

WIRELESS WEEKLY



Broadcast Programmes a Week in advance

VOLUME 9

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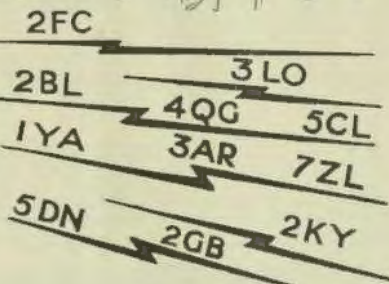
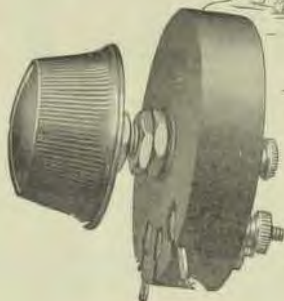
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Friday, January 28, 1927.

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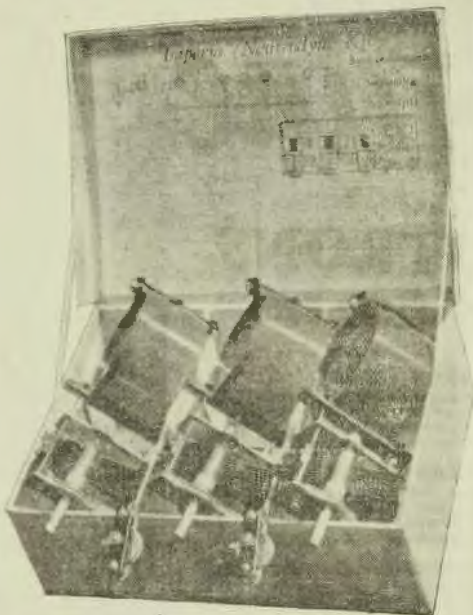
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WIRELESS WEEKLY

VOL. 9, No. 14.

FRIDAY, JAN. 23, 1927.

And Now, We See By Radio!

THIS week John Citizen learned that direct and constant communication by wireless telegraphy between Australia and Great Britain is commercially sound. He received the news with complete indifference, for sound business is nothing new to him, even when dealing with such an ethereal commodity as sound. He merely accepted it as further proof that modern business follows the path pioneered by science, and in this case it was his opinion that business was a little slow, for it is two years since science showed that beam radio is practicable.

After the first announcements those two years of constant newspaper publicity made him tired of the word "beam." Record around-the-world relays by amateur experimenters no longer calls for his wonderment; regular broadcast reception from Japan and America, and nightly reception of news bulletins from England, has dulled the novelty of long-distance radio. But there are two developments, both to follow successful beam communication, which have not received the full glare of the newspaper spotlight, as has the beam, and which, therefore, will probably surprise John Citizen when they are introduced apparently over night.

The first is direct telephone communication with England, the linking up of the London and Australian telephone exchanges so that one may speak to a friend in Newcastle, England, from one's own home in Newcastle, Australia. The beam system

between America and England only preceded telephone conversation between those two countries by a few days. We already have a beam system, and no doubt if there was the same demand for telephone communication between Australia and England we would even now be able to converse with people in England.

The second surprising development scheduled to follow the beam very soon is the transmission of pictures by wireless. Already a group of London newspapers are said to be arranging for the publication of pictures of the Duke of York's arrival in Australia the day after he steps ashore.

The transmission of pictures by radio must not be confused with television, a far more wonderful invention than either of these, but one which writers of scientific fiction have made the average man familiar with in countless stories. Actually, it is only within the last few months that the miracle has become fact, and the commercialization of television will become all the more surprising, because it has been treated as a product of the imagination of fiction writers instead of scientists.

Television is seeing what is happening at a distance in the same instant as it happens, regardless of intervening objects, and the name denotes that this feat is performed by means of a system of electric telegraphy. The history of television dates from 1873 when the light sensitive properties of selenium were discovered.



Between You And Me And The Microphone

Conducted by Jack Plugge



IN A PRIVATE audience granted to him by the Pope, Senatore Marconi was presented with a gold medal in token of his achievements.

