



5CL, ADELAIDE

Sunday.

MORNING SESSION.

11 a.m.—G.P.O. chimas.
11.1 a.m.—Relay from Flinders Street Baptist Church, Delina Service.

EVENING SESSION.

8.30 p.m.—G.P.O. chimas.
8.31 p.m.—Sunday service for children.
9 p.m.—Relay from Pine Street Methodist Church, Preacher, Rev. J. G. Jenkins.
8.10 p.m.—(Approx.)—Grand instrumental and vocal concert by S.A.M. Band, assisted by Misses Linda Wallis, Mary Morgan and Mr. Arnold Matters.
9 p.m.—Type announcement.
9.10 p.m.—Mr. P. H. Nichols will talk on "R.L.S."
9.16 p.m.—Concert continued.
10 p.m.—G.P.O. chimas and close down.

Hymn, "Hail to the Lord's anointed."
Prayer, Rev. C. Irving Benson.
Hymn, "Stand up, stand up for Jesus."
Solo, Mr. J. ALEXANDER BROWN, "Close Friends" (Charlow).
Orchestral Solo.
Solo, Mr. J. ALEXANDER BROWN, "You & Mine" (Wallace).
"O Flower of the World" (Zindeni).
Notice, Offering, etc.
Orchestral Selection.
Address, Mr. H. S. Gallist, M.H.R., "The significance of China's awakening."
National Anthem.
Benediction.
8.30 p.m.—Close down.

EVENING SESSION.

8.40 p.m.—CHILDREN'S HOUR: Hymns by THE PIED PIPERS.
Hymn, "Love that will not let us go."
Hymn, "Bright sunlight shone."
8.50 p.m.—"BILLY BUNNY" will tell you more about the "Christmas Carol."
8.50 p.m.—THE PIED PIPERS.
Quartette, "O Hail Thee, my Baby."
Solo and Chorus, "The old Folks."
Piano, "Polonaise" (Chopin).
Two Nature Songs, "Pussy Willow," "Blue Bird."
Solo, "Beautiful Land of my Dreams."
Chorus, "The Angelus."
Good-night Song, "The Land of Nod."
8.55 p.m.—Answer to letters and Birthdays Greetings for "BILLY BUNNY."
8.55 p.m.—"BILLY BUNNY" will continue the story of "David Livingston."
8.45 p.m.—Close down.

NIGHT SESSION.

SERVICE FROM ST. PAUL'S CATHEDRAL, JOE ARONSON'S SYMPHONY ORCHESTRA.
SAFFO ARNAV, Soprano.
SYD L. EATON, Tenor.
Accompanied Solo, AGNES FORTUNE.
Announcement, MAURICE DUDLEY.
8.50 p.m.—Bells transmitted from ST. PAUL'S CATHEDRAL.
7.0 p.m.—SERVICE from ST. PAUL'S CATHEDRAL.
Evening (Choral).
Hymn.
Sentence.
General Confession.
The Absolution.
The Lord's Prayer.
Versicles and Responses.
Psalm.
1st Lesson.
Magnificat.
2nd Lesson.
Ninth Benediction.
The Apostles' Creed.
The Collects.
ANTHEM.
Prayer.
Hymn.
THE SERMON.
Hymn.
The Benediction.

FROM THE STUDIO.

RENEE KELLY'S SPECIAL PROGRAMME.
Glean and Artists Selected by Her.
8.30 p.m.—JOB ARONSON'S SYMPHONY ORCHESTRA.
Overture, "The Merry Wives of Windsor."
8.40 p.m.—SAFFO ARNAV, Soprano, "One Fine Day" (Madame Butterfly (Puccini)). (Renoux).
8.47 p.m.—KEITH, RENEE KELLY, and GWEN BURROUGHS.
"Two Women and a Telephone."
8.5 p.m.—JOE ARONSON AND HIS SYMPHONY ORCHESTRA.
"In a Monastery Garden" (Ketchy).
With Organ Accompaniment.
8.7 p.m.—SYD L. EATON, Tenor, "Open the gates of the Temple" (Scott).
"My Prayer" (Squire).
8.14 p.m.—AUGUST DI GULLIO, Violin Recital.
"Violin and Piano Sonatas in C. Minor, 1st Movement" (Kreisler).
Piano, AGNES FORTUNE.
"Concerto—Second and Last Movement" (Max Bruch).

8.40 p.m.—KEITH, RENEE KELLY and WILTON ALLEN.
"The Way of a Woman."
8.49 p.m.—JOE ARONSON AND HIS SYMPHONY ORCHESTRA.
"Robbers from the Metropolitan Opera House" (Tobari).
7.50 p.m.—"Argus" news service. Meteorological information.
10.4 p.m.—SAFFO ARNAV, Soprano.
"Milita's Song" La Boheme (Puccini).
10.11 p.m.—JOE ARONSON AND HIS SYMPHONY ORCHESTRA.
Trumble Solo, "Serenade" (Schubert). With Orchestral Accompaniment.
10.14 p.m.—SYD L. EATON, Tenor.
"Arts' Every Valley" (Handel).
"Recitative, 'Comfort Ye'" (Handel).
10.23 p.m.—JOE ARONSON AND HIS SYMPHONY ORCHESTRA.
"Remembrance of the Plantation" (Chambers).
10.30 p.m.—OUR GREAT THOUGHT.
"The continual utterance of thought, by speech or action, to any end, is art."
—Kierkegaard.
10.31 p.m.—GOD SAVE THE KING.

4QG, BRISBANE

Sunday.

MORNING SESSION.

CHURCH SERVICE.

The complete morning service will be relayed from St. Andrew's Church of England, South Brisbane.
10.50 a.m.—Organ music. Mr. E. W. Taylor.
11 a.m.—Morning Prayer and Holy Communion. Psalms, 119 verses 7-114, hymns (ancient and modern)—40, "Our Head Redeemer," 219 "O Lord, O God Owee" 129 "Give us, O Lord, to Jesus," 222 "Apl Now, O Father," 191 "The King of Love" (Preacher, the Rector).
Close down.

AFTERNOON SESSION.

BAND CONCERT.

The concert provided in the Botanic Gardens, Brisbane, will be relayed.
8.35 p.m.—Band concert.
8.30 p.m.—Close down.

NIGHT SESSION.

CHURCH SERVICE.

The complete Evening Service will be relayed from St. Andrew's Church of England, South Brisbane.
7.10 p.m.—Organ music.
7.30 p.m.—Evening—Psalms 119, verses 265-344, "The Story of the Cross" (Stainers) hymns—94 "Lord in This Thy Mercy's Day," 91 "Christian, Dost Thou See Them," 104 "When I Survey the Wondrous Cross," etc. (for short) (Preacher, "Blessed Father, in Thy Mercy" organ selection, Preacher, the Rector).

BAND CONCERT.

At the conclusion of the Church Service the Concert provided by the Brisbane Municipal Council Band will be relayed from Wickham Park.
The programme will include—Grand march "Air Militaire" (Ordningslegel), overture, "Ten Maids" (Suppe); fantasia, "Forest Fancies" (Demare), selection from "Sybil" (Jarvis).
8.50 p.m.—Close down.

6WF, PERTH

Sunday.

MORNING SESSION.

10.45 p.m.—Type in.
11 a.m.—Morning service relayed from the Lake Street Church of Christ, Perth.
Conductor, MR. THOS. KALGOSER.
11.15 p.m.—Type in.
11.20 p.m.—Lionel Col. Le Snow, will give a short talk on "Bodies of the Zepherus."
11.25 p.m.—R.S. Band and Vocal Concert relayed from the Zoological Gardens, South Perth.
Conductor, MR. GEO. E. MELLOR.
8 p.m.—Close down.
7.5 p.m.—Type in.
7.55 p.m.—Children's Devotion Stories.
7.58 p.m.—Evening Service relayed from the Museum Street Baptist Church, Perth.
Preacher, REV. HARRY REEVE.
8.45 p.m.—Perth City Band and Vocal Concert relayed from the Government Gardens, Perth.
Conductor: MR. W. A. HALVORSEN.

Monday, March 21

2FC, SYDNEY

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.
7.30 a.m.—Studio music.
7.39 a.m.—Official weather forecast, rain/all, temperatures, astronomical, meteorological, shipping intelligence, mail services, commercial news service.
7.55 a.m.—Investment market, minor share market, metal quotations.
8.00 a.m.—Wool sales, produce markets.
8.10 a.m.—Perth City Band and Vocal Concert relayed from the Government Gardens, Perth.
Conductor: MR. W. A. HALVORSEN.

MORNING SESSION.

9.30 a.m.—Marching music for school children.
9.40 a.m.—Studio music.
10 a.m.—"Big Ben" and announcements.
10.35 a.m.—Late "Sydney Morning Herald" news service.
10.50 a.m.—Studio music.
10.45 a.m.—Last minute relay information by the IFC Basing Commissions.
11 a.m.—Perth City Band and Vocal Concert relayed from the Government Gardens, Perth.
Conductor: MR. W. A. HALVORSEN.
11.10 a.m.—Studio music.
11.20 a.m.—A serial story.
11.30 a.m.—Marching music for school children.
11.35 a.m.—Close down.

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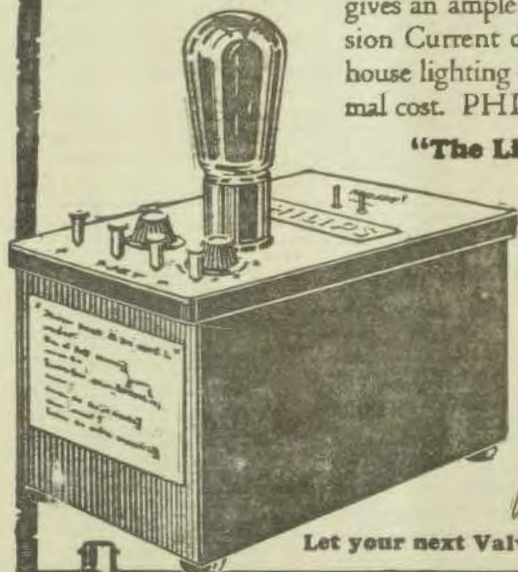
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LAMPS AND RADIO



MIDDAY SESSION.

- 12 noon.—By Day and announcements.
12.5 p.m.—Stock Exchange first call.
12.55 p.m.—Studio music.
12.58 p.m.—Daily wireless news.
12.59 p.m.—Miss Alice Peters, soprano ("At My Window" (Parker)).
1 p.m.—"Big Ben" Weather Intelligence.
1.05 p.m.—"Evening News" midday news service.
Producers Distributing Society's report.
1.27 p.m.—Studio music.
1.28 p.m.—Stock Exchange second call.
1.30 p.m.—Marching music for school children.
1.40 p.m.—Miss Alice Peters, soprano ("Through a Veil" (Cadyman)).
1.45 p.m.—Studio music.
2 p.m.—"The Sun" (Class news).

AFTERNOON SESSION.

- 2.20 p.m.—Announcements.
2.25 p.m.—A vocal recital arranged by Mr. Cyril Monk.
3 p.m.—A talk on literature by Miss Thea Canning, the well-known Australian author, on the subject, "What the Old Masters Meant."
3.15 p.m.—Vocal items by the pupils of Mr. Cyril Monk.
3.30 p.m.—Marching music for school children.
3.40 p.m.—FROM FARMER'S TEA ROOMS: Miss Cecily's children's recital: "Homing" (Hemp).
3.45 p.m.—FROM THE STUDIO: Popular recital: "The Sun" (Hemp).
3.55 p.m.—Miss Sylvia Sheridan, mezzo ("Kismet" (de la Salle) (Thomas)).
4 p.m.—FROM FARMER'S TEA ROOMS: Miss Jocelyn Rooney, contralto; "Soubrette" and "Blossoms" (Bromfield).
4.25 p.m.—Pianoforte solo.
4.35 p.m.—Miss Sylvia Sheridan, mezzo ("Dances" (Hemp)).
4.40 p.m.—FROM FARMER'S TEA ROOMS: Miss Cecily's children's recital: "The Blue Fairy" (Aronold).
4.45 p.m.—Organ solo.
4.50 p.m.—FROM FARMER'S TEA ROOMS: Miss Jocelyn Rooney, contralto: "Fruit in the Clock" (Mallinson).
4.55 p.m.—Stock Exchange third call.
4.58 p.m.—"The Sun" (Class news).

EARLY EVENING SESSION.

- 4.45 p.m.—The Chimes of 2 P.M.
4.50 p.m.—The "Hello-Mike" talks to the children.
5.05 p.m.—A serial story for the older ones.
5.10 p.m.—Dance music.
Miss Sylvia Sheridan, mezzo: (a) "Prigues to send" (Cockburn). (b) "Hargrove Song" (Preston).
5.20 p.m.—"Big Ben" Late evening news.
5.30 p.m.—Daily's market reports (wheat, wheat and stock).
5.35 p.m.—Fruit and vegetable market.
5.38 p.m.—Weather and shipping intelligence.
5.45 p.m.—"Evening News" news service.

NIGHT SESSION.

- 5.45 p.m.—Programme announcements.
5.50 p.m.—A talk by Mr. E. J. Van de Velder: "How to Photograph the Duke's Arrival."
6 p.m.—"Big Ben" FROM THE HAYMARKET THEATRE, GEORGE STREET, SYDNEY. Items by the Orchestra, conducted by Mr. Stanley Porter.
6.10 p.m.—FROM THE STUDIO: Miss Margaret James, soprano: "The Pines of Dan" (Monsieur).
6.15 p.m.—The Rev. W. H. Hayward outlines the talk on the "Art of Speaking."
6.30 p.m.—Orchestra items from the HAYMARKET THEATRE, GEORGE STREET, SYDNEY.
6.40 p.m.—FROM THE STUDIO: Mr. Victor Guerin, in Comic Opera Memorabilia.
6.45 p.m.—Mr. Frank Lewis, trombone solo: "Silver Threads" (Dunlop).
6.50 p.m.—Mr. W. F. Kay, solo on "Immortality of the Soul" (Song).
6.55 p.m.—FROM THE HAYMARKET THEATRE, SYDNEY. Vocal solo by Mrs. Jordan: "At My Window" (Parker).
7 p.m.—Miss Margaret James, soprano: "A Birthday" (Grove).
7.10 p.m.—The "FOUR WAIFS" Male Quartette: (a) "Hello! How are you?" (Cockburn). (b) "Goodbye" (Hemp). (c) "Alone in the Street" (Parker).
7.15 p.m.—Mr. Frank Lewis, trombone solo: "The Girl" (Henderson).
7.20 p.m.—Miss Sylvia Sheridan, mezzo.
7.25 p.m.—FROM THE HAYMARKET THEATRE, GEORGE STREET, SYDNEY. Items by the Operatic Orchestra under the baton of Mr. Stanley Porter.
7.30 p.m.—FROM THE STUDIO: Miss Margaret James, soprano.
7.35 p.m.—THE FOUR WAIFS, male quartette: (a) "A Good-bye" (Dunlop). (b) "Where the Great Red Devil Dwells" (Sharp). (c) "March of the Cold Guards" (Arr.). (d) "A. M." (Mr. Victor Guerin, in Comic Opera Memorabilia).
7.40 p.m.—Mr. Frank Lewis, trombone solo: "A Perfect Day" (Hemp).
7.45 p.m.—Miss Sylvia Sheridan, mezzo.
7.50 p.m.—FROM THE HAYMARKET THEATRE, GEORGE STREET, SYDNEY. Items by the Operatic Orchestra under the baton of Mr. Stanley Porter.
7.55 p.m.—FROM THE STUDIO: The FOUR WAIFS, male quartette: (a) "Lullaby" (Alison). (b) "Cry of the Penitent" (Hemp). (c) "Ode to the Silly Night" (Hemp).
8.00 p.m.—FROM THE WESTWORTH CAPE, GEORGE HILLS, SYDNEY: The Westworth Symphony Dance Orchestra, under the baton of Mr. Sydney Simpson.
8.05 p.m.—FROM THE STUDIO: THE FOUR WAIFS, male quartette: (a) "Cry of the Dumb" (Kane & Julian). (b) "Hush" (Hemp). (c) "Ode to Jungel" (Hemp).
8.10 p.m.—"Big Ben" and announcements.
8.15 p.m.—FROM THE WESTWORTH CAPE, GEORGE HILLS, SYDNEY: The Westworth Symphony Dance Orchestra, conducted by Mr. Sydney Simpson, will play popular numbers until midnight.
8.20 p.m.—"Big Ben" National Anthem. Close down.

- 6.45 p.m.—Mr. Frank Lewis, trombone solo: "Silver Threads" (Dunlop).
6.50 p.m.—Mr. W. F. Kay, solo on "Immortality of the Soul" (Song).
6.55 p.m.—FROM THE HAYMARKET THEATRE, SYDNEY. Vocal solo by Mrs. Jordan: "At My Window" (Parker).
7 p.m.—Miss Margaret James, soprano: "A Birthday" (Grove).
7.10 p.m.—The "FOUR WAIFS" Male Quartette: (a) "Hello! How are you?" (Cockburn). (b) "Goodbye" (Hemp). (c) "Alone in the Street" (Parker).
7.15 p.m.—Mr. Frank Lewis, trombone solo: "The Girl" (Henderson).
7.20 p.m.—Miss Sylvia Sheridan, mezzo.
7.25 p.m.—FROM THE HAYMARKET THEATRE, GEORGE STREET, SYDNEY. Items by the Operatic Orchestra under the baton of Mr. Stanley Porter.
7.30 p.m.—FROM THE STUDIO: Miss Margaret James, soprano.
7.35 p.m.—THE FOUR WAIFS, male quartette: (a) "A Good-bye" (Dunlop). (b) "Where the Great Red Devil Dwells" (Sharp). (c) "March of the Cold Guards" (Arr.). (d) "A. M." (Mr. Victor Guerin, in Comic Opera Memorabilia).
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8.15 p.m.—FROM THE WESTWORTH CAPE, GEORGE HILLS, SYDNEY: The Westworth Symphony Dance Orchestra, conducted by Mr. Sydney Simpson, will play popular numbers until midnight.
8.20 p.m.—"Big Ben" National Anthem. Close down.

- 11.52 a.m.—Shipping information—arrival and departure.
11.55 a.m.—Women's Section. Talk on "Kicker" by Miss Gwen Varley. Broadcasters' Women's Sports Authority.
11.58 a.m.—Scott's review by Mrs. Jordan.
11.59 a.m.—Mrs. Jordan replies to correspondence.
12 a.m.—Talk by Mrs. Jordan on "Moanous Disk."
12.30 p.m.—G.P.O. Clock and chimes.
12.31 Sydney Stock Exchange calls.
12.32 p.m.—"Sun" News from News Service.
12.45 p.m.—Hilliers' Instrumental Quartet—direction—Gary Gostling.
1.30 p.m.—G.P.O. clock and chimes.
1.31 p.m.—Weather report and forecast.
1.32 p.m.—Sydney Stock Exchange calls.
1.33 p.m.—News from the "Sun."
1.45 p.m.—Musical programme from the studio.
2 p.m.—G.P.O. clock and chimes. Close down.

AFTERNOON SESSION.

- 2.20 p.m.—Broadcast information broadcast by courtesy of the "Sun."
2.30 p.m.—G.P.O. clock and chimes.
2.31 p.m.—Weather report.
2.32 p.m.—"Sun" News from the "Sun."
2.4 p.m.—News from the "Sun."
2.45 p.m.—Musical programme from the studio.
2.46 p.m.—Musical programme from the studio.
2.47 p.m.—News from the "Sun."
2.48 p.m.—Musical programme from the studio.
2.49 p.m.—Serial Story entitled "The Barrowed Sheep."
2.50 p.m.—G.P.O. clock and chimes.
2.51 p.m.—Musical programme from studio.
2.52 p.m.—Producers' Distributing Society's Vegetable and Fruit Market report.
2.55 p.m.—Shipping information where available.
2.56 p.m.—"Big Ben" racing results on race days.
2.58 p.m.—News from the "Sun."
2.59 p.m.—Results on night's programme.
3 p.m.—G.P.O. clock and chimes. Close down.

EARLY EVENING SESSION.

- 4.45 p.m.—G.P.O. Clock and chimes.
4.46 p.m.—"Uncle George and the Kiddies."
4.48 p.m.—Musical programme from the studio.
4.50 p.m.—G.P.O. clock and chimes.

SPECIAL COUNTRY SESSION.

- 7.00 p.m.—G.P.O. clock and chimes.
7.01 p.m.—Australian Mercantile, Land and Finance Co's Report.
Weather report.
Producers' Distributing Society's Fruit and Vegetable Market report.
Shipping Exchange Report.
7.05 p.m.—The National Report "Sun."
Daily Produce Report "Sun."
Primary Producers' Newspaper report on London Butler Market.
7.10 p.m.—Books and News from the "Sun."
7.30 p.m.—Country News from the "Sun."

EVENING SESSION.

- 8 p.m.—G.P.O. Clock and chimes.
Broadcasters' Tiptical chorus.
8.1 p.m.—The Newtown Band Regiment from Industrial Hill, Newtown.
8.15 p.m.—Mr. Raymond Beatty (Piano).
8.20 p.m.—Mr. Rex Harrison, (Comedian).
8.25 p.m.—Miss Millie Hughes, (soprano).
8.30 p.m.—Mr. Phil Montague, (comedian).
8.35 p.m.—Duet: Miss Millie Hughes & Mr. Raymond Beatty.
8.38 p.m.—Return of following day's programme. Weather report and forecast by courtesy of Mr. C. J. Mars, (Gert. Meteorologist).
8.40 p.m.—G.P.O. Clock and chimes.
8.41 p.m.—Professor Harold Woodhouse (tenor).
8.45 p.m.—Miss Max Fotheringham, (soubrette).
8.50 p.m.—The Newtown Band.
8.55 p.m.—Mr. Raymond Beatty.
8.58 p.m.—Mr. Rex Harrison.
8.59 p.m.—Miss Millie Hughes.
9.00 p.m.—Mr. Phil Montague.
9.05 p.m.—Professor Harold Woodhouse.
9.10 p.m.—Miss Max Fotheringham.
9.15 p.m.—The Ambassador Dance Band broadcast from the ballroom of the Ambassador. During the intervals between dances—reports by courtesy of the "Sun" will be broadcast.
10 midnight—G.P.O. clock and chimes. National Anthem.

2BL, SYDNEY

Monday.

EARLY MORNING SESSION.

- 7.10 a.m.—G.P.O. clock and chimes.
7.15 p.m.—Metropolitan weather forecast.
7.25 p.m.—Musical programme from the studio.
7.30 a.m.—Physical training and health exercises.
7.35 a.m.—G.P.O. Clock and chimes.
7.40 a.m.—Hills of health.
7.45 a.m.—Physical training and health exercises.
7.50 a.m.—G.P.O. clock and chimes.
7.55 a.m.—Weather report.
8.00 a.m.—Broadcasters special news service.
8 a.m.—G.P.O. clock and chimes. Close down.

MORNING SESSION.

- 9 a.m.—G.P.O. clock and chimes.
9.05 a.m.—Weather report.
9.10 a.m.—Musical programme from the studio.
9.15 a.m.—News service from the Daily Telegraph.
9.20 a.m.—Musical programme from the studio.
9.25 a.m.—G.P.O. Clock and chimes.
9.30 a.m.—News from the "Daily Telegraph."
9.35 a.m.—Robert Marlow Report.
9.40 a.m.—Fish Market Report.
9.45 a.m.—Vegetable Market Report.
9.50 a.m.—Fruit Market Report.
9.55 a.m.—London Daily News, Exp. and Country Market Report.
10 a.m.—"Shine in" call by wireless.
11.30 a.m.—Information re Interstate and Overseas Mail.

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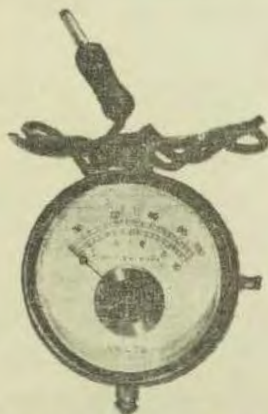
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2GB, SYDNEY

Monday.

MORNING SESSION.

Cheerio Hour conducted by Mr. J. K. Powell.
 9 a.m.—Music.
 9.5 a.m.—Psychological class.
 9.15 a.m.—Music.
 9.25 a.m.—Biographical talks for schools.
 9.40 a.m.—Music.
 9.45 a.m.—Close down.

AFTERNOON SESSION.

3.30 p.m.—Music.
 3.45 p.m.—Talk.
 4 p.m.—Music.
 4.5 p.m.—Talk.
 4.15 p.m.—Music.
 4.20 p.m.—Talk.

EVENING SESSION.

6.30 p.m.—Children's music, conducted by Mr. J. K. Powell.
 7.15 p.m.—Music.
 7.20 p.m.—Address by the Rt. Rev. G. B. Arundale: "Do you really want to be Happy?"
 7.30 p.m.—Music from Scandinavia.
 7.45 p.m.—Duets for two voices with piano accompaniment. Dan Scully, Monica Hoeder, Ada Brook.
 8 p.m.—Address by Professor Wood.
 8.15 p.m.—Violin and Piano Sonata, by Grieg.
 Artists: Monica Hoeder, Ada Brook.
 8.30 p.m.—Songs by Miss Eva Crill.
 8.40 p.m.—Duets for two voices, with piano accompaniment. Dan Scully, Monica Hoeder, Ada Brook.
 8.54 p.m.—Announcements.
 9 p.m.—Topsy talk.
 9.15 p.m.—An half hour with the Glenani Hoarding Quartette Party.
 Selections from opera.
 9.47 p.m.—Piano solo. Ada Brook.
 9.55 p.m.—Cheerio talk.
 10 p.m.—Great thoughts from great minds.

2KY, SYDNEY

Monday.

LUNCHEON HOUR SESSION.

12.15 p.m.—Tune-in to the ticking of the clock.
 12.15 p.m.—Musical Favourites, "Ophiusa" Gramophone.
 12.25 p.m.—Musical interlude.
 12.35 p.m.—News Items.
 1.0 p.m.—Vocal items.
 1.15 p.m.—Hawkins Steel Guitar Selections.
 1.25 p.m.—Union News and Meetings.
 1.30 p.m.—Lunch Records.
 1.40 p.m.—Wishes to go to-night.
 1.45 p.m.—Closing announcements.

EVENING SESSION.

7.30 p.m.—Tune-in to the ticking of the clock.
 7.45 p.m.—News Items.
 7.48 p.m.—Sporting talk. Mr. A. J. HOYD (Sporting Editor Sydney "Sportman" and "Truth").
 7.50 p.m.—"Hands Off China" Campaign, Mr. J. S. GARDEN.
 8.0 p.m.—Pianoforte solos. Mr. ESME DEHILL, L.L.C.M.
 8.10 p.m.—Violin solos. Mr. E. BIRRELL.
 8.15 p.m.—Popular numbers. Mr. HALL PRINCE.
 8.20 p.m.—Musical interlude, introducing latest dance numbers.
 8.45 p.m.—Review of Life and Works of the Great Composers' songs, arranged and presented by Mrs. GEO. F. MASIEL.

8.47 p.m.—The Life of Composer.
 9.0 p.m.—The Works of the Composer.
 9.10 p.m.—Musical Illustrations from the Works of Composer.
 9.20 p.m.—Tener Solos. Mr. RAY HAMILTON.
 9.35 p.m.—Pianoforte solos. Mr. NORMAN A. PULLING.
 9.40 p.m.—Musical Interlude. MRS. MELBODY MAKER (W. A. McMULLEN, leader).
 10.0 p.m.—Closing announcements.

3LO, MELBOURNE

Monday.

MIDDAY SESSION.

THE STUDIO ORCHESTRA.

MAGGIE FOSTER, Violin.
 CHEEK HAYES, The Talkative Chap.
 OWEN TRAPPEE, Baritone.
 KEITH DESMOND, Elocutionist.
 HASTINGS AND ADAIR, Accountant.
 AGNES FORTUNE, Announcer.
 ALFRED ANDREW, 15 noon—Time Signal, British Official Wireless News from Rugby, Reuters and the Australian Press Association Tables; Stock Exchange Information; "Argus" and "Herald" News Service.
 12.40 p.m.—STUDIO ORCHESTRA.
 "Suite Melodique" (Friml).
 12.45 p.m.—HASTINGS AND ADAIR, in a little concert.
 12.50 p.m.—MAGGIE FOSTER, Violin.
 "The Hoary."
 "Popular Melodies."
 12.57 p.m.—Join in a little fun with CHEEK HAYES.
 1.0 p.m.—STUDIO ORCHESTRA.
 "Dancer Fantasy" (Lasko).
 1.14 p.m.—Meteorological Information; Shipping Intelligence; Weather Forecast for Victoria, Tasmania, South Australia, and New South Wales; Ocean Forecast; River Reports.
 1.20 p.m.—MAGGIE FOSTER, Violin.
 "Londonderry Air."
 "Mairica."
 1.27 p.m.—OWEN TRAPPEE of the Rose Marie Co., by permission of J. C. Williamson, Ltd.
 "Angus Guard Thro' (Godard)."
 "Alouet" (Metzler).
 1.34 p.m.—KEITH DESMOND Elocutionist.
 "The Pivotal of Li Fang Yu."
 1.40 p.m.—STUDIO ORCHESTRA.
 "Turkey in the Straw" (Gaiety).
 "Suite Danzard" (Rosen).
 2.0 p.m.—Close Down.

AFTERNOON SESSION.

Speakers:
 MRS. DOROTHY SILK, MISS FLORA PELL.
 THE STUDIO ORCHESTRA.
 MAEY WADE, Soprano.
 IAN DEVEREUX, Baritone.
 TASHA TIERNAN, Cello.
 OSBORNE and PERRYER, Accompanist.
 AGNES FORTUNE, Announcer.
 ALFRED ANDREW, 3.0 p.m.—STUDIO ORCHESTRA.
 "Humoresque" (Kargnad).
 "Prelude" (Laskov).
 3.10 p.m.—MRS. DOROTHY SILK, Honorary.
 3.15 p.m.—MARY WADE, Soprano, of the "Rose Marie Co.," by permission of J. C. Williamson, Ltd.
 "Sing, Sing Blackbird" (Phillips).
 "Rosebud" (Ardill).
 3.32 p.m.—STUDIO ORCHESTRA.
 Overture, "Fingal's Cave" (Mendelssohn).
 3.42 p.m.—OSBORNE AND PERRYER, are here again.
 3.45 p.m.—IAN DEVEREUX, of the "Rose Marie Company," by permission of J. C. Williamson, Ltd.
 "My Dream" (Toetti).
 "Mullinetto" (Leccevallo).
 4.0 p.m.—STUDIO ORCHESTRA.
 "Anonnette Petite Valse" (Klemm).
 "The Sleeping Beauty" (Bergman).
 4.10 p.m.—MARY WADE, Soprano.
 "From a Lattice Window" (two songs).

4.17 p.m.—TASHA TIERNAN, Cello.
 "Sunderland" (Huck).
 "Andante" (Gluck).
 4.22 p.m.—IAN DEVEREUX, Baritone.
 "I will not know" (Trotter).
 "King Charles" (Maude Valerie White).
 4.30 p.m.—MISS FLORA PELL, (Inspector of Schools, Education Department; Domestic Economy).
 4.40 p.m.—"Herald" News Service; Stock Exchange Information.
 4.40 p.m.—Close down.

EVENING SESSION.

6.40 p.m.—CHILDREN'S HOUR. Answers to letters and Birthday Greetings.
 6.55 p.m.—ALMA HORLOCK, Soprano.
 "To a miniature."
 "The Night Nursery" (Arundale).
 6.72 p.m.—THELMA READY, Banjo Solos for the children.
 6.92 p.m.—"Little Miss Kookaburra"—for the big ones. Who you like to hear about a dear little kitten named "Skurry," who "Joined the soufs."
 6.95 p.m.—ALMA HORLOCK, Soprano.
 "Three Green Bonnets."
 "Comin' thro' the Rye."
 6.12 p.m.—"Little Miss Kookaburra" will tell the older ones more about "Carol of Holler-gene School."
 6.35 p.m.—"Argus" and "Herald" News Service; Weather and Aerial Mail Information by the Aerial Services, Ltd.
 6.40 p.m.—Stock Exchange Information; Overseas Shipping.
 6.45 p.m.—Fish Market Reports by J. K. Borrett, Ltd.
 6.51 p.m.—River Reports.
 6.54 p.m.—Market reports by the Victorian Produce Co-operative Co., Ltd.; Hay-market Sheep Sales; Poultry; Grain; Hay; Cattle; Straw; Jute; Dairy Produce; Potatoes and Onions.
 7.0 p.m.—Market prices of Oranges and Lemons by the Victorian Central Citrus Association, Pty. Ltd.; Fruit Market reports by the Victorian Wholesale Fruitgrowers Association, compiled by the "Fruit World," exclusive to 3LO.

NIGHT SESSION.

Speakers:
 MR. C. W. GAME, MR. E. C. E. TAYLOR, MR. H. C. WILSON, MR. NORMAN McCANCE.
 VICTORIAN RAILWAYS MILITARY BAND.
 E. MASON WOOD, Baritone.
 ETHEL HEANEY, Soprano.
 JOE ARONSON AND HIS SYNCO SYMPHONISTS.
 Accompanist AGNES FORTUNE
 Announcer ALFRED ANDREW
 7.55 p.m.—Under the auspices of the Boy Scouts Association, Mr. C. W. GAME, "Talk to Country Troops."
 7.58 p.m.—MR. E. C. E. TAYLOR, School Life and Sports.
 7.58 p.m.—Under the auspices of the Department of Agriculture, Mr. H. C. WILSON, "Machinery—State Research Farm, Werribee."
 "Dividing and Fencing the Farm."
 8.0 p.m.—VICTORIAN RAILWAYS MILITARY BAND.
 "Ora Death."
 8.1 p.m.—E. MASON WOOD, Baritone.
 "The Cobbler's Song" (Norton).
 "Tale Moon" (Tosca).
 8.14 p.m.—NORMAN McCANCE, Bridge.
 8.34 p.m.—VICTORIAN RAILWAYS MILITARY BAND.
 "Ora Death."
 March "Letter Carriers."
 8.48 p.m.—ETHEL HEANEY, Soprano.
 "Keep on Hoping."
 "March by Andrew" (di Capua).
 8.54 p.m.—EAST LYNNE, Adapted and Produced by Mr. Harding Trauer.

Francis Lawson Basilby Turner
 Archibald Carlyle Norman Simpson
 Lord Robert Sowerby P. L. Julian
 Justice Harve John Ferde
 Richard Harve Sidney Burrell
 Mr. Hill Edwin Lester
 Father O'Connell Bradford Fowler
 Little Wulle Elsie Forrester



Valves with the Wonderful P.M. Filament

THE wonderful P.M. Filament offers you three times more for your money. It is so tough that even after 1,000 hours life it can be tied in knots and cannot be broken except by the very roughest handling—*result, safety against accidents.*

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THE WONDERFUL P.M. FILAMENT

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THE P.M.3 (General Purpose) 0.1 amp. 13.8

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JOHN ARNOLD
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DELGAVES STREET, MELBOURNE

Reasons for the Popularity of the Pilot Parts

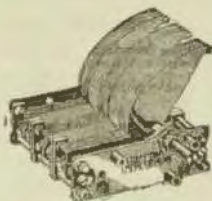
The Pilot Electric Manufacturing Coy. is the Largest Radio Parts Manufacturing Company in the World, and can produce all Standard Radio Set Parts of sturdy and reliable types at prices which no other manufacturers can compete with

The Pilot Kilograd vernier dial—calibrated both clockwise and anti-clockwise on the one dial—moulded in pure bakelite—with friction control—absolutely no backlash, and only .0/9



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No. 1813, 13 plate	£0 11 3
No. 1817, 17 plate	0 12 6
No. 1823, 23 plate	0 14 6
No. 8117-2, 17 plate double condenser	1 14 6
No. 8117-3, 17 plate triple Condenser	2 1 3



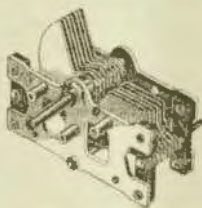
PILOT CONDENSERS.

Straight Line Broadcast.

No. 9113, 13 plate	£0 11 3
No. 9117, 17 plate	0 12 6
No. 9123, 23 plate	0 14 6

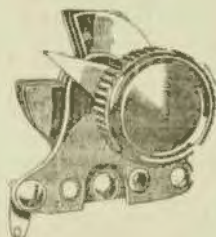
Straight Line Frequency, Aluminium Plate.

No. 7113, 13 plate	£0 11 3
No. 7117, 17 plate	0 12 6
No. 7123, 23 plate	0 14 6



No. M.7. Mid-geet condensers, 7 plate 5/6.

No. M.7. Mid-geet condensers, 13 plate 6/6.



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Pilot Single Circuit Jack No. 1161	£0 2 3
Pilot Double Circuit Jack, No. 1162	0 2 6
Pilot Single Filament Control Jack, No. 1163	0 2 3
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No. 906, 6 ohm Rheostat	0 3 6
No. 910, 10 ohm Rheostat	0 3 6
No. 920, 20 ohm Rheostat	0 3 6
No. 930, 30 ohm Rheostat	0 3 6
No. 200, 200 ohm Potentiometer	0 5 3
No. 400, 400 ohm Potentiometer	0 5 0

PILOT ISOGRAD MOULDED CONDENSERS.

.	s. d.
.001	2 3
.002	2 9
.003	3 3
.0005	2 6
.00025	2 6
.000125 with clips	2 9



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MIDDAY SESSION.

- 11 noon.—"Big Ben" and announcements.
 12.30 p.m.—Stock Exchange and financial.
 13.00 p.m.—Clock Exchange and rail.
 13.30 p.m.—Studio music.
 13.50 p.m.—Rugby wireless news.
 1.15 p.m.—"The Three Little Pigs" (mezzo).
 (April a Lady) (Philips).
 1 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.
 1.30 p.m.—Stock Exchange, second call.
 1.40 p.m.—Marching music for school children.
 1.45 p.m.—Miss Helen Crowder, soprano.
 "As for you" (Eustache Martin).
 1.46 p.m.—Studio music.
 2 p.m.—"Big Ben" close down.

AFTERNOON SESSION.

- 2.30 p.m.—Programme announcements.
 2.35 p.m.—Radio music.
 2 p.m.—"Big Ben" A reading.
 3.25 p.m.—Studio music. Popular records.
 3.30 p.m.—Marching music for school children.
 3.40 p.m.—FIDDL FARMER'S TEA ROOMS.
 Miss Beatrice Kendall, mezzo.
 "The Birds go North Again" (Willetts).
 3.45 p.m.—Studio music.
 4 p.m.—FROM FARMER'S TEA ROOMS.
 Miss Helen Crowder, soprano.
 "A Spring Awakening" (Caley).
 4.25 p.m.—Studio music.
 4.30 p.m.—FROM FARMER'S TEA ROOMS.
 Miss Beatrice Kendall.
 "Drift, Drift Down" (Ronald).
 4.35 p.m.—Studio music.
 4.40 p.m.—A reading.
 4.45 p.m.—FROM FARMER'S TEA ROOMS.
 Miss Helen Crowder.
 "The Little Gray Dove" (Saar).
 4.45 p.m.—Stock Exchange, third call.
 4.55 p.m.—Close down.