IT WAS a red letter day in the history of 2MK, operated by Mookler Bros., Bathurst, when Beryl Mills (Miss Australia, 1926), broadcast from the station last month.

AT 6.45 P.M. (Sydney time), February 1, WEMC, Berrien Springs, Michigan, U.S.A., will carry out a special broadcast with its new 4,000 watt transmitter, which it is hoped will be heard here. The programme will consist of instrumental and vocal music and will be broadcast on a wavelength of 315 metres.

"I TRUST I am not too personal or impertinent," writes a lady radio enthusiast to 2FC, "but does your piano stool need greasing? For some days past I have noticed between items what appears to be a squeaking noise. I have a receiver which transmits sounds fairly faithfully, and I have concluded that something in the studio wants oiling."

THE WRITER was perfectly correct that something needed a little lubrication, but it was not the piano stool. It was the door of the studio, which developed a most pronounced squeak, and which up to the time of receipt of the above letter, had defied all efforts for its eradication. The studio staff did not mind the squeak—in fact, they rather liked it—but when they found it was getting on the nerves of a listener, they took up the problem in real earnest and now it is no more.

INCIDENTALLY, there are many things which radio listeners hear without the broadcasting officials intending them to. A well known "radio uncle" once started the children's session with the remark, "Drat these young rascals, I'm tired of talking to them." The remark was intended as private to a friend, but the microphone had been switched on and hundreds of youngsters heard the words quite plainly.

THE AVERAGE man's life is now divided between worry over two tubes—radio and inner.

A WELL-KNOWN actress recently returned from England, where she has been for several years, said she wanted to sing over the radio badly. She did!

EXCITED VOICE on the phone: "John, come home at once, I've mixed the plugs, the radio is covered with ice and the ice box is singing, 'Red Hot Mama.'"

"THE IDEA that relativity disposes of ether is only true mathematically in the sense that you do not have to talk about it," says Sir Oliver Lodge. "Very well: We won't."

"Aussie Speaking."

Mr. F. G. Kellaway, Managing Director of the Marconi Company, predicts that people in England will shortly be able to converse with people in Sydney and Melbourne.

"Do you still want Leicester Square? Central calling, here's your number!"

"Are you there?"

"Aussie speaking, down from under. Hello, Johnny. Thought I'd give you just a ring. How's the Prince in everything?"

"Oh, I say! A ripping notion! Here we chat across the ocean!"

"Eleven thousand miles or so." . . .

"Most extraordinary thing, you know. A jolly wassie that makes a girl right round the blooming bally earth. I mean to say, eh, what?"

"Yes, some stunt! But, gee, it's hot. How's the weather. I'm going to surf."

"Top—no name! or else it's rain and sodden turf. Can't play golf or any game."

"Sounds bad to me, but, boy, you ought to see, young Charlton and the Jup. They made a race of every lap."

"Perhaps I will, by television."

"Or better still, watch the decision, when record smashes bring back our Ashes."

(Here Big Ben rings.)

"Well, so long, it's time to stop."

"Au revoir, Pip Pip, old top."

—R. E. Corder.

MRS. LOTTA HARRAUFF, well-known in American broadcasting circles, asserts that women constitute 80 per cent. of the U.S. listening public.

ON SEPTEMBER 1 last, Cape Town had 4,000 licensed listeners—the highest figure ever reached. The second birthday of the station was celebrated on September 15. Renewals at the moment are uncertain, and many "pirates" are being prosecuted.

A MEMBER of the "leper colony" on an island near New Bedford, Massachusetts, has been granted an amateur transmitting licence by the U.S. Naval Wireless Department. His name is Archibald Thomas. The radio inspector conducted the necessary examination over the ordinary wire telephone.

"I SEE THAT you make a practice of inquiring for the whereabouts of missing persons," wrote a listener to 2BL this week. "There was a man named . . . to whom I lent £5 last year, and I have never seen or heard of him since. Would you mind announcing from your station that I would like to hear from Mr. . . ." The Managing Director of 2BL read the letter a second time, smiled sadly, shook his head gently, and went on with his job.