EARLY EVENING SESSION.

- 5.45 p.m.—The Chimes of 2FC.
 6.30 p.m.—The "Hello Man" talks to the children.
 6.50 p.m.—A serial story for the older ones.
 6.59 p.m.—Dinner music. Violin solo and duets by Miss Freda Fish and Miss Nanney McElhenny.
 7 p.m.—"Big Ben." Large sporting news.
 7.10 p.m.—Bulgey's market reports (wool, wheat and stock).
 7.15 p.m.—Fruit and vegetable markets.
 7.20 p.m.—Weather and shipping intelligence.
 Stock Exchange information.
 7.25 p.m.—Late "Evening News" news service.

NIGHT SESSION.

- 7.45 p.m.—Programme announcements.
 8.45 p.m.—Mr. R. C. Mills, D.B., will talk on behalf of the Workers' Educational Association on the "Rights of Homeowners."
 9 p.m.—"Big Ben."
 FROM THE TIVOLI THEATRE CASTLE-BEAGH STREET, SYDNEY.
 Items from the orchestra, conducted by Mr. Will Quinterl.
 9.20 p.m.—FROM THE STUDIO.
 Mr. Harold Tolmachev, baritone.
 9.25 p.m.—The Canterbury District Band (first appearance at the Studio).
 9.30 p.m.—Vocal Gems from "GIPSY LOVE" by members of the Roseville Operatic Society, arranged by Mr. Ernest Rowle.
 (a) Part Female, First Act (lehar).
 (b) Song and Chorus, "Love and Wine."
 9.40 p.m.—The Canterbury Band.
 9.55 p.m.—Mr. Harold Tolmachev, baritone.
 9.55 p.m.—The Canterbury Band.
 9.15 p.m.—Vocal Gems from "GIPSY LOVE" by members of the Roseville Operatic Society:
 (a) Chorus, Act Two, "Tell us, Jostel."
 (b) Chorus and Song, Act Two, "Dance to our labor."
 9.25 p.m.—The Canterbury Band.
 9.45 p.m.—Mr. Harold Tolmachev, baritone.
 9.45 p.m.—Mr. Laale Pearce, violin and solo.

9.50 p.m.—FROM THE STUDIO: Mr. Scott Alexander and his Company will present the second series of the Serial Radio Play, specially written for 2FC by Carington Ball. This rollicking farce of modern Australian life entitled "THE MAN WHO WOULD BE KING" is in four acts. The second act is being taken this evening. Cash prizes are being offered to listeners who successfully guess the solution of the riddles.
 10.25 p.m.—The 2FC Studio Dance Band, conducted by Mr. Eric Paster, assisted by the popular baritone, Mr. Len Maurice.
 10.30 p.m.—Sylphphone solo by Mr. Laale Pearce.
 10.35 p.m.—Celebrity records.
 10.40 p.m.—Announcements.
 10.45 p.m.—"Big Ben" popular items by the 2FC Dance Band until midnight.
 12 midnight.—National Anthem.
 Close down.

- 5.1 p.m.—Weather report.
 5.5 p.m.—Social notes from the "Sun."
 6.10 p.m.—Serial Story, "The Sun."
 6.15 p.m.—Civil Service—Stones Trio, direction, Miss de Courcy Bremer.
 6.20 p.m.—News from the "Sun."
 6.45 p.m.—Musical programme from the Studio.
 6 p.m.—G.P.O. Clock and Chimes.
 6.45 p.m.—Civil Service Stores Trio.
 6.55 p.m.—Serial Story.
 6.50 p.m.—Musical programme from the Studio.
 6.45 p.m.—Producers Distributing Society's Vegetable and Fruit Market report.
 6.40 p.m.—Shipping information when available.
 6.52 p.m.—Day's racing returns on race days.
 6.55 p.m.—News from the "Sun."
 6.58 p.m.—Returns of night's programme.
 6 p.m.—G.P.O. Clock and Chimes; close down.

EARLY EVENING SESSION.

- 6.45 p.m.—G.P.O. Clock and Chimes.
 6.48 p.m.—Uncle George and the kiddies.
 6.40 p.m.—Musical programme from the Studio.

SPECIAL COUNTRY SESSION.

- 7 p.m.—G.P.O. Clock and Chimes.
 Australian Mercantile Land and Finance Co's report.
 Weather report and forecast.
 Block Exchange reports.
 Producers Distributing Society's Fruit and Vegetable Market report.
 Dairy Products report ("Sun").
 Grain and Fodder report ("Sun").
 7.15 p.m.—Country news from the "Sun."
 7.20 p.m.—Talk on "The Motor Car" by Mr. Martin.
 6 p.m.—G.P.O. Clock and Chimes.
 Broadcaster's Tropical Chorus.
 6.3 p.m.—Broadcaster's Miniature Orchestra under the direction of Mr. G. Knight Barnett.
 6.13 p.m.—Mr. Clem Williams (baritone).
 6.20 p.m.—Mr. Stan Cartmel (soprano).
 6.27 p.m.—Miss Gladys Verina (soprano).
 6.47 p.m.—Mr. Henri Penn (bass).
 6.57 p.m.—Resume of following day's programme.
 6 p.m.—G.P.O. Clock and Chimes.
 Weather report and forecast by courtesy of Mr. G. J. Mares, Govt. Meteorologist.
 6.2 p.m.—Broadcaster's Miniature Orchestra.
 6.10 p.m.—Miss Daisy Hooker (contralto).
 6.15 p.m.—Lenore Graham and Syd. Kinley in Harmony and Comedy.
 6.24 p.m.—Mr. Stan Cartmel.
 6.41 p.m.—Mr. Henri Penn.
 6.51 p.m.—Mr. Clem Williams.
 6.58 p.m.—Broadcaster's Miniature Orchestra.
 6.8 p.m.—Miss Daisy Hooker.
 16.15 p.m.—The Ambassadors Dance Band broadcast from the Ball Room of the Ambassadors. During the interval between dances News Reports by courtesy of the "Sun" will be broadcast.
 12 midnight.—G.P.O. Clock and Chimes.
 National Anthem.

2KY, SYDNEY

Tuesday.

LUNCHEON HOUR SESSION.

- 12.35 p.m.—Tune-in to the ticking of the clock.
 12.40 p.m.—Popular Fox-trots. "Orpheus" Gramophone.
 12.25 p.m.—Musical interlude.
 12.45 p.m.—News Items.
 1.0 p.m.—Musical Items.
 1.15 p.m.—Hawaiian Steel Guitar Selections.
 1.25 p.m.—Union news and meetings.
 1.30 p.m.—Lincoln Records.
 1.40 p.m.—Where do you want?
 1.45 p.m.—Closing announcements.

CHILDREN'S HOUR.

- 6.30 p.m.—CHILDREN'S HOUR. The Storyman. Mr. THOMPSON.

2BL, SYDNEY

Tuesday.

EARLY MORNING SESSION.

- 7.15 a.m.—G.P.O. Clock and Chimes.
 7.16 a.m.—Metropolitan Weather forecast.
 7.25 a.m.—Musical programme from the Studio.
 7.25 a.m.—Physical training and health exercises.
 7.30 a.m.—G.P.O. Clock and Chimes.
 7.31 a.m.—Rums on health.
 7.35 a.m.—Personal training and health exercises.
 7.40 a.m.—G.P.O. Clock and Chimes.
 7.46 a.m.—Weather report.
 7.47 a.m.—Broadcaster's special horse service.
 7.48 a.m.—G.P.O. Clock and Chimes; close down.

MORNING SESSION.

- 10 a.m.—G.P.O. Clock and Chimes.
 10.1 a.m.—Weather report.
 10.3 a.m.—Musical programme from the Studio.
 10.20 a.m.—News from the "Daily Telegraph."
 10.30 a.m.—Musical programme from the Studio.
 11 a.m.—G.P.O. Clock and Chimes.
 11.1 a.m.—News from the "Daily Telegraph."
 11.15 a.m.—Rabbit Market report.
 11.17 a.m.—Fish Market report.
 11.19 a.m.—Vegetable Market report.
 11.21 a.m.—Fruit Market report.
 11.25 a.m.—Report from London Dairy Farm, Egg and Poultry Market Report.
 11.30 a.m.—London Metal Quotations.
 11.35 a.m.—Ship's call by wireless.
 11.37 a.m.—Information re Interstate and Overseas mails.
 11.55 a.m.—Shipping information: arrivals and departures.
 11.55 a.m.—WOMEN'S SESSION:
 Social notes by Mrs. Jordan.
 11.40 a.m.—Mrs. Jordan replies to correspondence.
 11.55 a.m.—Fashion Talk by Miss Beattie Dorington.
 12.00 p.m.—Musical programme from the Studio.
 12.30 p.m.—G.P.O. Clock and Chimes.
 12.31 p.m.—Weather report and forecast.
 12.35 p.m.—"Sun" Newspapers news service.
 12.40 p.m.—Hilliers' International Currier, direction, Garry Castling.
 1.30 p.m.—G.P.O. Clock and Chimes.
 1.35 p.m.—Weather report and forecast.
 1.33 p.m.—Sydney Stock Exchange calls.
 1.46 p.m.—News from the "Sun."
 1.45 p.m.—Musical programme from the Studio.
 2 p.m.—G.P.O. Clock and Chimes; close down.

AFTERNOON SESSION.

- Racing information broadcast by courtesy of the "Sun."
 3 p.m.—G.P.O. Clock and Chimes.

Prepare for the Duke!

Let us help you to choose the right Radio goods for your Receiver.
Free advice and genuine information regarding the most satisfactory
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Precise, .00035, 13/0; Twin	27/-
Igranic, .00035, 32/6; .0005	35/-

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Hoosick, engraved knob	3/3
De-jur, engraved knob	3/9
H. and H., engraved dial	5/-
Filcostat	8/6
Bradlystat	15/-

SOCKETS.

U.X. Brown, Bakelite	1/8
Advance, Porcelain	2/6
H. & H., Porcelain	3/6
Benjamin Shock-Absorber	5/-
English sockets, each	9d.

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H. & H., Semi-automatic	2/3
E.Z.E.	2/6
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4in., Bakelite	2/9
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Single circuit	1/9
Double circuit	2/6
Single circuit, Fil. control	3/-
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Jefferson Star, 3-1 and 6-1	16/6
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Emmco, 2-1, 3-1, 5-1	21/-
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AERIAL WIRES.

3/20 Bare Copper, per 100ft.	2/6
7/22 Enamel, per 100ft.	4/6
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1/18 Insulated VIR, per yd.	2d.

FLEXIBLE WIRES.

Twin Lighting Flex, 23/36, per yd.	6d.
Single Flex, 23/30, in red, black, yellow, green, and brown, per yd.	3d.

VALVES.

Mullard, Cossor, Radiotron, Phillips', Geco, at
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Volt Metre, 0-50 volts	3/11
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Bradleyleak, Variable, 4-10 meg.	15/-
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FIXED CONDENSERS.

Dubilier, .00025, .0001	2/3
Dubilier, .00025, with grid leak attach.	2/6
Dubilier, .001 and .002	2/6
Wetless, .0001, .0003, .00025, .001, .002	1/6
Wetless, .00025, with grid leak attach.	1/9
T.C.C., .001, .002, .003, .004, .005, .006	3/9
T.C.C., .25, 5/6; .5	6/6
T.C.C., 1 M.F., 7/3; 2 M.F.	9/9

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Philco, 80 volt	£8/15/-
Exide, 20 volt, units	30/-

B BATTERY ELIMINATORS.

Phillips	£9/15/-
Balkite	£13

BATTERY CHARGERS.

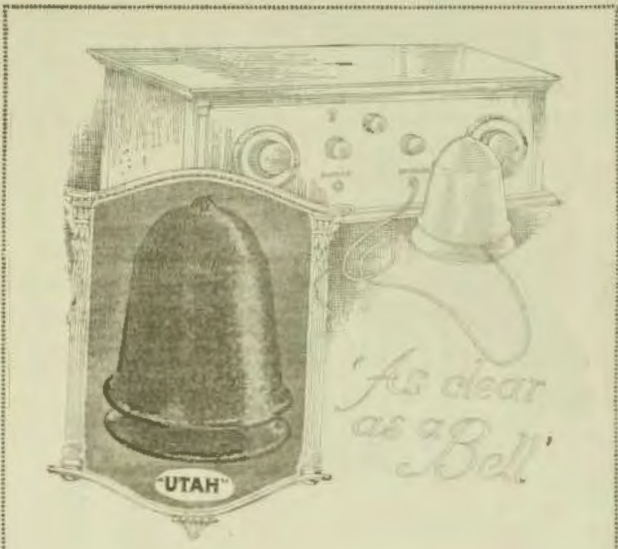
Colmvox "A" Battery Charger	£5/10/-
Colmvox "A" and "B" Battery Charger,	£5/17/6

Colville Moore Wireless Supplies Limited.

10 Rowe Street (Next Hotel Australia) Sydney.

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- 1.45 p.m.—"A DIGGER" will speak on "The Duchess of York and her Scottish Home."
- 5.0 p.m.—STUDIO ORCHESTRA, Selection, "Maxime" (Hombert).
- 5.10 p.m.—MAGGIE FOSTER, Violin. Selections from "Faust" (Gounod). An Old Air.
- 5.17 p.m.—OSBORNE AND PERRYER, Whimsical Wavelets.
- 5.27 p.m.—HAROLD ELVINS, Pianoforte Recital.
(1) "Suite Pour le Piano" (C. Debussy). "Prelude."
"Sarabande."
"Toccata."
(2) "B. Minor Nocturne" (Chopin).
"Study in F Major, Op. 10."
(3) "Caprice on Alesce's Ballet Music" (Chok-si, Zerny).
"Punch and Judy" (Herbert).
- 5.2 p.m.—MR. H. WEBB, Tasmanian Government Tourist Officer.
"True Faim of Tasmania—Port Arthur, and the Penal System."
- 5.11 p.m.—MARGORIE VIERE, Soprano.
"Happy Summer Song" (Kahle).
"Brazil and Chama and Kiam" (Fisher).
- 5.24 p.m.—KEITH DESMOND.
"My Son" (Dryblower).
- 5.30 p.m.—THE VICTORY THEATRE ORCHESTRA, under direction of M. Barrie, transmitted from the Victory Theatre, St. Kilda.
- 5.45 p.m.—"Argus" News Service; British Official Wireless News from Rugby; Meteorological Information, Australasia.
- 11.0 p.m.—OUR GREAT THOUGHT.
"A sound discretion is not so much indicated by never making a mistake as by never repeating it."—Roose.
- 11.1 p.m.—JOE ARONSON AND HIS SYSCO-SYMPHONISTS.
"Baby Face" (Davis).
"Smile a Little Bit" (Schenk).
"At Peace With the World" (Berlin).
"Hi Diddle Diddle" (Coxe).
"Smiling Eyes" (Howards).
"Newspaper Night" (Zanowicki).
"I'd Chink the Highest Mountain" (Hewes).
"Precious" (Whiting).
"Kalinka" (Tobias).
"Fire, Fire, Fire, Turn the Hose on Me" (Gus).
"Any Ice To-day, Lady" (Hillard).
"Gimme a Little Kiss, Will Ye, Huh?" (Lark).
"Tenderly" (Friend).
"Indian Love Call" (Friend).
"Rose Marie" (Friend).
"Then I'll be Happy" (Friend).
"Twilight Waltz" (Hewes).
"No Foolin'" (Owen).
"Blowin' Off Steam" (Davis).
- 11.40 p.m.—GOD SAVE THE KING.



"SUPER-FLEX" LOUD SPEAKER
£2/14/-

The "Super-Flex" Loud Speaker—a new member of the "Utah" family—is exclusive to David Jones'. The improved bell shaped design gives full volume of sound and clear tone. Call in at our Radio Department and hear for yourself.

Get your Loud Speaker in time for the celebrations at Canberra. The "Super-Flex" with the "Utah" reputation and its own record performance, is remarkable value indeed, at 54/-

Ask our Mr. F. Basil Cooke, F.R.A.S., about your Radio problems. He will gladly advise you.

RADIO DEPT., 22 YORK ST.

DAVID JONES'
For Service - - - Sydney

4QG, BRISBANE

Tuesday.

MIDDAY SESSION.

- 1 p.m.—Market reports, Weather information. "The Daily Mail" news, "The Daily Standard" news.
- 1.20 p.m.—From Hotel Carlton.
Lunch music from the Innings, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
- 1.35 p.m.—From the Observatory.
Standard time signal.
- 2 p.m.—Close down.

AFTERNOON SESSION.

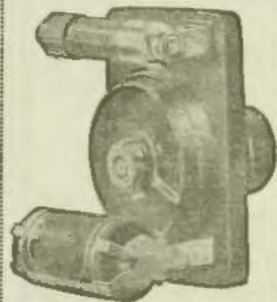
- A Programme of Music from the Studio.
- 2.15 p.m.—Duo Art selection—"Cigarette Mazurka" (Larregie); American Varietal selections—(a) violin and piano "Sonata in A" (Franck); Miss Phyllis Allan, (b) harp—solo, "The Handbell" (Stewart); Mr. Horace Rimmer; Duo Art selection—"The Hussar's Lullaby" (Hilder); Ardian Varietal selections—(a) for trio "L'Amour Waik" (Schafer); Florida Dance Band, (b) soprano

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solo, "The Holy Child" (Martin) Miss Olga Hale; Duo Art selection "Rhapsody" (Brahms); Vocalist selections (a) orchestral "Pace and Pessant" (Suppe) Knight of Columbus Band; (b) bass solo "Someone in Sorrow" (Lew) Mr. Martin McEwen; (Duo Art selections—"Dance of the Harlequins" (Adams) Vocalist selections—(a) vocal "I'm Terribly in Love With You" (Hill) the Revellers; (b) song "Give me a Little Kiss" (York) Mr. Jack Brown; Duo Art selection—"Hearts and Flowers" (Tubani).

4.20 p.m.—"The Telegraph" news.

4.30 p.m.—Close down.

EARLY EVENING SESSION.

6 p.m.—"Daily Standard" news.

Announcements.

6.50 p.m.—Bedtime stories by Ursula Ben and Marie Jim.

7 p.m.—Market reports. Stocks reports. Lectures—"A Talk on Posters"—Mr. P. Humblot (Painter instructor).

7.50 p.m.—Weather news. Announcements.

7.55 p.m.—Standard time signal.

NIGHT SESSION.

8.40 p.m.—Lecture Session—"Phantom Ships"—by Mr. F. W. Stevens.

SANDGATE METHODIST CHOR.

8 p.m.—Chorus—"I Believe in Sandgate" (Maddison); the choir; "and the Land of Hope and Glory" (Eilers); the choir; baritone solo, "The Last Call" (Handberg); Mr. A. H. Evans, part song, "Vesper Song" (King Hall); the choir; chorographic recitation, "March of King Henry's before Harfleur" (Shakespeare); Mr. D. W. Frazer; soprano solo, "All in the Bush of Twilight" (Frederick); Mrs. H. W. Chapman, as hour with the old folk at home—brilliant vocal remarks by Mr. N. Evans; part-songs, "Sweet and Low" (Barry); the choir; male quartet, "Maiden, Liar or True" Murray; Mrs. Evans and Ladies' chorus, "Come Where My Love Lies Drowsing" (Pocster); the choir; recitation, "Bohles" (Anon.); Miss Gwen Williams; hymns (ancient and modern); introduction "Sovereignty" (Newtown); "Gladness" (Hilly); "Jesus' Toner"; "Red Castle" (Gill); "Marston" (Smith); "Cross of Jesus" (Wainier); the choir; anthem, "Thou Will Keep Him in Perfect Peace" (Williams); the choir; soprano solo, "Teach Me to Pray" (Jewett); Mrs. H. Taylor; anthem, "Praise the Lord, O Jerusalem" (Maunder); the choir.

9 p.m.—Meteorological weather forecast.

10 p.m.—"Shut Out" (Anon.); Mr. D. W. Frazer; part-song, "All Among the Barley" (Stirling); the choir; ten-part song, "The Old Brigade" (Thos. Bouchard); choir members' choruses, "Laughing Chorus" (Holt); choir members' part-song, "The Last Chorus" (Sullivan); the choir. Resumption of the Miscellaneous programme. Cantata, "Song of the Vikings" (Elsan Fanning); the choir; bass solo, "Fate" (Egmont); Mr. W. H. Fredale; part-song, "Peter Piper" (E. H. Smith); the choir; humorous duet, "Preserving the Party" (Will Terry); Mr. and Mrs. J. H. Hartshorn; part-song, "The Mill Wheel" (Volstead); choir members' ladies' choruses, "Spring Flowers" (Wholes); the ladies; baritone solo, "Chorus Gentleman" (Lehr); Mr. Byth Evans; male chorus, "Down in the Doochie" (Linders); the gentlemen's vocal duet, "When Song is Sweet" (San Souci); Mr. A. H. Evans; part-song, "The Long Day Close" (Sullivan); the choir; recitation, "Just Her Way" (Sylvester); Miss Gwen Williams; part-song, "Home, Sweet Home" (Bishop); the choir, 10 p.m.—"The Daily Mail" news. Announcements. Weather information. Close down.

5CL, ADELAIDE

Tuesday.

MORNING SESSION.

12 noon—G.P.O. chimes.
12.15 p.m.—Autophone Retriever and New Recording Service recitals.
12.50 p.m.—"Advertiser" news arrival.
12.55 p.m.—Market reports.
1 p.m.—Musical programme continued.
2 p.m.—G.P.O. chimes and close down.

AFTERNOON SESSION.

3 p.m.—G.P.O. chimes.
3.15 p.m.—Relay from the Maple Leaf Cafe—Orchestral numbers.
3.45 p.m.—From the Studio—Autophone Reproducer and Sonora numbers.
4 p.m.—G.P.O. chimes.
4.15 p.m.—Relay from the Arcadia Cafe—Orchestral numbers.
4.55 p.m.—Market reports.
5 p.m.—G.P.O. chimes and close down.

EVENING SESSION.

8 p.m.—G.P.O. chimes.
8.15 p.m.—Dinner music broadcast by Covent Garden Orchestra.
7 p.m.—Bedtime stories.
7.50 p.m.—Market reports.
7.40 p.m.—Home beautiful talk by "Domus".
8 p.m.—G.P.O. chimes.
8.15 p.m.—Entertainment. An entertainment of music, myth and melody. The artists—Soprano, Miss Grace Cannon; Miss Sheila Skelton; and Miss Jessie Levey; contralto, Miss Jean Sinclair and Miss Linda White; tenors, Mr. Fred Williamson and Mr. Howard Macgregor; baritone, Mr. Duff William; basses, Mr. Eric Wickens and Mr. Arthur Borth; ensemble, Mr. Will Hunter; soloists, Miss Blanche Schneider; violin, Miss Linette Fretia; pianist and Miss Helen Magary; piano, Mr. Tom King; cornet, Mr. Vern Rogers; cello, Mr. Ted Williams; flute, Mr. A. N. Nockle; saxophone, Mr. Les Mitchell; clarinet, Mr. A. Wilson.
8 p.m.—G.P.O. chimes.
8.15 p.m.—Weather report.
8.5 p.m.—Dance's week report.
9.30 p.m.—Concert continued.
10 p.m.—"Advertiser" news service.
10.15 p.m.—Concert continued.
11 p.m.—G.P.O. chimes and close down.

6WF, PERTH

Tuesday.

12.30 p.m.—Tune in.
12.35 p.m.—First local news bulletin.
Market reports.
Cables.
1 p.m.—Time signal from Perth Observatory.
1.15 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
1.2 p.m.—STUDIO TRIO.
1.30 p.m.—Close down.
4.50 p.m.—Tune in.
5 p.m.—Musical programme, including pianoforte selections, by Miss T. Willis, A.R.C.M.
4 p.m.—STUDIO TRIO.
4.50 p.m.—Close down.
7 p.m.—Tune in.
7.5 p.m.—Stories for Tiny Tots, by Auntie Kate and Uncle Leslie.
7.55 p.m.—Stock and Share intelligence.
Market report.
Cables. News supplied by courtesy of "The West Australian" Newspaper Co.
8 p.m.—Time signal from Perth Observatory.
8.15 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
8.2 p.m.—CONCERT NIGHT.
Musical programme, including artists.
10 p.m.—Second local news bulletin, supplied by courtesy of "The Daily News" Newspaper Co.
10.55 p.m.—Close down.

Wednes., March 23

2FC, SYDNEY

EARLY MORNING SESSION.

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

MORNING SESSION.

- 8.30 a.m.—Marching music for school children.
- 9 a.m.—Studio music.
- 10 a.m.—"Big Ben" and announcements.
- 10.5 a.m.—Late "Sydney Morning Herald" news service.
- 10.30 a.m.—Studio music.
- 10.45 a.m.—A social story.
- 11 a.m.—"Big Ben." Australian Press Association and Reuters' cable services.
- 11.10 a.m.—Studio music.
- 11.15 a.m.—A talk on Home Cooking by Miss Ruth Furst.
- 11.40 a.m.—Marching music for school children.
- 11.55 a.m.—Close down.

MIDDAY SESSION

- 12 noon—"Big Ben" and announcements.
- 12.1 p.m.—Stock Exchange, first call.
- 12.3 p.m.—Studio music.
- 12.50 p.m.—Bugle wireless news.
- 12.55 p.m.—Miss Hilda Neilson, mezzo soprano: "My Heart's Desire" (Logan).
- 1 p.m.—"Big Ben." Western intelligence.
- 1.3 p.m.—"Evening News" midday news service.
- Producers Distributing Society's report.
- 1.20 p.m.—Studio music.
- 1.25 p.m.—Stock Exchange, second call.
- 1.30 p.m.—Marching music for school children.
- 1.40 p.m.—Miss Hilda Neilson, mezzo soprano: "Thanks be to God" (Dickson).
- 1.45 p.m.—Studio music.
- 2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

- 2.30 p.m.—Programme announcements.
- 2.35 p.m.—Elocutionary Recital by the pupils of Mr. Montgomery Stuart.
- 2.55 p.m.—Miss Yolanda Franceschi, mezzo soprano: "A Brown Bird Singing" (Wood).
- 3 p.m.—"Big Ben." Further items by the Elocutionary pupils of Mr. Montgomery Stuart.
- 3.10 p.m.—A pianoforte solo.
- 3.15 p.m.—Elocutionary items by the pupils of Mr. Montgomery Stuart.
- 3.30 p.m.—Marching music for school children.
- 3.40 p.m.—FROM FARMER'S TEA ROOMS: Miss Muriel Humphries, contralto: "A Little Love Nest" (Lohr).
- 3.45 p.m.—FROM FARMER'S TEA ROOMS: Miss Gladys Aubin, soprano: "Woodland Madrigal" (Batten).
- 4.5 p.m.—Studio music.
- 4.10 p.m.—Miss Yolanda Franceschi, mezzo soprano.
- 4.15 p.m.—A popular record.
- 4.20 p.m.—FROM FARMER'S TEA ROOMS: Miss Muriel Humphries, contralto: "To You" (Speaks).
- 4.25 p.m.—Studio music.
- 4.40 p.m.—FROM FARMER'S TEA ROOMS: Miss Gladys Aubin, soprano: "Be Still Blackbird" (Sanderson).
- 4.45 p.m.—Stock Exchange, third call.
- Close down.

WIRELESS WEEKLY—Aston—11th



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N.S. 22

S-B



Fish Yarns and Wireless.

I HAVE often been puzzled in conversation over certain fishing exploits of my own which had a very slender basis of fact. Are they "hoax" or are they the forgivable exaggerations which cling to us from childhood?

Certainly, I should be hurt if someone placed me in the same category as a certain dealer in real estate named Anaxias who, eventually, had the grace to drop dead. If the comparison were just, the mortality among ladies at the Customs office and motorists on the subject of tyres and miles per gallon, would be colossal!

In the same class, I suppose, we might place the radio enthusiast who hears New York on a crystal set, or gets Rugby on three valves without an aerial.

But, personally, I have an intense dislike for tall stories about the life of cheap dry batteries or learned talks on "static" when the trouble is purely internal resistance. Chiefly, I suppose, because I have so often been stung.

After I had bought every bad, dry battery there was to sell, I eventually came to my senses and an inflexible resolution never to have anything in my set but the best battery possible. I installed an 8BX Rechargeable Philco "B" battery.

One good thing about the Philco is that you need never lie about it! See that all the claims made on its behalf and you will still be ten per cent. to the good. Certainly you will have a substantial credit balance over the money you used to spend on the so-called "cheap" dry kind.

My Philco never lets me down in front of my visitors, never peters out in the middle of a mystery yarn, never drowns the soprano in a rush of crackle and buzz, and never spills acid over everything. In short, it is a paragon of all that a battery should be.

Nowadays, when my friends congratulate me upon the purity and volume of my set, I hand the bouquet to my Philco.

You can buy an 8BX from any high-class dealer or on easy terms direct from New System Telephones Pty. Ltd., 280 Castlereagh Street, Sydney.

EARLY EVENING SESSION

- 8.45 p.m.—The Chimes of St. Pancras.
- 9.00 p.m.—The "Hello Man" talks to the children, assisted by Uncle Ben and Jerry.
- 9.15 p.m.—A story for the silver ones.
- 9.40 p.m.—Dinner music.
- 10 p.m.—"Big Ben" Late sporting news.
- 10.10 p.m.—Daily's market reports closed.
- 10.20 p.m.—From the Studio.
- 10.35 p.m.—Food and vegetable markets.
- 10.50 p.m.—Weather and shipping intelligence.
- Stock Exchange.
- 11.5 p.m.—Late Evening News' news service.

NIGHT SESSION

- 10.50 p.m.—Announcements.
- 11.40 p.m.—Mr. W. F. Jackson, commentator a series of talks "THE FIVE GREAT MODERNS".
- His subject tonight "Ladies".
- 11.50 p.m.—"Big Ben" FROM THE LYRIC WINTER GARDENS THEATRE, GEORGE STREET, SYDNEY. (Songs by Jimmy Elkins' Orchestra with the Grand Organ.)
- 12.00 p.m.—A message of Welcome to the "Big Ben".
- 12.15 p.m.—Miss Ellen Boyd, contralto.
- 12.17 p.m.—Mr. Fred Philpot, vocal solo.
- 12.22 p.m.—Mr. Alec Whitson, baritone.
- Keen on Keeping in' (Goshwin).
- 12.30 p.m.—FROM THE LYRIC WINTER GARDENS THEATRE. Jimmy Elkins' Orchestra, with the Grand Organ. FROM THE STUDIO.
- 12.35 p.m.—Miss Leslie Elliott, comedienne.
- "The smoking for a job" (Laughs).
- 12.40 p.m.—"All Tremaine's Dance Band." "While the years go drifting by" (Burke).
- 12.45 p.m.—Mr. Al Cree, comedian.
- "Loud Noises" (Laughs).
- "Humme Jem" (Rosedale-Scott).
- 12.48 p.m.—Mr. Fred Philpot, vocal solo.
- 12.50 p.m.—"Big Ben" Mr. Ben Garling, in association with Mr. Laurence Halbert, introduces the "Radio Revue" Opening chorus.
- 12.55 p.m.—The "Worms Wizard".
- 1.00 p.m.—Miss Ellen Boyd, contralto.
- 1.05 p.m.—An Electromagnet Interlude.
- 1.10 p.m.—Mr. Alec Whitson, baritone.
- 1.15 p.m.—"All Tremaine's Dance Band."
- 1.20 p.m.—AM Tremaine's Dance Band: (a) "Pompala" (Roue). (b) "By and By" (Peece).
- 1.25 p.m.—Mr. Al Cree and Mr. Ben Garling in song and story.
- 1.30 p.m.—"All Tremaine's Dance Band." (a) "In the town where I was born" (Peece). (b) "I want like you Goodnight" (Tolker).
- 1.35 p.m.—Miss Ellen Boyd, contralto.
- 1.40 p.m.—FROM THE LYRIC WINTER GARDENS THEATRE. Jimmy Elkins' Orchestra with the Grand Organ.
- 1.45 p.m.—"Big Ben" FROM THE STUDIO. Part two of the "Radio Revue".
- 1.50 p.m.—"How to build a 50 watt set" by Ben Garling.
- 1.55 p.m.—"All Tremaine's Dance Band" (a) "Parade of the Builders" (Gosell). (b) "Everybody's got a Girl" (Harris).
- 2.00 p.m.—Miss Leslie Elliott, comedienne. "Suzeret Fair" (Weston and Lee). "The Star Jangle from the Yip" (Dapewell).
- 2.05 p.m.—Mr. Alec Whitson, baritone. "I don't suppose" (Trotter).
- 10.25 p.m.—Finale by Radio Movelers.
- 10.28 p.m.—Tremaine's Dance Band: (a) "Pompala" (Roue). (b) "Overnight" (Hussell).
- 10.40 p.m.—Mr. Alec Whitson, baritone. "The Little Blue Cow" (Gosell).
- 10.52 p.m.—Tremaine's Dance Band: (a) "Moonlight on the Gangway" (Myers). (b) "Why do I love you" (Goshwin).
- 11.00 p.m.—"Big Ben" Late announcements.
- THE WENTWORTH SYMPHONIC DANCE ORCHESTRA will play until midnight. Conductor, Mr. Sydney Simpson.
- 12 midnight.—National Anthem. Close down.

2BL, SYDNEY

Wednesday.

EARLY MORNING SESSION.

- 7.15 a.m.—G.P.O. clock and chimes.
- 7.18 a.m.—Metropolitan weather forecast.
- 7.17 a.m.—Musical programme from the Studio.
- 7.23 a.m.—Physical training and health exercises.
- 7.40 a.m.—G.P.O. clock and chimes.
- 7.51 a.m.—Rise on health.
- 7.50 a.m.—Physical training and health exercises.
- 7.42 a.m.—G.P.O. clock and chimes.
- 7.44 a.m.—Weather report.
- 7.45 a.m.—Broadcasters' special news service.
- 7.50 a.m.—G.P.O. clock and chimes. Close down.

MORNING SESSION.

- 10 a.m.—G.P.O. clock and chimes.
- 10.1 a.m.—Weather report.
- 10.1 p.m.—Musical programme from the studio.
- 10.18 a.m.—Sydney "Daily Telegraph" news service.
- 10.15 a.m.—Fishes market report.
- 10.22 a.m.—Vegetable market report.
- 10.25 a.m.—Fruit market report.
- 10.28 a.m.—London dairy, farm, egg and poultry market report.
- 10.28 a.m.—London metal quotations.
- 10.30 a.m.—Ships in rail by wireless.
- 10.30 a.m.—Information to interstate and overseas mails.
- 10.34 a.m.—Shipping information—arrivals and departures.
- 10.40 a.m.—WOMEN'S SESSION. Talk by Miss Vazley on "Tennis" Broadcasters' women's sports markets.
- 10.45 a.m.—Social notes by Mrs. Jordan.
- 10.55 a.m.—Mrs. Jordan replies to correspondence.
- 11.0 p.m.—Talk on "Whooping Cough" by The Doctor.
- 10.50 p.m.—G.P.O. clock and chimes.
- 10.51 p.m.—Sydney Stock Exchange calls.
- 10.53 p.m.—News from the "Sun".
- 10.55 p.m.—Musical programme from the Studio.
- 1.00 p.m.—G.P.O. clock and chimes.
- 1.1 p.m.—Parade of the Builders recited by Mr. Arnold K. Mele, H.A., broadcast from the Fine Art Gallery, Anthony Hardgrave.
- 1.10 p.m.—News from the "Sun".
- 1.10 p.m.—Sydney Stock Exchange calls.
- 2.00 p.m.—G.P.O. clock and chimes.
- 2.10 p.m.—Weather report and forecast.
- 2.15 p.m.—Social news from the "Sun".
- 2.20 p.m.—Musical programme from the Studio.
- 2.25 p.m.—Fishing resume.
- 2.30 p.m.—G.P.O. clock and chimes.
- 2.35 p.m.—News from the "Sun".
- 2.40 p.m.—Musical programme from the Studio.
- 2.50 p.m.—G.P.O. clock and chimes.
- 3.01 p.m.—Riding resume.
- 3.05 p.m.—News from the "Sun".
- 3.20 p.m.—Musical programme from the Studio.
- 3.45 p.m.—News from the "Sun".
- 3.50 p.m.—G.P.O. clock and chimes.
- 4.0 p.m.—Musical programme from the Studio.
- 4.10 p.m.—Serial story.
- 4.30 p.m.—G.P.O. clock and chimes.
- 4.31 p.m.—Musical programme from the Studio.
- 4.45 p.m.—Producers' Distributing Society's vegetable and fruit market report.
- 4.50 p.m.—Shipping information, when available.
- 4.55 p.m.—Day's racing resume on race days.
- 4.55 p.m.—News from the "Sun".
- 4.58 p.m.—Resume of night's programme.
- 5.00 a.m.—G.P.O. clock and chimes. (Close down.)

EARLY EVENING SESSION.

- 5.45 p.m.—G.P.O. clock and chimes.
 5.50 p.m.—Little Willie and Emily Long
 Long will entertain the kiddies.
 6.10 p.m.—Musical programme from Studio.

SPECIAL COUNTRY SESSION.

- 7 p.m.—G.P.O. clock and chimes.
 Australian Mercantile, Land, and Finance
 Co's report.
 Weather report and forecast, by courtesy of
 Government Meteorologist.
 Producers' Distributing Societies' fruit and
 vegetable market report.
 Stock Exchange reports—grain and fodder
 report ("Sun").
 Dairy produce report ("Sun").
 7.15 p.m.—Country news from the "Sun."
 7.45 p.m.—Overture music from "Sun."
 8 p.m.—G.P.O. clock and chimes.
 Broadways' Topical Chorus.
 8.2 p.m.—The Abad Doo (sings guitar).
 8.10 p.m.—Miss Grace Saville, contralto.
 8.27 p.m.—Mr. Douglas Graham, Scotch
 comedian.
 8.34 p.m.—Madame Phyllis Howe, soprano.
 8.41 p.m.—Mr. Walter Channing, comedian.
 8.48 p.m.—Mr. Roger Jones, baritone.
 8.55 p.m.—Miss Ethel Gilbert, comedienne.
 9.02 p.m.—Mr. R. M. Baxter, tenor.
 9 p.m.—G.P.O. clock and chimes.
 Resumé of following day's programme.
 Weather report and forecast by courtesy of
 Mr. C. J. Macra, Government Meteorologist.
 9.5 p.m.—Mr. Jack Wright, jazz pianist.
 9.10 p.m.—Miss Grace Saville.
 9.25 p.m.—Mr. Douglas Graham.
 9.30 p.m.—Interval.
 9.35 p.m.—The Abad Doo.
 9.42 p.m.—Mr. Roger Jones.
 9.49 p.m.—Gilbert and Channing.
 10.1 p.m.—Madame Phyllis Howe.
 10.2 p.m.—Mr. R. M. Baxter.
 10.15 p.m.—The Ambassadors' Dance Band,
 broadcast from the ballroom of the Am-
 bassadors. During the intervals between
 dances news reports, by courtesy of the
 "Sun," will be broadcast.
 12 midnight.—G.P.O. clock and chimes.
 National Anthem.