THE WINNER of the Perfect Girl competition conducted by 3LO is an envied young person, but judging by some of the correspondence received at the studio office the envying will not be confined to girls alone. One correspondent seriously writes, "As your station appears to be in favor of competitions, I would suggest that you set up a competition for the young men as well as the ladies. You could have them send in photos and give a prize for the most handsome young gent, or something similar. It would arouse some interest for the young fellows. Hoping to see something done for the young gents." There are possibilities in the suggestion, for instance, a competition entitled "April's Most Beautiful Bridegroom!"



A Three-foot Shelf of Radio Books

A selection from the wide assortment of Radio Books designed to quench the listeners' thirst for knowledge. A simple guide to a better understanding of the miracle radio.

NOWHERE in the history of the world is there record of a quest for knowledge so widespread as that of present-day radio enthusiasts. Once gripped by the wireless germ a listener rarely finds satisfying answers to the hundreds of questions which arise in his mind from a brief study of broadcasting. Radio has done more than all the scientific novels and beautifully illustrated encyclopaedias of recent years, to show that science is marvellously interesting and not the dry subject most of us believe. The curiosity of the listener, once aroused, does not stop at circuits. He wants to know the fundamental principles underlying radio and thus is led on to a better understanding of life.

There is a wide assortment of books and publications designed by their authors to quench in part the listeners' thirst for knowledge. With the new "Encyclopaedia Britannica," containing some half dozen articles by radio authorities, including Marconi, making its bow to the public and

serving as a perpetual reminder of a concentrated source of affording a liberal education, it is but natural for a number of radio experimenters and beginners to enquire: "Why not outline a collection of books and publications suitable for a 'three-foot shelf' radio library?"

To select from the large number of radio books a score of those most suitable for the radio experimenter or enthusiast without knowing the stage of advancement of the prospective reader is a difficult task. Rather would I select from my own bookshelf those publications which I have found most useful, and leave the listener to choose for himself.

Intended specially for those devoted to radio as an experimental field and others whose thirst for radio knowledge is deep-seated, is a book entitled "Signals Through Space Without Wires," written by Sir Oliver Lodge, in 1894, selected because of its lucid treatment of the foundations of the subject and tests the early experiments of Heinrich Hertz, who

discovered radio waves.

A book which has stood for many years as a main source of technical radio information is that by Prof. J. A. Fleming now in its fourth edition, entitled, "The Principles of Electric Wave Telegraphy and Telephony." The author is the eminent English physicist and designer of the two electrode valve that bears his name, the Fleming valve. The contents of this book are suggested by the following subtitles: "The Production of High Frequency Currents and Electric Oscillations," "High Frequency Electric Measurements," "Damping and Resonance," "Stationary Electric Waves on Wires," "Electric Radiation," "Detection and Measurements of Electric Waves," "The Apparatus of Radio Telegraphy," "Radio Telegraphic Stations," "Radio Telegraphic Transmission," and "Radio Telephony."

"Electric Waves" is the title of the classical work written by Heinrich Hertz, the discoverer of radio waves, which book was translated into Eng-

lish in 1900 by D. E. Jones. Though it was published in 1900, by dealing in fundamentals it has not been robbed of its value by the intervening years. Among the chapter headings are the following: "On Very Rapid Electric Oscillations," "Upon the Electric Discharge," "Oscillation Upon a Neighboring Circuit," "Finite Velocity of Electromagnetic Actions," "Electromagnetic Waves in Air and Their Reflection," "Propagation of Electric Waves by Wires," and "Mechanical Action of Electric Waves in Wires."

The growing importance of radio as a means of determining direction and position of ships and aircraft gives new emphasis to a book entitled "Direction and Position Finding," written by R. Keen, of Sheffield, England. Citation of some of the chapter headings will suggest the contents of this book: "The Theory of the Wireless Direction Finder," "Position Finding," "Night Effect," "Elimination of Night Effect Errors in Bearings," and "Receiving Apparatus." The author gives practical instructional details of direction finding installations for shore service, as well as for ships and aircraft. He also discusses freak phenomena encountered in direction finding work and indicates how to eliminate faults peculiar to a radio direction finding receiver.