2GB, SYDNEY

Wednesday.

MORNING SESSION.

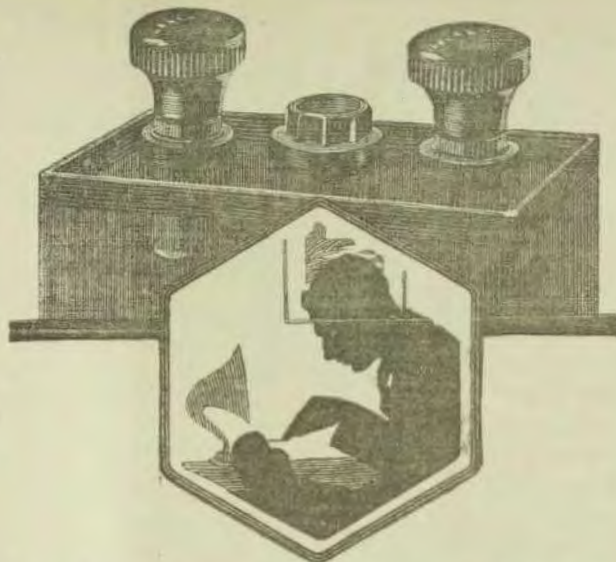
- Chorus Hour, conducted by Mr. J. R. Powell.
 7 a.m.—Music.
 7.5 a.m.—Gladness chat.
 8.12 a.m.—Music.
 9.25 a.m.—Home betterment series.
 9.40 a.m.—Music.
 9.45 a.m.—Five minutes with children at
 home.
 10 a.m.—Announcements.
 10.30 a.m.—

WOMEN'S NEWS SESSION.

- 3.30 p.m.—Music.
 3.40 p.m.—Humanitarian movements in series.
 3.55 p.m.—Music.
 4.5 p.m.—News from everywhere for women.
 4.20 p.m.—Music.

EVENING SESSION.

- 6.30 p.m.—Children's session, conducted by
 Mr. J. K. Powell.
 7.20 p.m.—Address by the Rt. Rev. G. B.
 Arundale. "Do you really want to be
 happy?"
 7.50 p.m.—Popular song number, vocal, piano
 and gramophone.
 7.55 p.m.—Duet for two violins, with piano
 accompaniment. Dan Reilly, Monica Hor-
 der, Ada Brock.



Look at the plates in the Oldham
 —you tell a good Car by its engine
 and a good Accumulator by its plates

OLDHAM Accumulators are fitted with plates made under the Oldham Special Activation Process—an exclusive method of obtaining surprising vitality and long life. The Special Activation Process costs more than the ordinary method of plate manufacture, but therefore it means such a greater increase in efficiency—obviously it is a worth-while investment. Remember the difference in cost between an Oldham and an ordinary Accumulator cannot be more than a shilling or two, yet whereas the latter may last only a twelve-month, the Oldham

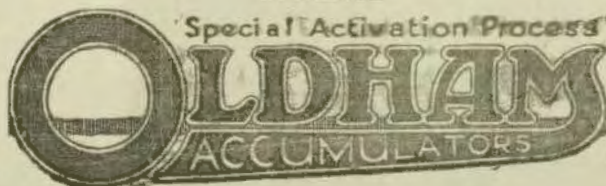
will last two or three-times as long. And whereas the ordinary Accumulator may require to be charged every ten days, the Oldham will probably operate for a fortnight on a charge.

These are the points you should consider when choosing your Accumulator. Get your Dealer to show you an Oldham, compare its stout, well-impregnated plates with those in any other make of Accumulator. Compare them area for area and thickness for thickness. You'll then see why an Oldham lasts longer and gives more hours to a charge.

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 Special Accumulators, 50 Amps Actual,
 22/- per month, 50/- 40 Amps Actual,
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Lead on Wire, 2nd, 3rd,

30% (Smaller Cells, 4/4 each)

Both referred to any circuit.



- 4.5 p.m.—Address by Professor Ernest Wood.
 4.15 p.m.—Songs by Miss Ethel Jones.
 4.30 p.m.—Piano solos, Ada Brook.
 4.33 p.m.—G.D. Vocal Quartette.
 1. "Heart of Oak."
 2. "Blue Hills of Scotland."
 4.35 p.m.—Tutti tutti.
 4.40 p.m.—Violin solos, Monica Herder
 4.42 p.m.—Dance for two violins, with piano accompaniment. Dan Scully, Monica Herder, Ada Brook.
 4.54 p.m.—Announcements.
 4.55 p.m.—Tutti tutti.
 4.57 p.m.—Violin solos, Monica Herder
 4.58 p.m.—Songs to Clement Hosking
 4.59 p.m.—Duet for two violins, with piano accompaniment. Dan Scully, Monica Herder, Ada Brook.
 4.59 p.m.—G.D. Vocal Quartette.
 1. "To all you ladies."
 2. "The Soldier's Farewell."
 3. "The Goodbye."
 Ethel Jones, Sibyl Brown, Thos. Hall, Clement Hosking.
 4.59 p.m.—Over the link.
 5.0 p.m.—Dread Thoughts from Great Meals.

2KY, SYDNEY

Wednesday.

LUNCHEON HOUR SESSION

- 12.15 p.m.—Tune-in to the ticking of the clock.
 12.18 p.m.—Popular Favorites, Organist.
 Gramophone.
 12.22 p.m.—Musical interlude.
 12.30 p.m.—News items.
 1.0 p.m.—Vocal duet.
 1.10 p.m.—Balletic steel guitar selections.
 1.25 p.m.—Union news and meetings.
 1.30 p.m.—Lecture Notes.
 1.40 p.m.—Where to go tonight.
 1.45 p.m.—Closing announcements.

EVENING SESSION.

- 7.15 p.m.—Sporting feature: Turf Imps. Complete review of today's racing, Mr. A. E. POWELL.
 7.30 p.m.—LESTER WHITE, "Hands off China." Lecturer to be announced.
 7.45 p.m.—A talk on first aid to the injured.
 8.0 p.m.—Pianoforte solos, Miss C. McWILLIAM.
 8.10 p.m.—Novelty interlude, The Radio Twins, Messrs. NORMAN A. PULLING and IAL FRENCH.
 8.20 p.m.—Violin solos, MASTER REUBEN (Master Weat at Piano).
 8.30 p.m.—Dance music from the studio.
 8.40 p.m.—Monotone, Mr. I. BROWLOW.
 8.50 p.m.—Hawaiian Steel Guitar Selections.
 9.0 p.m.—Popular numbers, BILLY THOM.
 9.10 p.m.—Soprano solos, Miss TANSLEY.
 9.15 p.m.—Theatre talk.
 9.25 p.m.—Dance music.
 10.0 p.m.—Closing announcements.

3LO, MELBOURNE

Wednesday.

MIDDAY SESSION.

- LENTEN SERVICE FROM ST. PAUL'S CATHEDRAL.
 JOE ARONSON AND HIS SYNCOPHONISTS.
 IAN DEVEREUX, Baritone.
 MARY WADE, Soprano.
 CREEK HAYES, The Talkative Chap.
 Accompanist: Miss AGNES FORTUNE
 Announcer: ALFRED ANDREW
 12 noon.—Time Signal: British Official Wireless News from Rugby (Beater) and the Australian Press Association (Calder), Stock Exchange Information, "Argus" and news services.
 12.25 p.m.—SPECIAL LENTEN MIDDAY SERVICE, transmitted from St. Paul's Cathedral. Speaker, DR. A. E. FLOYD.

- 12.50 p.m.—JOE ARONSON AND HIS SYNCOPHONISTS.
 "On the Rivers" (Rich).
 "That Night in Araba" (Sydney).
 "Some Other Bird Whistled a Tune" (Lynn).
 1.4 p.m.—IAN DEVEREUX, Baritone of the Rose Marie Co., by permission of J. C. Williamson, Ltd.
 "I Love the Moon" (Rubens).
 "Where the Alps Flow"
 "Lovers in Danesburg" (Woodford-Pindell).
 1.11 p.m.—Meteorological Information: Shipping Intelligence: Weather Forecast for Victoria, Tasmania, South Australia, and New South Wales: Ocean Forecast: River Reports.
 1.35 p.m.—JOE ARONSON AND HIS SYNCOPHONISTS.
 "Glad to be Home"
 "While the Years go Drifting By" (Kahn).
 "Smack"
 1.38 p.m.—MARY WADE, Soprano of the Rose Marie Co., by permission of J. C. Williamson, Ltd.
 "Dancing Queen" (Patent).
 "Ave Maria" (Schubert).
 1.39 p.m.—JOE ARONSON AND HIS SYNCOPHONISTS.
 "Glad"
 "Magnetite."
 "How Many Times"
 "St. Louis Blues"
 1.44 p.m.—CREEK HAYES, The Talkative Chap.
 "The Domestic Troubles of Me and My Wife"
 1.45 p.m.—JOE ARONSON AND HIS SYNCOPHONISTS.
 "Glad to be Home"
 "How Comes Charlie"
 "I Want a Fardon for Daddy"
 "Roses"
 2.0 p.m.—Close Down.
 Results of WIRELESS RACES will be given as they come to hand.

AFTERNOON SESSION.

- Speaker: SISTER PECK.
 THE STUDIO ORCHESTRA.
 DEBORAH AND PERRYER, Sketches.
 MAGGIE FOSTER, Violin.
 MARJORIE VERE, Soprano.
 KEITH DESMOND, Elocutionist.
 THELMA READY, Banjo.
 ALICE MADIGAN, Pianoforte.
 Accompanist: Miss AGNES FORTUNE
 Announcer: ALFRED ANDREW
 3.0 p.m.—STUDIO ORCHESTRA.
 "Ballet Excerpt" (Liszt).
 3.10 p.m.—OSBORNE AND PERRYER, Elocution: Komedies.
 3.20 p.m.—MAGGIE FOSTER, Violin.
 Meditation.
 Popular Melodies.
 3.25 p.m.—STUDIO ORCHESTRA.
 "Indian Summer" (Lark).
 3.35 p.m.—ALICE MADIGAN, Pianoforte.
 Recital.
 (1) "Travels in G Minor" (Bachmann).
 (2) "Hark, Hark, the Lark" (Schubert).
 (3) "The Death of Nelson"
 (4) "Concert Study in D Flat" (Liszt).
 3.50 p.m.—MARJORIE VERE, Soprano.
 "The Owl" (Lisa Lehman).
 "The Yellow Hammer" (Lisa Lehman).
 3.55 p.m.—KEITH DESMOND, Elocutionist.
 3rd Act, "The Christian."
 "The Death of Nelson"
 4.7 p.m.—THELMA READY, Banjo.
 Popular Airs.
 4.12 p.m.—MARJORIE VERE, Soprano.
 "The Starling" (Lisa Lehman).
 "The Wood Pigeon" (Lisa Lehman).
 4.19 p.m.—MAGGIE FOSTER, Violin.
 "Cavatina" (Raff).
 "Gavotte Mignon"
 4.38 p.m.—SISTER PECK, Infant Welfare.
 4.58 p.m.—THELMA READY, Banjo.
 Selections.
 4.40 p.m.—"Herald" News Service; Stock Exchange Information. Rare Results.
 5.0 p.m.—Close Down.

EVENING SESSION.

- 8.0 p.m.—CHILDREN'S HOUR. Answers to letters and Birthday Greetings.
 8.55 p.m.—THE STUDIO ORCHESTRA, will play something special for the children.

- 4.2 p.m.—BOBBY BLUEGUM, has a story for the tiny ones.
 4.15 p.m.—OSBORNE AND PERRYER, in funnositia.
 4.30 p.m.—BOBBY BLUEGUM, story for the bigger boys and girls.
 4.35 p.m.—"Argus" and "Herald" News Services; Weather and Aerial Mail Information by the Australian Aerial Services, Ltd.
 4.42 p.m.—Stock Exchange Information; Overseas Shipping.
 4.52 p.m.—Fish Market Reports, by J. R. Borrett, Ltd.
 4.58 p.m.—Market Reports by the Victorian Producers' Co-operative Co., Ltd.; Haymarket Sheep Sales; Poultry; Grain; Hops; Straw; Jute; Chaff; Dairy Produce; Potatoes and Onions; Market Prices of Oranges and Lemons by the Victorian Central Citrus Association; Fruit market reports by the Victorian Wholesale Fruitellers' Association, compiled by the "Fruit World," exclusive to S.L.O.

NIGHT SESSION.

Speakers:

- MR. S. A. COCK, "GARGOYLE," CAPT. PETERS.
 UNIVERSITY SYMPHONY ORCHESTRA.
 ALMA HORLOCK, Soprano.
 MOANA LEO DUO.
 HASTINGS AND ADAIR.
 JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS.

Announcer MAURICE DUDLEY
 Accompanist AGNES FORTUNE

7.15 p.m.—Under the auspices of the Department of Agriculture, MR. S. A. COCK, Circumlocution, "Fanciful Diseases of Citrus."

7.30 p.m.—"GARGOYLE," Your Car in Winter. A short talk about the operation of your car during the winter, and a few simple suggestions of how to avoid trouble.

7.45 p.m.—CAPTAIN PETERS.
 "Books, Wine and Otherwise."

8.0 p.m.—UNIVERSITY CONSERVATORIUM SYMPHONY ORCHESTRA. Conductor, PROFESSOR BERNARD REINZE. Concert transmitted from the Auditorium, Melbourne.

Overture, "Magic Flute" (Mozart).
 "Pathétique Symphony" (Tchaikowsky).
 "Capriccioso Espanol" (Rimsky Korsakoff).

"Symphonic Variations for Piano-forte and Orchestra" (Cesar Franck).
 Pianist, MR. MARSHALL SUM.

10.0 p.m.—FROM THE STUDIO.
 ALMA HORLOCK, Soprano.
 "Se Caran Rose" (Arditi).
 "Sina" (Pergolesi).

10.7 p.m.—MOANA LEO DUO, Hawaiian Instrumentalists.
 "Island Melodie."
 "Lullaby."
 "La Paloma."

10.14 p.m.—British Official Wireless News from Rugby announcement.

10.21 p.m.—HASTINGS AND ADAIR.
 "When Will the Sun Shine."
 "I'm Not all There."
 Comedy Song, "Oh, How She Lied."
 "I Want You to Notice my Leggings."

10.34 p.m.—ALMA HORLOCK, Soprano.
 "Danny Boy."
 "The Little White Horse."

10.41 p.m.—MOANA LEO DUO, Hawaiian Selections.

10.50 p.m.—"Argus" News Service; Weather Forecast.

11.0 p.m.—OUR GREAT THOUGHT.
 The greatest trust between man and man is the trust of giving counsel.—Ben Johnson.

11.0 p.m.—JOE ARONSON AND HIS SYNCOPATING SYMPHONISTS.

"Joak" (Sheridan).
 "There's a Boatman on the Volga."
 "Call Me Early in the Morning."
 "That's Why I Love You."
 "Love Bound."

"Oh, Miss Hannah."
 "Just Around the Corner."
 "Tie Me in Your Apron Strings Again."
 "Barcelona."

"Hohenzberg."
 "Crying for the Moon."
 "Lonesome and Sorry."
 "Dog on the Piano."

11.48 p.m.—GOD SAVE THE KING.

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In two words it describes the kind of faithful, dependable service that Philco renders. Its reputation for reliability is winning new friends every day—and holding old friends year after year.

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4QG, BRISBANE

Wednesday.

EARLY MORNING SESSION.

6.40 a.m.—Physical culture session.
7 a.m.—Close down.

MIDDAY SESSION.

1 p.m.—Market reports, Weather information, "The Daily Mail" news, "The Daily Standard" news.
2.30 p.m.—From the G.P.O.
Lunch hour music played by the Postal Institute Orchestra.
2.58 p.m.—From the Observatory.
Standard time signal.
2 p.m.—Close down.

AFTERNOON SESSION.

From Hotel Carlton.
2.30 p.m.—Afternoon tea music played by Hotel Carlton Symphony Orchestra.
From the Studio.
4.15 p.m.—"The Telegraph" news.
4.50 p.m.—Close down.

EARLY EVENING SESSION.

6.30 p.m.—"Daily Standard" news.
Announcements.
6.50 p.m.—Bedtime stories by "Little Miss Brisbane."
7 p.m.—Market reports, Stock reports, Lectures—"Not Culture"—Mr. J. W. Howe, Horticulturalist, Queensland Agricultural High School and College.
7.40 p.m.—Announcements, Weather news.
7.45 p.m.—Standard time signal.

NIGHT SESSION.

7.45 p.m.—Lecture Session—A talk to motorists by Mr. W. J. Donohue.

STUDIO CONCERT.

8 p.m.—Overture, "The Admiral" (Russell), the Studio Orchestra (conductor, Mr. A. B. Frothingham), soprano solo, "Nightingale in June" (Sanderson), Miss Jill Manners; caprice, "Mamma's Daughter" (Bridg), the Studio Orchestra.

A ONE-ACT PLAY.

"ENTER THE NURSE" (By Irving Gessner).
THE STORY OF AN ACTRESS.

CAPT.—Mrs. Dove (sen. and actress), Miss Nell Douglas Graham; Judith (her companion), Miss Connie Springall; Betty (a young actress), Miss Estelle Dent; Sallie (a chorus girl), Miss Agnes Finney.

SCENE: Mrs. Dove's Sitting Room.
Play produced by Miss Nell Douglas Graham.

Spanish waltz, "Famabella" (Grimm), the Studio Orchestra; tenor solo, "My Prayer" (Bühner), Mr. John Steel; organ solo, selected, Mrs. Hilda Washburn; contralto solo, "Tony's Coronation" (Aylward), Miss Vera Parker.

9 p.m.—Metropolitan weather forecast.
Intermission, "Fascination" (Lorenberg), the Studio Orchestra; soprano solo, "O, Ship of My Belief" (Phillips), Miss Ivy Plaxton; one-step, "Philly Ruffles" (Green), the Studio Orchestra; soprano solo, "Love Will Find a Way" (Simpson), Miss Jill Manners; tenor solo, "Such No More" (Aitken), Mr. John Steel; fox trot, "Zenda" (Breen), the Studio Orchestra; contralto solo, "Kate O'Blance," Miss Vera Parker; melo-ton.

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Genuine Brewsing-Draka Net, imported, balanced to suit Australian broadcasting conditions, radio valve correctly neutralised, with Heath's resistance coupled amplifier in coppered cabinet. £24. Inspection invited.
LEPPIN'S, 225 Lonsborough Street, M1335.

"Nyala" (Zamenick), the Studio Orchestra; soprano solo, "The Pipes of Pan" (Monekin), Miss Ivy Plaxton; march, "Italian Guards" (Stano), the Studio Orchestra; contralto solo—(a) "The Star" (J. H. Rogers), (b) "The Hills of Donegal" (Sanderson), Miss Hilda Peterson; rag, "The Dublin Rag" (Breen), the Studio Orchestra.
10 p.m.—"The Daily Mail" news, Weather Close down.

5CL, ADELAIDE

Wednesday.

MORNING SESSION.

12 noon.—G.P.O. chimes.
12.1 p.m.—Autotone Reproducer and New Broadcasting Sonora recital.
12.30 p.m.—"Advertiser" news service.
12.50 p.m.—Market reports.
1 p.m.—Musical programme continued.
2 p.m.—G.P.O. chimes and close down.

AFTERNOON SESSION.

3 p.m.—G.P.O. chimes.
3.1 p.m.—Relay from the Maple Leaf Cafe—Orchestra numbers.
3.45 p.m.—From the studio—Autotone Reproducer and Sonora recital.
4 p.m.—G.P.O. chimes.
4.1 p.m.—Relay from the Arcadia Cafe—Orchestra numbers.
4.50 p.m.—Market reports.
5 p.m.—G.P.O. chimes and close down.

EVENING SESSION.

8 p.m.—G.P.O. chimes.
8.1 p.m.—Dinner music broadcast by Coronet Garden Orchestra.
7 p.m.—Bedtime stories.
7.30 p.m.—Market reports.
7.35 p.m.—Boy Scout's corner.
7.50 p.m.—Faulding's scientific talk.
8 p.m.—G.P.O. chimes.
8.1 p.m.—Orchestra selections relayed from Hill's Arcade Music House.
8.40 p.m.—Song, Miss E. Washburn.
8.54 p.m.—Recitation (humorous), Mr. Frank Part.
8.60 p.m.—Instrumental item, Mr. J. Ienthall.
8.74 p.m.—Song, Mr. Ken Hughes.
8.85 p.m.—Viola solo, Miss Helen Maggart.
8.98 p.m.—Pianoforte solo, Miss Mary Meehan.
9 p.m.—G.P.O. chimes.
9.1 p.m.—Weather report.
9.2 p.m.—Dalgety's wheat report.
9.5 p.m.—Selection by Hill's Orchestra.
9.51 p.m.—Song, Miss E. Washburn.
9.59 p.m.—Recitation, Mr. Frank Part.
9.64 p.m.—Viola solo, Miss H. Maggart.
9.65 p.m.—Song, Mr. Ken Hughes.
9.65 p.m.—Mandolin-guitar solo, Mr. J. Ienthall.
9.65 p.m.—Song, Miss E. Washburn.
10 p.m.—G.P.O. chimes.
10.1 p.m.—"Advertiser" news service.
10.16 p.m.—Selection by Hill's Orchestra.
10.30 p.m.—Studio concert continued.
11 p.m.—G.P.O. chimes and close down.

Thursday, March 24

2FC, SYDNEY

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.
7.5 a.m.—Studio music.
7.50 a.m.—Official weather forecast, rainfall, temperatures, astronomical observations, shipping intelligence, mail services.
7.55 a.m.—Investment market, mining shares market, metal quotations.

7.35 a.m.—Wool sales, breadstuffs markets, interstate markets, produce markets.
7.45 a.m.—"Sydney Morning Herald" news service.
8 a.m.—"Big Ben." Studio music.
8.15 a.m.—Close down.

MORNING SESSION.

9.30 a.m.—Marching music for school children.
9.40 a.m.—Studio music.
9.45 a.m.—Last minute sporting information by the JFC Racing Commissioner.
10 a.m.—"Big Ben" and announcements.
10.5 a.m.—Late "Sydney Morning Herald" news service.
10.30 a.m.—Studio music.
10.45 a.m.—A serial story; and Dickens' Reading by Mr. A. S. Cochrane.
11 a.m.—"Big Ben." Australian Press Association and Reuter's cable services.
11.15 a.m.—A talk on Home Cooking and Recipes by Miss Ruth Furst.
11.30 a.m.—Marching music for school children.
11.35 a.m.—Close down.

MID-DAY SESSION.

12 noon—"Big Ben" and announcements.
12.5 p.m.—Stock Exchange, first call.
1.5 p.m.—Studio music.
12.50 p.m.—Rugby wireless news.
12.55 p.m.—Miss May Craven, mezzo: "The Spelman" (Pepper).
1 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.
1.25 p.m.—Stock Exchange, second call.
1.30 p.m.—Marching music for school children.
1.40 p.m.—Miss May Craven, mezzo: "Japanese Love Song" (Thomas).
1.45 p.m.—Studio music.
1.55 p.m.—Last minute sporting information by the JFC Racing Commissioner.
2.10 p.m.—Close down.

AFTERNOON SESSION.

2.50 p.m.—Announcements.
2.55 p.m.—Pianoforte reproduction on the "Behning" Player Piano.
3.45 p.m.—Miss Faith Mallaby, mezzo: "April Morn" (Batten).
2.50 p.m.—Some new records.
3 p.m.—"Big Ben." A reading.
3.15 p.m.—Miss Eileen Moreau, soprano.
3.20 p.m.—Studio music.
3.30 p.m.—Marching music for school children.
3.40 p.m.—FROM FARMER'S OAK HALL: Miss Joyce Gillespie, mezzo-soprano: "June's First Rose" (Coates).
3.45 p.m.—Studio music.
3.55 p.m.—Miss Faith Mallaby, mezzo: "Eosina's Song" (Green).
4 p.m.—"Big Ben." FROM FARMER'S TEA ROOMS: Mr. Fred Harman, baritone: "In Town" (Coates).
4.5 p.m.—FROM THE STUDIO: Miss Eileen Moreau, mezzo.
4.10 p.m.—A reading.
4.15 p.m.—Dulcitone solo by Mr. Ewart Chapple.
4.20 p.m.—FROM FARMER'S TEA ROOMS: Miss Joyce Gillespie, mezzo-soprano. "I did not Know" (Trotter).
4.25 p.m.—Studio music.
4.35 p.m.—Dulcitone solo by Mr. Ewart Chapple.
4.40 p.m.—FROM FARMER'S TEA ROOMS: Mr. Fred Harman, baritone: "Retempera" (Sanderson).
4.45 p.m.—Stock Exchange, third call.
4.46 p.m.—Close down.

EARLY EVENING SESSION.

5 p.m.—"Big Ben" and announcements.
6.5 p.m.—FROM THE "HOME FOR INCURABLES." RYDE: The Children's Scatlon, arranged by the "Hello Man" and assisted by "Imito" and Basjo Solo by Mr. W. G. McGrath:
(a) "Selection of Darkie Melodies" (arr. McGrath).
(b) "Hi Ho the Merrie" (Davis).

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6.40 p.m.—Dinner music from the Studio.
7 p.m.—"Big Ben" Late sporting news.
7.10 p.m.—Daley's market reports (wheat, wheat and stock).
7.18 p.m.—Fruit and vegetable markets.
7.30 p.m.—Weather and oblique intelligences.
Stock Exchange.
7.45 p.m.—Late "Evening News" news service.

NIGHT SESSION

7.40 p.m.—Programme announcements.
7.45 p.m.—A talk by the Technical Editor of "Wireless Weekly."
8 p.m.—"Big Ben" FROM THE HOME FOR INVALIDS: RYDE, the 2FC Hospital Concert Party.
Mr. Ernest Archer, tenor.
"Marchin'" (McMurrough).
8.10 p.m.—Mr. W. G. McGrath, banjo solo.
"Baby Face" (Davis).
8.15 p.m.—Corporal Phillips (Hunt) in lured and animal imitations and items on the musical box.
8.25 p.m.—Miss Peggy Dunbar, contralto.
"Wondering Why" (Clarke).
8.35 p.m.—Mr. Wally Byrnes, comedian.
8.45 p.m.—Miss Margaret Grimshaw, mezzo.
8.55 p.m.—Mr. W. G. McGrath, banjo solo.
"Lullabona" (Evans).
9.10 p.m.—Mr. Ernest Archer, tenor.
"Lullabona" (Evans).
9.20 p.m.—Co. Pir, (Dalele Troubadour).
(a) "To-night's my Night" (Huttenlocher).
(b) "Tired of Everything but You" (James).
9.30 p.m.—Miss Peggy Dunbar, contralto.
"Drama of the Desk" (D'Harfield).
"My Prayer" (Gouire).
9.35 p.m.—Mr. Ernest Archer, tenor.
"Sally Lorraine" (Old English).
9.45 p.m.—Mr. Co. Pir, Dalele Troubadour.
(a) "I might have known" (Lucas).
(b) "No Foolin'" (Hanley).
9.55 p.m.—Miss Margaret Grimshaw, mezzo.
9.55 p.m.—PIOM PALING'S CONCERT
HALL: A special programme of Sea Songs by the Sydney Madrigal Society.
9.55 p.m.—FROM THE STUDIO.
Book Reviews by Mr. Gratian Smith.
10 p.m.—"Big Ben." The 2FC Studio Dance Band (introduced by Mr. Eric Pearce, with vocal effects by Mr. Len Murray).
10.15 p.m.—Mr. Laurence Halbert, baritone.
In popular numbers.
10.25 p.m.—Mr. Frank Smythe, banjo solo.
10.30 a.m.—Celebrities records.
10.40 a.m.—Mr. Laurence Halbert, baritone.
10.50 p.m.—The 2FC Studio Dance Band in popular numbers.
10.55 p.m.—Late news and announcements.
11 p.m.—"Big Ben." The 2FC Dance Band will play until midnight, assisted by Mr. Len Murray, the popular baritone.
12 midnight—"Big Ben." National Anthem.
Close down.

2BL, SYDNEY

Thursday.

PAY SESSION

EARLY MORNING SESSION

7.15 a.m.—G.P.O. Clock and Chimes.
7.30 a.m.—Metropolitan Weather Forecast.
7.37 a.m.—Musical Programme from the Studio.
7.53 a.m.—Physical training and health exercises.
7.50 a.m.—G.P.O. Clock and Chimes.
7.51 a.m.—Hints on health.
7.58 a.m.—Physical training and health exercises.
7.45 a.m.—G.P.O. Clock and Chimes.
7.48 a.m.—Weather Report.
7.47 a.m.—Broadcasters special news service.
8.0 a.m.—G.P.O. Clock and Chimes, Close down.

MORNING SESSION

10.0 a.m.—G.P.O. Clock and Chimes.
10.1 a.m.—Weather Report.
10.3 a.m.—Musical Programme from the Studio.

10.30 a.m.—News service from the "Daily Telegraph."
 10.35 a.m.—Musical Programme from the Studio.
 10.50 a.m.—Ten minutes talk supplied by the N.R.M.A.
 11.0 a.m.—G.P.O. Clock and Chimes.
 11.1 a.m.—News from the "Daily Telegraph."
 11.15 a.m.—Rabbit Market Report.
 11.17 a.m.—Fish Market Report.
 11.19 a.m.—Vegetable Market Report.
 11.21 a.m.—Fruit Market Report.
 11.23 a.m.—London Dairy Fairs, Egg and Poultry Market Report.
 11.25 a.m.—London Metal Quotations.
 11.29 a.m.—Ships in call by wireless.
 11.31 a.m.—Information re Interstate and Overseas Mails.
 11.33 a.m.—Shipping Information—arrivals and departures.
 11.35 a.m.—Women's Session—Social Notes by Mrs. Jordan.
 11.45 a.m.—Mrs. Jordan replies to correspondents.
 11.55 a.m.—Talk on "Renovating Furniture," by Mr. Werner.
 12.30 p.m.—Musical Programme from the Studio.
 12.30 p.m.—G.P.O. Clock and Chimes.
 12.31 p.m.—Sydney Stock Exchange Calls.
 12.33 p.m.—"Sun Newspapers" News Service.
 12.43 p.m.—Millers' Instrumental Quartette—direction, Carl Gantling.
 1.30 p.m.—G.P.O. Clock and Chimes.
 1.31 p.m.—Weather Report.
 1.33 p.m.—Sydney Stock Exchange Calls.
 1.34 p.m.—News from the "Sun."
 1.45 p.m.—Musical Programme from the Studio.
 2.0 p.m.—G.P.O. Clock and Chimes. Close down.

AFTERNOON SESSION.

Racing information broadcast by courtesy of the "Sun."
 3.0 p.m.—G.P.O. Clock and Chimes.
 3.1 p.m.—Weather Report and Forecast.
 3.3 p.m.—Social Notes from the "Sun."
 3.16 p.m.—News from the "Sun."
 3.15 p.m.—Musical Programme from the Studio.
 3.30 p.m.—G.P.O. Clock and Chimes.
 3.31 p.m.—Country Women's Session.
 3.45 p.m.—Musical Programme from the Studio.
 4.0 p.m.—G.P.O. Clock and Chimes.
 4.1 p.m.—News from the "Sun."
 4.15 p.m.—Serial Story.
 4.30 p.m.—Musical Programme from the Studio.
 4.45 p.m.—Producers' Distributing Society's Vegetable and Fruit Market Report.
 4.50 p.m.—Shipping information when available.
 4.52 p.m.—Days racing resume on race days.
 4.55 p.m.—News from the "Sun."
 4.58 p.m.—Resume of night's programme.
 5.0 p.m.—G.P.O. Clock and Chimes. Close down.

EARLY EVENING SESSION.

5.45 p.m.—G.P.O. Clock and Chimes.
 5.46 p.m.—Little Willie and Daddy Long Legs will entertain the kiddies.
 5.49 p.m.—Musical programme from the Studio.

SPECIAL COUNTRY SESSION.

7.0 p.m.—G.P.O. Clock and Chimes. Australian Mercantile Land and Finance Co.'s Report: Weather, Hens and Forecasts, by courtesy of Government Meteorologists; Stock Exchange Report; Producers' Distributing Society's Vegetable and Fruit Market Report; Grain and Fodder Report ("Sun"); Dairy Prices Report ("Sun");
 7.15 p.m.—Country News from the "Sun."
 7.40 p.m.—Talk by Mr. Clampton (Australian Astrological Association).
 8.0 p.m.—G.P.O. Clock and Chimes. Broadcasters' Triptal Chorus.
 8.3 p.m.—Broadcasters' Trio.
 8.13 p.m.—Mr. Dick Matthews (Comedian).
 8.20 p.m.—Fashion and Social Notes, by Jessie Torrington; Broadcasters' Fashion Expert Broadcast from the Ambassadors.
 8.25 p.m.—Miss Hilda Walker (soprano).
 8.32 p.m.—Mr. Herbert C. Hinchcliffe, baritone.
 8.39 p.m.—Miss Kitty Poole (soubrette).



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A radio receiving set is as good as the service it gives; good reception, tone, reliability, economy in upkeep, and other essential attributes. A crystal set has tone quality, but is limited in radius; some valve sets are both reliable and economical. Farmer's Standard two-valve receiver is reliable and economical, possessing tone and volume.

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FARMER'S, SYDNEY

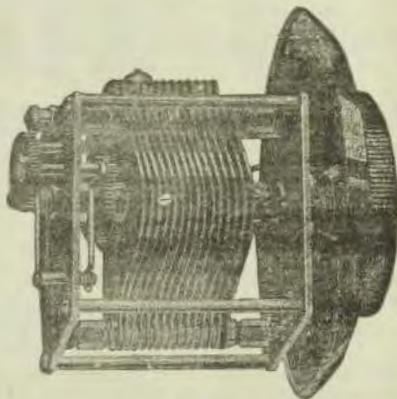
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The EFFICIENCY of S.F.L. tuning
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International Radio Co., Ltd.

200 CASTLEREAGH ST. : SYDNEY

91-93 Courtenay Place, Wellington, N.Z.

8.48 p.m.—Mr. Norman Wright (tenor).
8.53 p.m.—Miss Thelma Houston (soprano).
9 p.m.—G.P.O. Clock and Chimes. Resumé of following day's programme. Weather report and forecast, by courtesy of Mr. C. J. Moran, G.P.O. Meteorologist.
9.3 p.m.—Broadcasters' Trio.
9.15 p.m.—Fashion and Social Notes from the Ambassadors.
9.20 p.m.—Mr. Dick Matthews.
9.27 p.m.—Miss Hilda Waller.
9.34 p.m.—Mr. Herbert Hinchcliffe.
9.41 p.m.—Miss Kitty Poole.
9.48 p.m.—Mr. Norman Wright.
9.55 p.m.—Broadcasters' Trio.
10.5 p.m.—Miss Thelma Houston.
10.12 p.m.—The Ambassadors Dance Band broadcast from the ballroom of the Ambassadors. During the intervals between dances, news reports by courtesy of "The Sun" will be broadcast.
12 midnight.—G.P.O. Clock and Chimes.
National Anthem.

3LO, MELBOURNE Thursday.

MIDDAY SESSION.

THE STUDIO ORCHESTRA.
HAYTINGS AND ADAIR.
CHECK HAYES, The Talkative Chap.
HILTON PORTER, Haritone.
BESSIE GAUNSON, Violin.
Announcer ALFRED ANDREW
Accompanist AGNES FORTUNE.
12 noon.—Time Signal, British Official Wireless News from Rugby; Reuter's and the Australian Press Association Cables; Stock Exchange Information.
12.30 p.m.—STUDIO ORCHESTRA,
"Nautical Scenes" (Piecher).
12.40 p.m.—HAYTINGS AND ADAIR.
Song, "Oh, You Son of a Gun."
Patter.
Cornet Solo, "A Little Love, a Little Kiss."
Parody, "My Home."
12.52 p.m.—STUDIO ORCHESTRA,
"Valse Triste" (Sibelius).
1.6 p.m.—CHECK HAYES, The Talkative Chap. presents a good snappy programme—"At Mulligan's Picture Show."
1.10 p.m.—WEATHER REPORT.
1.15 p.m.—HILTON PORTER, of the Rose Marie Company, by permission of J. C. Williamson, Ltd.
"Far Across the Desert Sands" (Fildien).
"Drake Goes West" (Sanderson).
1.22 p.m.—STUDIO ORCHESTRA,
Selection, "Cavalleria Rusticana" (Mascagni).
1.32 p.m.—BESSIE GAUNSON, Violin.
"Rondino" (Kreisler).
1.40 p.m.—HILTON PORTER, Haritone.
"She is Far From the Land" (Lambert).
"Thou Art Bessie my Beloved" (Col Taylor).
1.47 p.m.—STUDIO ORCHESTRA,
"Solenne" (Sullivan).
2.0 p.m.—Close Down.

AFTERNOON SESSION.

Speaker: MISS FRANCES FRASER.
THE STUDIO ORCHESTRA.
MARJORIE VERR, Soprano.
OSBORNE AND PERRYER.
KEITH DESMOND, Electrician.
CHECK HAYES, The Talkative Chap.
EVENING.
Announcer ALFRED ANDREW
Accompanist AGNES FORTUNE.
3.0 p.m.—STUDIO ORCHESTRA,
"Romance" (Sibelius).
3.10 p.m.—MISS FRANCES FRASER,
"Eighteenth Century Nocturne."
3.25 p.m.—MARJORIE VERR, Soprano,
"The Reason" (Del Riego).
"Fairness" (Kashner Martin).
3.32 p.m.—STUDIO ORCHESTRA,
"Andalusia Suite" (Mitsoumaki).
3.42 p.m.—OSBORNE AND PERRYER,
"Comedy Sketches."
3.52 p.m.—KEITH DESMOND,
"Yokoh Trial."
"Man With a Single Hair."
"Whisper."
4.2 p.m.—MARJORIE VERR, Soprano,
"A Little Pink Pettie" (Reubens).
"My Man" (Sullivan).
4.9 p.m.—STUDIO ORCHESTRA,
"Indian Wedding Festival" (Barnes).

4.19 p.m.—CHECK HAYES, The Talkative Chap, wants you to join him for a few minutes.
 4.30 p.m.—"Herald" News Service; Stock Exchange Information.
 4.45 p.m.—EYENSONG, transmitted from St. Paul's Cathedral.
 5.30 p.m.—Close Down.

EVENING SESSION.