A sort of vest pocket radio encyclopedia was issued in 1924 by the International Correspondence Schools. Its exact title is "I. C. S. Handbook for Radio Operators," and, as this designation implies, it contains a variety of information, including definitions of electrical terms, explanations, both by means of text and diagrams, of electric circuits, oscillating circuits, antenna systems, batteries, generators, motors and miscellaneous radio devices. In addition, within its 500 small pages are to be found useful data on electron tubes, transmitting and receiving stations and tables and data on designing inductance coils, etc. In brief, this handbook is chockful of information of interest to the experimenter.

"Radio Telegraphy for Amateurs" is the title of a book written by Stuart Ballantyne, formerly expert radio aid in the United States Navy. To those engaged in the fascinating experimental field of radio the title is suggestive and an examination of its contents proves that its name is not misleading. For within its pages are to be found photographs and diagrams showing transmitting circuits, antenna systems, schemes of resistance and transformer couplings in receiving apparatus, etc.

The "three foot shelf" of the radio experimenter's library might well re-

serve an inch or two of space for a book of a decidedly popular nature, "Radio for Everybody," written by Austin C. Lescaurou, formerly managing editor of the "Scientific American," qualifies to this description, and at the same time contains helpful suggestions for the embryo amateur—that is, the broadcast listener who is in the transition period from a radio fan to full fledged experimenter. This statement is borne out by some of the chapter headings in "Radio for Everybody": "Operating the Radio Receiving Set and Mastering the Telegraph Code," "Transmitting the Dots and Dashes of the Damped Radio Telegraphy" and the "Gentle Art of Amplifying." This book is written in an interesting style. A book of similar appeal is "Radio for All," produced by Hugo Gernsback, editor of "Radio News."

Going from one extreme to the other and from the new to the old, the experimenter's radio library should include a highly technical and fundamental book entitled "Elements of the Mathematical Theory of Electricity and Magnetism," written by Sir J. J. Thompson, an eminent English physicist, who was then identified with the celebrated Cavendish Laboratory of Cambridge, England. This book rests on a bedrock foundation of fundamentals, as can be noted by some of the chapter headings: "General Principles of Electrostatics," "Lines of Force," "Condensers," "Electrical Images and Inversion," "Magnetism," "Magnetic Inductions," "Magnetic Force Due to Currents," and "Dimensions of Electrical Quantities."

Intended especially for radio telegraph operators navigating on the seven seas, J. C. Hawkehead and H. M. Dowsett are joint authors of a treatise entitled "Handbook of Technical Instruction for Wireless Telegraphists." It is based upon the reasonable presumption that radio operators on ships are in need of special instruction inasmuch as their knowledge of radio should be more comprehensive than land telegraphers. The latter when beset by operating troubles are in ready touch with linemen and engineers, whereas radio operators on ships must do their own "trouble shooting." This handbook, other than containing descriptions of conventional transmitting and receiving equipment, gives constructional details covering the rigging up of emergency radio outfits.

"Wireless Telegraphy and Telephony," by H. M. Dowsett, of London, begins its instruction with the atom, and in order to assist students in understanding atomic processes a provisional model of an atom is de-

scribed. The elements of radio testing are given liberal space in this book, including measurements of audibility, direction finding and signal strength, measurements of dielectric strength, the measurements of frequency and the measurements of resistances and inductances. Moreover, a chapter is devoted to instructions in measuring the direction and distance of transmitting stations and the intensity of received signals.

An exclusive treatment of the modern electron tube is given in the book, "The Thermionic Vacuum Tube and Its Application," by a noted authority, Dr. H. J. Von Der Bijl, former expert of the Western Electric Company. The preliminary chapters deal with the elementary principles of this modern Aladdin lamp, and then, by progressive steps, the author treats of the rectification and amplification properties of the tube, and finally we are told about some of its numerous other applications.