5.40 p.m.—CHILDREN'S HOUR. Answers to letters and birthday greetings.
 5.55 p.m.—HAROLD COLLIER'S CRACKA-JACK MOUTHORGAN BAND.
 Popular Selections.
 6.2 p.m.—"MARY GUMLEAF"—Poems, "Temping the Fairies to Town," "Baby's Picture."
 Story for the Littlest One, "How Little See Minded Baby."
 6.12 p.m.—MARJORIE VERE, has two special songs for you.
 6.19 p.m.—HAROLD COLLIER'S MOUTH-ORGAN BAND, just once more.
 6.24 p.m.—"MARY GUMLEAF," Story for the bigger girls, "Brownies Misfortune."
 Story for the boys, "Carcinus Joe."
 6.35 p.m.—"Argus" and "Herald" News Services; Weather Synopsis; Shipping Movements.
 6.47 p.m.—Stock Exchange Information.
 6.52 p.m.—Fish Market Reports, by J. R. Borrett, Ltd.
 6.53 p.m.—River Reports.
 7.04 p.m.—Market Reports by the Victorian Producers' Co-operative Co., Ltd., Hammarket Sheep Sales; Poultry; Grain; Hay; Straw; Jute; Dairy Produce; Potatoes and Onions.
 7.10 p.m.—Market Reports of Fruit, by the Victorian Fruitlers' Association, compiled by the "Fruit World" exclusive to 3LO; Market prices of Oranges and Lemons by the Victorian Central Citrus Association Pty. Ltd.

NIGHT SESSION.

Speaker: Mr. W. T. McCONNELL.
 MR. E. M. PASCOE.
 FREDERICK BENTLEY.
 JOE ARONSON AND HIS SYM-
 PHONISTS.
 OSBORNE AND PERRYER.
 HASTINGS AND ADAIR.
 MAGGIE FOSTER.
 CHECK HAYES, the Talkative Chap.
 MARJORIE VERE, soprano.
 Announcer MAURIE DUDLEY
 Accompanist AGNES FORTUNE
 7.15 p.m.—Under the auspices of the Railway Department—Mr. W. T. McCONNELL, Chief Train Controller, "Train Control."
 7.20 p.m.—MR. W. M. PASCOE:
 "Howls."
 7.45 p.m.—FREDERICK BENTLEY, now appearing in Rose Marie, will speak to you from his dressing-room, by permission of J. C. Williamson, Ltd.
 8 p.m.—JOE ARONSON AND HIS SYM-
 PHONISTS:
 "Dream of Love and You" (Taylor).
 "Save Your Sorrow" (De Silva).
 "Say It Again!" (Richman).
 8.10 p.m.—OSBORNE & PERRYER:
 Cockney Comedy Opera.
 8.14 p.m.—JOE ARONSON & HIS SYM-
 PHONISTS:
 "Paradise Alley" (Archer).
 "While the Years go Drifting By" (Kahn).
 "Am I Wasting My Time" (Bibo).
 8.24 p.m.—MAGGIE FOSTER, (Solo):
 "To An Evening Star" (Wagner).
 8.28 p.m.—JOE ARONSON & HIS SYM-
 PHONISTS:
 "Rose Colored Glasses" (Beiser).
 "It's a Wonderful World After All" (Davis).
 "Red, Red Robin" (Woods).
 8.36 p.m.—HASTINGS AND ADAIR:
 Song, "Sweet Little You."
 8.42 p.m.—JOE ARONSON & HIS SYM-
 PHONISTS:
 "My Dream of the Big Parade" (Dubin).
 8.55 p.m.—CHECK HAYES, the Talkative Chap:
 "You've Got to Know How."

Results Count!

Would you like to hear 3LO 4QG, 5CL, and 3AR, and many other inter-State stations as well as all local stations on the Loud Speaker? You would if you could afford it, you say!

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Polished Maple or Oak.
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All Models handsome in appearance, and add to the furnishing of the home.

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A Small Deposit permits you to take one home.

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DL 5

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DL3. Dull Emitter, .06
amps. 3v.

DL4. Special RF
Audion 5v. .25 amp.

DL5. Detector and 1st
Audio, 5v. .25 amp.

DL7. Power Audio, 5v.
.25 amp.



DL 7

International Radio Co. Ltd.

200 Castlereagh Street, Sydney.

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

- 7.55 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"How Could Iod Riding Hood" (Rendolph).
"Mr. Pal Jerry" (Rosen).
"My Cate's Due to Two to Two, Today" (Robin).
- 8.0 p.m.—OSBORNE & FERRYER:
Whimsicalities.
- 8.10 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"Fossil" (Crosby).
"Just a College Noddy" (Hansley).
"In a Little Spanish Town" (Young).
- 8.20 p.m.—MAGGIE FOSTER, violin:
"Les Adieux" (Brahms).
- 8.24 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"I Love My Baby" (Warren).
"Piano" (Barry).
"Picador" (Nichols).
- 8.34 p.m.—HASTINGS & ADAIR:
"Daisy Carol" (Crosby).
- 8.38 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"Alabama Stamp" (Crosby).
"Gambler's Lament" (Davis).
"Pearl of Malabar" (Nichols).
- 8.44 p.m.—CHECK HAYES, the Talkative Chap, has a few remarks to make on:
"My Girl's Face."
- 8.52 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"At Home with the World" (Berlin).
"The Annual Fair" (La Forrest).
"Talking to the Moon" (Basketin).
- 10.5 p.m.—"Argo" news service. British official wireless news. Meteorological information. Sporting notes, by "Olympus" Announcements.
- 10.17 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"While We Danced Till Dawn" (Lewis).
"Adorable" (Farr).
"Just a Bird's Eye View" (Kahn).
- 10.27 p.m.—OSBORNE & FERRYER:
Domestic Problems.
- 10.41 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"Give Me Today" (Toscher).
"O'Clumby's Highest Mountain" (Brown).
"She's Everybody's Sweetheart" (Rosen).
- 10.41 p.m.—HASTINGS & ADAIR:
"Best of the Day Year One."
- 10.45 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"Say That You Love Me" (Nichols).
"Schells to Back Again with His Boon, Boon, Boon."
"Blue Bonnet" (Brazin).
- 10.55 p.m.—MARJORIE VEE, soprano:
"My Dream Home" (Crosby).
- 11 p.m.—DUE GREAT THOUGHT:
The happiness or unhappiness of men depends no less upon their dispositions than their fortunes.—La Rochefoucauld.
- 11.1 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"No Foolin'" (Hue).
"Whisper Sh—" (Brazin).
"After 3 Bar 3 in 3" (Donaldson).
- 11.10 p.m.—MARJORIE VEE, soprano:
"The Wood Pigeon" (Lohman).
- 11.14 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"Charlie, I Love You" (Goodman).
"Lonesome and Sorry" (Davis).
"To-night Mr. Night with Baby" (Meyer).
- 11.24 p.m.—MARJORIE VEE, soprano:
"My Moon."
- 11.24 p.m.—JOE ARONSON & HIS SYNCO-SYMPHONISTS:
"Honey Bunch" (Friend).
"Back where the Daffodils Grow" (Donaldson).
"Dreamer Hawaii" (Conley).
"Sing, Kate, but Leave the Piano Alone" (Trench).
"Six Feet of Paper" (Mull).
"Where did You Get Those Eyes" (Donaldson).
- 11.40 p.m.—GOD SAVE THE KING.

4QG, BRISBANE

Thursday.

MIDDAY SESSION.

- 1 p.m.—Market reports. Weather information. "The Daily Mail" news, "The Daily Standard" news.
- 1.30 p.m.—From Hotel Carlton.
Lunch hour music played by Hotel Carlton Symphony Orchestra.
- 1.58 p.m.—From the Observatory.
Standard time signal.
- 2 p.m.—Close down.

AFTERNOON SESSION.

- A Programme of Music from the Studio.
- 2.30 p.m.—Duo Art selection—"Polonaise Militaire" (Chopin); Aeolian Vocalion selections—(a) John Day, "Serenade" (Strauss); Adella Faching and Jelly (Arangi), (b) Karlson solo, "Spanish Gold" (Piaf); Mr. John Thomas; Duo Art selection—"The Fawn" (Schiller); Aeolian Vocalion selections—(a) vocalists, "Mark Antony's Oration" from "Julius Caesar," M. Honey Baynton, (b) fox trot, "Tinsles and Heuler" (Black), Florida Dance Band; Duo Art selection—"Concepts" (Grieg).
- 4 p.m.—Lecture—"Child Welfare No. 1—Food," Nurse Davies.
Aeolian Vocalion selections—(a) quartette, "Plantation Lullaby" (Stevens), Shannon Four, (b) cello solo, "None but the Weary Heart" (Tchaikovsky), Mr. Peter Miesant; Duo Art selection—"The Robin's Return" (Fisher); Aeolian Vocalion selections—(a) band, "The Nightingale and the Frog" (H. M. Welsh Guards); (b) fox trot, "That's Why I Love You" (Donaldson), Don Parlier and His Band; Duo Art selection—"Robin Capricious" (Mandelstam).
- 4.30 p.m.—"The Telegraph" news.
- 4.58 p.m.—Close down.

EARLY EVENING SESSION.

- 6 p.m.—"Daily Standard" news.
Announcements.
- 6.30 p.m.—Bedtime stories by "The Sandman."
- 7 p.m.—Market reports. Stock reports. Lectures—"Dairy Farming in Hawaii"—Mr. Jas. Alder.
- 7.30 p.m.—Weather news. Announcements.
- 7.45 p.m.—Standard time signal.

NIGHT SESSION.

- 7.45 p.m.—Lecture Session—A talk on books by Mr. W. A. Braiden.
- WEST END SALVATION ARMY BAND.
- 8 p.m.—March, "America," the West End Salvation Army Band (conductor, Mr. G. Woodland); soprano solo, "If There Were Dreams to Sell" (Ireland), Miss Beatrice Pugh; vocal quartette, "True Till Death," the W.E.S.A. Band Party; monologue, "Puzzled," Miss Eileen McLennan; solo, selected, Bandman W. Pratt; euphonium solo, selected, Bandman S. Woodland; soprano solo, "Waiting" (Croket), Mrs. Olin Thomas; selection, "The 23rd Psalm," the W.E.S.A. Band; tenor solo, "Good Company" (Adams), Signor Corti; cornet solo, selected, Bandman G. Woodland; soprano solo, "Love Was Once a Little Boy" (Wade), Miss Beatrice Pugh; solo, "The Trumpeter" (Dix), Bandman W. Pratt; selection, "Forward to the Fight," the W.E.S.A. Band; monologue, "The Never Do Well," Miss Eileen McLennan; glee, selected, the W.E.S.A. Band (Glee Party); tenor solo, "Funkull Puncula" (Denza), Signor Corti; march, "Kelphay Chasol," the W.E.S.A. Band.

SWIMMING RACES.

- 9.30 p.m.—A description of the events in connection with the inter-secondary schools swimming carnival will be relayed from the Burwoodham Baths.
- 10 p.m.—From the Studio.
"The Daily Mail" news. Weather news.
Close down.

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84 Volt B Battery
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With any smaller battery (4 volt or small 6 volt) this charger may be used as an intermittent charger of the usual type. Wherever a low-priced charger is wanted it has no superior. When used in connection with the low-capacity batteries offered by leading manufacturers it makes possible a most

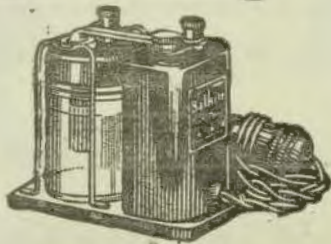
economical installation for sets now using dry cells. With small batteries this charger can also be used as a trickle recharger if a resistance is added to cut down the charging rate to the needs of the set.

When used as a trickle charger, as an added convenience, some owners add a switch, which cuts out the charger during operation. Switches of this type also turn on Balkite "B" when the set is turned on, thus providing an entirely automatic current supply for both circuits.

The Balkite Trickle Charger is 5½ inches long, 2½ inches wide, 5 inches high. It may be put in the usual dry cell compartment. Charging rate, 4 to 5 amperes. Current consumption, 1/10c per hour. Operates from 220-240 AC 50 cycle current.

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5CL, ADELAIDE

Thursday,

MORNING SESSION.

- 12 noon.—G.P.O. chimes.
- 12.1 p.m.—Selections on the Autogenic Reproductor and the New Reproducing Invents.
- 12.30 p.m.—"Advantage" news service.
- 12.50 p.m.—Market reports.
- 1.0 p.m.—Musical programme continued later.
- 1.10 p.m.—Musical programme continued later.
- 2.0 p.m.—G.P.O. chimes and close down.

AFTERNOON SESSION.

- 3.0 p.m.—G.P.O. chimes.
- 3.1 p.m.—Relay from the Maple Leaf Cafe—Orchestral Selections.
- 3.45 p.m.—Selections from the Studio.
- 4.0 p.m.—G.P.O. chimes.
- 4.1 p.m.—Relay from the Arcadia Cafe—Orchestral numbers.
- 5.0 p.m.—Market reports and close down.

EVENING SESSION.

- 8.0 p.m.—G.P.O. chimes.
- 8.1 p.m.—Dinner music broadcast from Convoy Garden Cafe.
- 7.0 p.m.—Belltime stories.
- 7.30 p.m.—Market reports.
- 7.40 p.m.—Poetry talk by Mr. A. M. Whittemore.
- 8.0 p.m.—G.P.O. chimes.
- 8.1 p.m.—Concert arranged by T.B. Soldiers' Aid Society.—Singing artists—Mr. Frank Jobson, Miss K. Warner, Miss Linda Wald, Miss Dorothy Reid, Mr. Frank Roberts, Mr. Dixon Williamson, Mr. Allan Stern. During the evening an appeal will be made.
- 8.0 p.m.—G.P.O. chimes.
- 8.1 p.m.—Weather report.
- 9.2 p.m.—West report.
- 9.3 p.m.—T.B. Soldiers' Aid Concert continued.
- 10.0 p.m.—G.P.O. chimes.
- 10.15 p.m.—T.B. Soldiers' Aid Concert continued.
- 11.0 p.m.—G.P.O. chimes and close down.

6WF, PERTH

- 12.30 p.m.—Time in.
- 12.35 p.m.—First Local News Bulletin. Market reports, Cable.
- 1.0 p.m.—Time signal from Perth Observatory.
- 1.1 p.m.—Weather Notes supplied by the Meteorological Bureau of Western Australia.
- 1.2 p.m.—STUDIO SKIPPETTE.
- 2.0 p.m.—Close down.
- 3.30 p.m.—Time in.
- 3.35 p.m.—Musical programme.
- 4.0 p.m.—STUDIO TRIO.
- 4.30 p.m.—Close down.
- 7.0 p.m.—Time in.
- 7.5 p.m.—A playette for the kiddies by UNCLE DUFFY, with Auntie Kate and Evelyn and Charles Henry, Leslie, Perry and Duffy.
- 7.35 p.m.—Stocks, Markets, News.
- 8.0 p.m.—Time signal from Perth Observatory.
- 8.1 p.m.—Weather Notes.
- VARIETY NIGHT.
- 8.5 p.m.—Musical programme.
- 9.0 p.m.—Talks "Eye Sight in Industrial Efficiency" by MR. T. G. SMITH, of Messrs. Lawson and Park Ltd.
- 10.0 p.m.—Second Local News Bulletin supplied by courtesy of "The Daily News" Newspaper Co.
- 10.30 p.m.—Close down.

Friday, March 25

2FC, SYDNEY

EARLY MORNING SESSION.

- 7 a.m.—"Big Ben" and announcements.
- 7.3 a.m.—Studio music.

7.10 a.m.—Official weather forecast, rainfall, barometric, astronomical, memoranda, shipping intelligence, mail services.
 7.25 a.m.—Investment market mining share market, metal quotations.
 7.45 a.m.—Wool sales, breakfast markets, livestock markets, produce markets.
 7.55 a.m.—"Sydney Morning Herald" news service.
 8 a.m.—"Big Ben." Studio music.
 8.15 a.m.—Close down.

MORNING SESSION

8.30 a.m.—Marching music for school children.
 9.40 a.m.—Studio music.
 10 a.m.—"Big Ben" and announcements.
 10.5 a.m.—Late "Sydney Morning Herald" news service.
 10.30 a.m.—Studio music.
 10.45 a.m.—A serial story.
 11 a.m.—"Big Ben." Australian Press Association and Reuter's cable services.
 11.15 a.m.—A talk on Home Cooking and Recipes by Miss Ruth Furst.
 11.30 a.m.—Marching music for school children.
 11.35 a.m.—Close down.

MIDDAY SESSION.

12 noon—"Big Ben" and announcements.
 12.5 p.m.—Stock Exchange, first call.
 12.8 p.m.—Studio music.
 12.50 p.m.—Rugby wireless news.
 12.55 p.m.—Miss Kathleen Herr, soprano: "Piper June" (Carew).
 1 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.
 1.25 p.m.—Stock Exchange, second call.
 1.30 p.m.—Marching music for school children.
 1.40 p.m.—Miss Kathleen Herr, soprano: "Until" (Sanderson).
 1.45 p.m.—Studio music.
 2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

2.30 p.m.—The Chimes of 2FC.
 2.35 p.m.—A vocal recital by the pupils of Madame Szapofski.
 3 p.m.—"Big Ben." A talk on Scotland Yard by Mr. S. H. Bowden.
 3.15 p.m.—Furth vocal items arranged by Madame Szapofski.
 3.30 p.m.—Marching music for school children.
 3.40 p.m.—FROM FARMER'S TEA ROOMS: Miss Alice Kent, mezzo: "Powder and Patch" (Phillips).
 3.45 p.m.—From the Studio: Mr. Lisle Pearce, xylophone solo.
 3.50 p.m.—Studio music.
 4 p.m.—"Big Ben." FROM FARMER'S TEA ROOMS: Miss Meryl Holiday, contralto: "Meadow Sweet" (Brabe).
 4.5 p.m.—A music talk by Mr. Ewart Chesple.
 4.20 p.m.—FROM FARMER'S TEA ROOMS: Miss Alice Kent, mezzo: "Sing, Sing, Blackbird" (Phillips).
 4.25 p.m.—Mr. Lisle Pearce, xylophone solo.
 4.30 p.m.—Studio music.
 4.40 p.m.—FROM FARMER'S TEA ROOMS: Miss Meryl Holiday, contralto: "Dreams of the Duck" (D'Hardelet).
 4.45 p.m.—Stock Exchange, third call.
 4.46 p.m.—Close down.

EARLY EVENING SESSION.

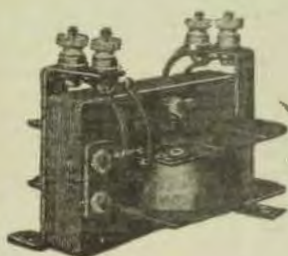
4.45 p.m.—The Chimes of 2FC.
 5.50 p.m.—The "Hello Man" talks to the children.
 6.30 p.m.—A story about the Duke and Duchess of York.
 6.40 p.m.—Dinner music from FARMER'S OAK HALL: Instrumental and vocal items.
 7 p.m.—"Big Ben." Last minute sporting information by the 2FC Racing Commissioner.
 7.10 p.m.—Dalgety's market reports (wheat, wheat and stock).
 7.15 p.m.—Fruit and vegetable markets.
 7.20 p.m.—Weather and shipping intelligence.
 7.25 p.m.—Late "Evening News" news service.
 NIGHT SESSION.

7.40 p.m.—Announcing a programme specially prepared for the approaching entrance into Sydney Heads of the "RENOVA".

7.45 p.m.—The Leichhardt District Band.
 8 p.m.—"Big Ben." Mr. Alfred Cunningham, baritone.
 8.4 p.m.—The Leichhardt District Band.
 8.10 p.m.—Miss Alice Prowse, contralto: "Song of the Little Folk" (Coster).
 8.30 p.m.—Mr. Ellis Price, entertainer.
 8.35 p.m.—The Leichhardt District Band.
 8.40 p.m.—Mr. Charles Lawrence, entertainer: "All about Love" (Grey).
 8.45 p.m.—Miss Gladys Pimister, soprano.
 8.49 p.m.—Mr. Alfred Cunningham, baritone.
 8.52 p.m.—The Leichhardt District Band.
 9 p.m.—"Big Ben." A message of Welcome to our ROYAL VISITORS.
 9.4 p.m.—The Peal of Bells, after which Mr. Alfred Cunningham will sing (with effects) a song of welcome, specially written for the occasion.
 9.18 p.m.—The Leichhardt District Band.
 9.20 p.m.—Miss Alice Prowse, contralto.

9.25 p.m.—Mr. Ellis Price, entertainer.
 9.35 p.m.—Mr. Harrison White, basso solo.
 10.3 p.m.—The Leichhardt District Band.
 10.13 p.m.—Mr. Charles Lawrence, entertainer: (a) "Sant up" (Harris). (b) "That Cat" (Rutherford).
 10.23 p.m.—Mr. Alfred Cunningham, baritone.
 10.25 p.m.—Miss Gladys Pimister, soprano.
 10.30 p.m.—Transmission from the Troad Theatre.
 10.45 p.m.—FROM THE STUDIO: Mr. Harrison White, basso solo.
 10.55 p.m.—Late news and announcements.
 11 p.m.—"Big Ben." THE WENTWORTH SYMPHONIC DANCE ORCHESTRA (conductor, Mr. Sydney Simpson) in popular numbers until midnight.
 12 midnight—"Big Ben." National Anthem.
 Close down.

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Saturday, March 26

2FC, SYDNEY

MORNING SESSION.

8 a.m.—"Big Ben" and announcements.
8.2 a.m.—FROM THE DECK OF THE NEW-CASTLE AND HUNTER RIVER STEAMSHIP COMPANY'S BOAT, s.s. "GWYDIR," proceeding outside the Heads to take up a position in view the arrival of the "RENOVA," the mail "Sydney Morning Herald" news service will be given, interspersed with items by a brass band on board the "Gwydir."
The transmission will be carried out by means of a transmitting set mounted on the steamer and played up on land relayed to the South by aerial line and then sent to Penzance by the "Gwydir."
The s.s. "Gwydir" will follow the "Renown" until anchor is dropped at the place allotted. Descriptions will continue with all the standard atmosphere and news.
10.30 a.m.—Interim.

10.45 a.m.—FROM THE SPECIAL PLATFORM erected for broadcasting purposes adjacent to the landing platform at Fairy Cove, a description of the alighted vessel surrounding the landing, with full details of the Royal Victoria leaving the "Renown" in Neutral Bay and going through the avenue of boats to the landing stage.

The Reception by the Prime Minister will take place at 1.15 on the Esplanade by the State Governor and State Ministers. The usual inspection of the Guard will be made and the procession through the city will commence at approximately 1.30 p.m. Approx.

11.35 a.m.—FROM FARMER'S STRONG POST at the corner of George and Market Streets, Brass Band items with chorus numbers sung by the Sydney Harmonic Society, conducted by Mr. W. Bourne.

The Brass Band of 30 members will give continuous items interspersed with descriptions of the procession by the announcer.

Approx.
12.10 p.m.—Close down.

AFTERNOON SESSION.

1 p.m.—"Big Ben." Announcements. Weather intelligence.
1.30 p.m.—"Evening News" midday news service. Stock Exchange information.

1.25 p.m.—Radio music.
NOTE: During the afternoon the Hoshill Racing Club's meeting will be described direct from the course.

During the intervals of racing events items will be taken from the Westworth Symphonic Brass Orchestra, playing at the Westworth Cafe, and the Whicohelo Instrumental Trio playing at the Studio.
4.30 p.m.—Complete resume of the afternoon's sporting events.

6 p.m.—"Big Ben." Close down.

EARLY EVENING SESSION.

6.45 p.m.—The Changes of 2FC
7.00 p.m.—The "Radio Man" talks to the children.

8.30 p.m.—A story of the Royal Landing this morning.

8.40 p.m.—Diverse music.
7 p.m.—"Big Ben." Late sporting news and complete resume of the day's happenings.

7.55 p.m.—"Evening News" late news service.
7.35 p.m.—Weather intelligence. Radio music.

NIGHT SESSION.

7.40 p.m.—Programme announcements.
7.45 p.m.—More about the Royal Victoria.

8 p.m.—"Big Ben." FROM THE CRYSTAL PALACE THEATRE, GEORGE STREET, SYDNEY: The Orchestra, conducted by Mr. Harry Stone.

8.15 p.m.—Miss Mabel Bateheler, soprano: "Trippel (Toscani)" (Donizetti).

"Tender Ties" (Lubbock).
8.31 p.m.—The 2FC Dance Band, conducted by Mr. Eric Pearce.

8.28 p.m.—Miss Virginia Bassetti, contralto.
8.32 p.m.—Mr. Cliff Arnold, novelty pianist.
8.38 p.m.—THE CRYSTAL PALACE THEATRE ORCHESTRA, conducted by Mr. Harry Stone.

8.45 p.m.—FROM THE STUDIO: Miss Mabel Bateheler, soprano: "Won't you tell me" (Claribel).

8.52 p.m.—Mr. Jack Lumsden, songs at the piano.
9.2 p.m.—Miss Virginia Bassetti, contralto.

9.10 p.m.—The 2FC Studio Dance Band in popular numbers.

9.20 p.m.—Miss Dorothy Dewar, contralto.
9.25 p.m.—Mr. Cliff Arnold, novelty pianist.

9.32 p.m.—Miss Mabel Bateheler, soprano: "There is dew for the flower" (Cowan).

9.40 p.m.—Mr. Jack Lumsden, songs at the piano.
9.40 p.m.—Miss Virginia Bassetti, contralto.

9.52 p.m.—The 2FC Studio Dance Band, with the popular favorite, Mr. Len Matrice.

10.2 p.m.—THE CRYSTAL PALACE THEATRE ORCHESTRA.

10.15 p.m.—Miss Dorothy Dewar, contralto.
10.22 p.m.—Mr. Cliff Arnold, novelty pianist.

10.28 p.m.—Miss Virginia Bassetti, contralto.
10.30 p.m.—The 2FC Studio Dance Band.

10.40 p.m.—Miss Dorothy Dewar, contralto.
10.45 p.m.—Trombone solo by Mr. Harry Randie.

10.55 p.m.—Late news and announcements.
11 p.m.—"Big Ben." The 2FC Studio Dance Band.

NOTE: During the evening opportunity will be taken for transmission and descriptions of incidents in connection with the historic landing, including actual stories told from the streets and in the harbour, and no effort will be spared to convey to listeners a complete outline of what is happening in Sydney.

11.15 p.m.—FROM THE WENTWORTH CAFE: The Westworth Symphonic Dance Orchestra in popular numbers and maintenance, Conductor, Mr. Sydney Simpson.

12 midnight—"Big Ben."
12 National Anthem.
Close down.

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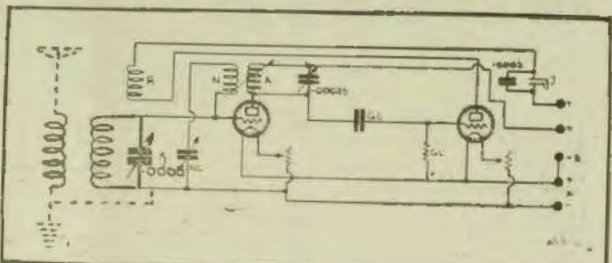
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All Readers' Queries Answered Here

In conjunction with Farmer's Broadcasting Service the Technical Editor of "Wireless Weekly" broadcasts answers to all listeners queries from 2FC each Week. Replies will also appear in these columns.



W.T. (REDFERN)—Q: Would you be kind enough to answer W.S. the following questions—(1) I have a 1-ampere charger (Tranger circuit) could this be suitable for charging Wireless Weekly's A Accumulator? (2) Would it be necessary to reverse polarity with this type? (3) Neutralizing Fleming Drake when adjusting neutralizing condenser should the volume remain the same throughout the whole range of the condenser? Washing your variable plates every session.

A: (1) Yes; a resistance will have to be placed in circuit to reduce the charging rate would be one-fiftieth of an ampere. (2) No; but be sure and test for negative and positive. (3) No; never stop write Warnerford & Son, Box 962, Gt. Sydney, C.P.O.

S.G.M. (MOGIL MOGIL)—Q: Would you kindly let me know at your earliest convenience if it is possible to re-charge two 6-watt A Batteries on a car which employs a 12-volt Battery for lighting and lighting purposes and if so, how would you connect up the two Batteries?

A: Let me know the make of car, also the model, and I'll tell you more. It can be done.

H.L.C. (ISWICH Q)—Q: I intend building a five-valve Neurotome as per instructions in "Radio," and would be pleased of your advice with regard to the most suitable American base valves to use in this circuit. (1) Radio Valves (2) Detector (3) Audio Valves. Would it be advisable, or is it possible to use dull emitters in this receiver? And if so, what values do you suggest, in the same order, 1, 2, and 3? At present I am using dull emitter valves 6CV3 and 6BA5 in a three-valve Newell Roberts. Thanking you for past favors.

A: I can't very well discuss valves in "Wireless Weekly." Read the advertisements and pick your own valves. Write in some of our advertisements, who will advise you.

D.F. (CAMPSIE)—Q: You published some time ago, a year, possibly, a circuit, "A reflex without transformer." I sent you to send me at your earliest convenience a copy of the number it appeared in. If not, the circuit itself. Thanking you in anticipation.

A: Sorry, we have no copies left.

M.M.A. (KURRI KURRI)—Q: Would you please answer me the following question through "Queries Met." I have the "Five Wire Sausage Aerial." I just built it on Wednesday evening, and had it up on Wednesday night, and I am getting excellent results, more volume with clarity and more sharper tuning. I now intend to build the Counter Pole, but I don't understand it too well. Do you use the Counter Pole with the earth, or the Counter Pole only connected to the earth terminals of the receiver.

A: Glad to hear of the improvement. Use the Counter Pole with or without the earth. Try both ways. You will be surprised.

N.L.M.K. (BPPING)—Q: I have constructed the Marvel Reflex set, and about say I am very pleased with it but see I am using a Mullard D.F. One valve that I only use 2.50 for and a Mackintosh Junior Speaker, and it can give 2FC with such volume that it can be heard all over the house, and also 2FC, with very good speaker strength. I want to take this opportunity to congratulate you on giving such a perfect receiving set. I had previously constructed the capacitor-coupled one-valve with a stage of audio and this set gives far greater volume and far sweeter and clearer results. I want you to do me a favor, if you would. I am enclosing a postal note for £5, and which you would forward me two back numbers of "W.W." One gives instructions on the construction of an accumulator B battery, dated, I believe, 1911/26, and also the latest news from the Diamond crystal receiver. I don't know whether this is the exact name from memory, but it is the crystal receiver you have mentioned through 2FC that is solution given to receive all the local stations. I enjoy your chats on Thursday night very much, and although I have only entered the wireless field a few months, they, together with your valuable publications, have given me enough confidence to tackle almost any set that promises good results, but this one will take a lot of looking for simplicity and real musical results, with such small aerial and speaker. Thanking you in anticipation.

A: Thanks very much. It is also to get a few for prices instead of the usual kits. Good luck. The copies required have been mailed to you.

L.N. (GRANVILLE)—Q: In J.C.'s last "Wireless Weekly" published a 2-valve reflex receiver designed by W.W. Rossiter, No. 1, which is built. By the addition of a 90 V. Condenser in parallel with the aerial coil, I can at times receive inter-area stations, but not without some interference from local stations, and since the alteration of Farmer's was finally considerably difficult in tuning. I am using variable air-core coupled coils, the secondary and reaction being tuned with a 9005 V. Condenser respectively. I would be very much obliged if you would supply answers to the following questions—What is the purpose of the 1 MF fixed condensers in the Marvel reflex set? Would the set junction well without them? Would a 5-valve Bennett, or a split secondary set with 3 valves, or other selective 5-valve receiver give similar results as a 2-valve reflex set?

A: The three valve receiver in this issue would be better for you. Read it over carefully. If you favor, lie in the direction of a good 5-valve receiver, do it, and build a Neurotome. See E-310, 571, 573.

A.D.G.—(QUINSDI)—Q: Would you mind answering these questions, as soon as possible, in "the columns of "Wireless Weekly" is

there anything wrong with the enclosed one valve B circuit, if so, where are the faults? Is there any way of putting another coil into this circuit, to make it selective, if so, how is it done? How can I test a fixed condenser? How can I test a grid leak of 3 or 4 meg.?

A: The circuit is certainly very wrong. The best emp-valve for you would be the Extraordinary One-Valve in "W.W." 12/10/26. See the local instructions for testing your test. He may have a Meg. or so.

F.G.S. (ROSELLE)—Q: I am thinking of building "The Marvel Reflex Set," which appears in the current edition this week, but do not much care for the crystal in the circuit. I read somewhere a short time back that a valve could be used as a crystal by simply making one terminal of the Plate and Grid in place of copper strip joining both terminals, and one terminal of the filament. Is this correct, and would this answer in place of the crystal if so, how should I set in the filament leads to light valve without any interference with the circuit? I should also like to know if the above set would be suitable for stations such as 3LO or 4GG, Brisbane? I shall be glad if you will give me this information, on Thursday night, in your talk, or if not, in next week's "Wireless Weekly" which I get every week.

A: Do not under any circumstance alter the circuit of the Marvel Reflex if you want to obtain the maximum results. Inter-area reception results entirely with the construction of the receiver, local conditions, and also the manner in which the operator uses his set.

J.T.G. (BANKSTOWN)—Q: I am building the Vines-Mixer 5-valve receiver, and am dubious which is the 4th valve, Rheostat of the two in the diagram. Also, do you know where 1210 condenser tubes can be obtained to make the Cona Speaker. In your recent issue, I think "All Sydney is exhausted of them," as I have tried everywhere.

A: The Rheostat controlling the first valve is 30 ohms, and the one controlling the two Audio Valves 4 ohms. Our 1210 Rings were obtained from Geo. Phillips, Irish Lane, Brisbane, P.O. 21.

V.N. (PAMULA)—Q: Will you assist me in the following matter in your "Queries" column of "Wireless Weekly"?

I am using a four valve set—stage of radio set, and two stages transformer coupled audio amplification. To this, I have added a further two valves in "push-pull" amplification, which makes the set six valves in all.

I use Radiotron UX260A valves; Jefferson 3 to 1 transformers in the straight out audio stages, and All-American Push-Pull transformers in the power amplifier. The whole set is built in one unit, but I use separate B and C Batteries on the Push-Pull. All components are O.K., and batteries full capacity, with the exception of the batteries on the 2nd valve, which have a trade low, though they run the four valve at excellent volume and tone.

Buy Right and You Must Buy Burgess!

valves are applied to plate when tuned to 2FC, but will sometimes take 60 volts with 2BL. There is also a loud sibilant when receiving 2FC, even on reduced volume, but is completely absent when receiving 2BL.

The components used are as follows:—"Emmo" 5-1 A.F.T., Phillips B405 (4 Columbia dry cells, 30 ohm. Resco. about 1.5 ohm. "Liberator" detector, "Lionelita" speaker attached to "Decca" gramophone, wired as per diagram and checked over by dealer from whom I purchased parts. I may state that the set as detailed above functioned perfectly, at Bellevue Hill, and also at Handwick, about 1½ miles from 2BL.

A.: It appears to me that your A. battery is run down. Unless you feed the filament the valve won't take the plate voltage without distortion. Look also to the crystal detector.

R.A.P. (BATHURST).—I wish to tell you of my success with the "Extraordinary One Valve Set" described in "Wireless Weekly," October 22. When I first purchased the parts I did not have any aerial, so I built it into a screened case, and with an aerial slung between two posts about eight feet high, I got 2FC, 2BL, 31.0, 4GG, 4CL and 5GB faintly (carrier waves only). With my aerial as it is at present, 100 feet long, and height 30 feet one end and 20 feet the other, I could get the aforementioned stations and the carrier waves of several other stations. I then accidentally discovered an improvement, viz., a bottle of water with two wires in it, placed between aerial and aerial terminal. This improvement amplifies the signals considerably, without distorting them. It requires a little more A. battery current, and alters the wavelength slightly. And just a word about the various stations. I think 31.0

gives the best programmes, and in addition, it is very clear, as is 4GG, and also 4CL, 2FC and 2BL are blurred. I think my results are good, and speak well for the design given in your valuable paper, which I receive weekly.

A.: Thanks for the good news. Readers will no doubt try this scheme for themselves. I notice that the wires immersed in the bottle of water don't touch, but are about ¼ of an inch away. Pleasured to hear from you. Thanks for nice remarks.

W.I.D. (YENDA).—I am enclosing a diagram of a 5-valve Neutrodyne Reflex, published about twelve months ago in "Radio," and my suggested modification to suit modern design and practice. Is my modified circuit correct, if not will you, please, correct it? A set built according to the instructions and diagrams given in "Radio" has given every satisfaction in Glad, Sydney—super-sensitiveness, and gets interstate stations and 1YA on the loud speaker. I wish to rebuild the set on modern lines.

A.: The amended diagram, as a circuit, is quite correct, but I am afraid you have altered the characteristics of the receiver in question. Listen! If you know a good thing, stick to it! Build the receiver, which you know works.

J.J.R. (LONGREACH).—Q.: Would you be good enough to supply me with a diagram of the infradyne circuit? I am a subscriber to both "W.W." and "Radio," and if you haven't time to make a sketch, kindly let me know if it has appeared in back numbers, which I have missed during the past couple of months, owing to an over-enthusiastic friend "pinching" my copies, as they arrived during my absence. Both papers are better than ever, and in my articles appearing in the local paper, I'm recommending readers to subscribe to your paper.

A.: So far, I have not dealt with the Infradyne. Write Colville Moore Wireless Supplies, Ltd., Howe Street, Sydney, for the information concerning this circuit. Thanks very much for your congratulatory remarks. Why not make use of your "W.W." by sending 1/- to this office? This entitles you to your paper posted free each week for 12 months.

G.S.J. (WEST RYDE).—Q.: Will you kindly assist me with the following problems, re the "Barkness Reflex" which I am building? (1) I am going to use 3 dry cells in series, i.e., 4½ volts. Will (2) Phillips valves R 405 be O.K.? (3) What would be the respective lives of A dry batteries (continuous hours) with valves using 60 amp. and 1 amp.? (4) Would there be any noticeable difference in volume up speaker with using 60 valves as against 1 valve?

A.: I would rather see you with an accumulator as much better service would result. The dry cells would be quite O.K., but would prove rather expensive in the long run. Valves taking 50 of an amp. against those taking 1 of an amp. would last 2-5th as long. I cannot tell you the ampere hours as so many different dry cells vary in ampere and also shelf life. The difference in signal strength between these two valves would be very remote, especially if an accumulator or carbonized wet used.

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WIRELESS WEEKLY

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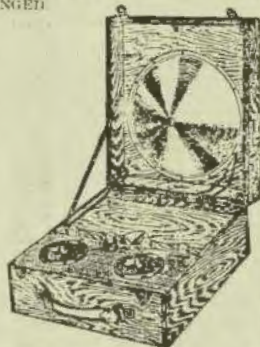
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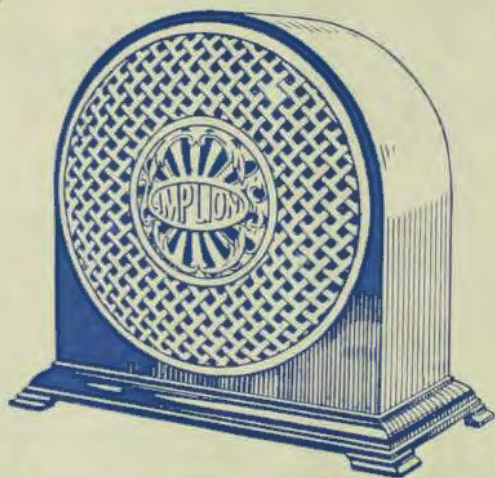
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