"The Radio Amateur's Handbook," written by F. E. Handy, and published by the American Radio Relay League, has just been announced. Judging from advance notices, it is destined to occupy a conspicuous position on the "three foot shelf" of the radio experimenter's library. It offers a solicitous and guiding hand to the broadcast listener to "come on over" into the field of experimental radio. Once the novice is introduced to the new adventure this handbook tells him how to construct and operate a short wave transmitting and receiving station of modern design.

A valuable reference book on matters of radio interest is the "Year Book of Wireless Telegraphy," published in May of each year by the Wireless Press, Ltd., 12 Henrietta-street, London, England. There is also issued a considerably abbreviated edition of the "Year Book of Wireless Telegraphy," which is intended primarily for experimenters, amateurs and persons interested in broadcast reception. This abbreviated edition contains the same material as the complete year book, except that material primarily of interest to commercial companies has been omitted.

The books mentioned in this article will serve as a nucleus to a useful and instructive three-foot shelf of radio books. Having once mastered the fundamental principles of radio, which he will find therein, the reader may be left to choose for himself the rest of his small library. Unfortunately, not all these books are obtainable first hand in Sydney. For the enthusiast not wishing to go to the trouble of indenting them, we will publish next week a complete list, with prices, of all the radio publications obtainable here.

The Theosophical Broadcasting Station

**A full description of
2GB, the only crystal
controlled broadcasting
station in Australia.**

A NEW announcer has appeared at the Theosophical Broadcasting Station 2GB, Mr. J. K. Powell, who will be remembered by most listeners for his inspiring cheerio talks from 2FC. Mr. Powell is a young Irishman, who came out to Western Australia as a youth 20 years ago, travelled the country in the capacity of a commercial, started "Sparks" fortnightly magazine in West Australia and founded a Sydney version of "Sparks" five years ago.

He is an optimist of the first water and most of his activities at 2GB will be directed in the way of bringing good cheer to the hearts of his listeners. For five minutes each morning, Mr. Powell puts on the air some cheerio talk for the children, and at 9.30 he "cheerio's" women listeners for 15 minutes. From 10 to 10.15 each night (Saturdays and Sundays excepted) he concludes his day's work with 10 minutes cheerio for men. Not an easy thing to do—to talk cheerio stuff three times a day for five days in the week without becoming stilted, but Mr. Powell is one of those rare individuals who seem fairly to exude happiness and insists on being cheerful at all times and in all weathers. 2GB hopes to have many country school children listening in to its gospel of good cheer.

The engagement of Mr. Powell follows a slight reorganisation in the staff of 2GB. It is now four months since the station made its first official transmission and during that time many improvements have been made in the transmission and programmes. The design of the station is unique and in accordance with the latest developments of both receiving and transmitting plant, it differs from other Australian stations in that the wireless and sound currents



The Transmitting Room and Aerial.

are combined, while both are of very small power and the combination is afterwards amplified until the power required is obtained.

The main studio is on the seventh floor of Adyar House, in High Street, Sydney, the Headquarters of the Theosophical Society, Australian Section. Adjoining the studio is a comfortable waiting room and accommodation for the office staff. Adyar Hall itself, which is renowned for its acoustic properties, is used as a studio for band items, etc.

An auxiliary studio is also fitted at the Manor, Mosman, for the convenience of various lecturers and artists who may find it inconvenient to travel to the city studio. Both studios are used during an evening's transmission.

Carbon microphones are at present being used in the studio, similar to

those in use at the other Australian stations, but it is hoped to supplement these by a different type in which all "hiss" will be eliminated. This has been found to be essential for the satisfactory broadcasting of church services, conferences, etc.

The sound currents from the microphone are magnified by a six-valve amplifier before being passed through a telephone line to the actual transmitting station and a receiving set is fitted so that the actual quality of transmission from the station can be controlled from the studio.

Arrangements are also made at the studio for connecting microphones, situated in Adyar Hall, the Liberal Catholic Church, or any other hall in Sydney to the Station. The studio is connected with the actual transmitting station by means of telephone

wires which pass underneath the harbor to Mosman.

The transmitting station is picturesquely situated in the gardens attached to the Manor, the residence of Bishop Leadbeater and Bishop Arundale at Mosman. The transmitting aerials are supported by two wooden masts, one at the front of the Manor being 100 feet high, while the other is at the rear and is about 80 feet above the transmitting plant.

The sound currents from the Studio are fed into a connection board where convenient arrangements are made for supplying the station with sound currents from either the studio in Bligh-street, that in the Manor itself, or from any hall situated in North Sydney. The sound currents from this connection board are first reduced in strength as may be necessary for clear transmission and are then fed through a one stage amplifier to the modulating valves, which have a power of about 10 watts.

A quartz crystal ensures constant wave-length. Small wireless currents are fed through a control valve to a third valve, which, working in conjunction with the modulating valves, combines them with the sound currents to form the actual wireless telephony currents which are necessary to actuate a receiver. At this stage the power of the currents is only about five watts.

These currents are then amplified by three stages before being put into the aerial. The first stage uses a



The 2GB Studio at Adyar Hall.

240 watt valve, the second stage a 480 watt valve and the last stage a large water-cooled valve capable of handling 35,000 watts without being in any way overloaded. All the valves have been supplied by Philips. The water-cooled valve is a most interesting piece of apparatus. It requires 200 gallons of fresh water an hour to keep it cool in addition to powerful air blasts.

The high voltage supply for the small valves is obtained by stepping up the ordinary lighting current of 240 volts to 1,000 volts, which is then converted to direct current at about 450 volts by means of small rectifying valves. That for the large valves is obtained by stepping up the 415 current from the power mains to 25,000 volts and converting this to direct current at about 10,000 volts by means of two water-cooled valves.

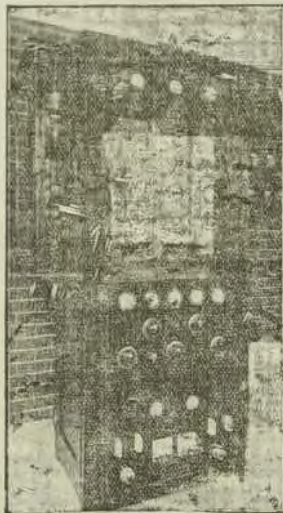
The method of combining the wireless and sound currents is very interesting to a technical person, because no iron-cored chokes are used in the process. It is possible to adopt this improved method because the combination is effected with such very small powers. This method also results in considerable economy, both in capital cost and running expenses. Thus, whereas certain stations have advertised the fact that they require 5,000 watts, this station only requires 19,000 watts for an input of 15,000 watts. It is fascinating to move a

small dial similar to that on a broadcast receiver and watch the power of the station vary from nothing to its maximum.

The design also permits of the inclusion of various devices for the limitation of unwanted sidebands and thus prevent the station from unduly interfering with reception from other stations on nearby wave-lengths. With regard to the installation of the quartz crystal drive to ensure stability of wavelength, a recent international wireless conference recommended the compulsory adoption of this method of wavelength control as being the only way to solve the interference problem.

The wavelength of the station is 316 metres. This can be received on any set, the tuning position being almost exactly midway between 2BL and 2KY. Similar coils to those used for 2BL should be used. The station should be on full power by the middle of September.

The station and studio equipment has been built by the Theosophical Broadcasting Station, Ltd., Mr. E. G. Beard, the designing and constructing engineer, being loaned by United Distributors, Ltd., for the erection of the station. The station was opened eight weeks after actual work was commenced, thus nearly equalling the record for speedy erection established by the same engineer during the construction of 2KY, the latter station taking seven weeks to build.



The Transmitter.

Convict Riot at Parramatta Directed by Loud Speakers

CONVICTS, red-coated soldiers, warders and other relics of chain gang days, wrestled in murderous fury on the banks of the picturesque Parramatta. From all sides of this square mile of hate and revolt came an uncanny voice which controlled every move.

Never was there a more striking contrast!

The grey gaol walls, the iron gates, the escaping convicts, the waiting swamps—were typical of the one bloody chapter in Australia's history. Dominating all and representing the triumph of science in 1927 were the Loud Speakers on the gum trees. These caught up the distant voice and thundered it forth.

Thus was the big riot scene in "The Term of His Natural Life" filmed at Dundas, near Sydney.

This historic film—the greatest ever produced in the Commonwealth—has created controversies, interested Governments, and involved most costly preparations.

Yet without the loud speakers, and the Burgess Batteries, which supplied the electrical energy, the task of filming the riot of 500 convicts over such a large area would have been a hundred times more difficult.

Norman Dawn, the producer, took every human precaution to guard against failure. Microphone, batteries and loud speakers were the best obtainable, and every part of the riot was rehearsed. Four superb cameras were used.

When Australians see the result on the screen shortly, they will realize how grandly modern equipment, aided by Australian skill and genius, can triumph over difficulties.

The photographs reproduced on this page have historic interest. The first shows Mr. Dawn directing the mob scene, with Mr. Len H. Ross at the camera. Every instruction given by the producer was caught up by his Burgess Batteries and sent out from the distant gum trees fringing the immense arena.



Producer Dawn directing each move in the scene through the microphones.

In the second photograph a Red Coat and a convict, with other "supers," are awaiting the summons to join in the riot. In front is the electrical equipment which made everything possible.

HE SHOULD LAUGH.

A WEEK or two ago mention was made of the difficulty broadcasting stations have had in supplying requests for broadcasting the laugh of the Kookaburra. The matter was just recorded casually, but a response has reached 2FC from a resident of Little Elswick Street, Leichhardt. The writer explains that he is the owner of a kookaburra which will laugh "on request," either by day or by night. "I will be pleased to let you use him for a star item by arrangement," says the bird owner. 2FC has made arrangements to give listeners the benefit of some of his laughter.

However, a Jackass in Queensland has the "laugh" over the Southern stations in the matter of being the first of his variety to broadcast. On Sunday afternoon recently he sat on an electric light standard in the Brisbane Botanic Gardens and laughed to his heart's content at the microphone, which was waiting for the band programme. The operator in charge of the amplifier at the Gardens was quick to appreciate the novelty the Jackass was affording listeners, and he accordingly controlled it so satisfactorily that the "laugh" came through just as though the "stunt" had been rehearsed.



Awaiting the summons to join in the riot. Supers in the historic film, "The Term of His Natural Life."

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.



APPRECIATES JAZZ.

Dear Sir,—Just a letter of appreciation of the Jazz Band which was broadcast from the studio last night. The whole of the items were played with perfect rhythm, and the melody could be followed from start to finish, not like most of the Jazz Band broadcast in Sydney, who seem to syncope their music from start to finish, and to the average listener the melody is very hard to follow.

The best item on the programme last night was undoubtedly "Bacelona." The rippling counter melody of this song as played by the band is something worth listening to. Another item that I would like to mention was the excellent singer who sang the chorus of each song. Every word came through as clear as a bell, and I am sure that if this novelty is continued it will be appreciated by the majority of radiolists who do not dance. In fact, the whole performance of the band and singer is far superior to most of the imported jazz records.

Yours, etc.,
G. MASON.

Leichhardt.

[The writer voices the views of a great many 2FC correspondents. An article by Mr. Eric Pearns, conductor of the 2FC Dance Band, will be published in an early issue.]

A MARVELLOUS SET.

Dear Sir,—Since I last wrote you about the failure of your "Extraordinary One Valve Set," described in "Wireless Weekly," October 23, I have located the fault, a burnt out valve, which I was unlucky enough to have obtained, I had not wired up too well, so when I purchased a new valve I reversed the connections. Result, excellent. I get the four Sydney stations just like clockwork every night, and very loudly too. I turn the rheostat about a third of the way round in tuning and then turn it back a bit. That would not be harmful, would it? Thanking you for giving me such a marvellous little set.

Yours, etc.,
J.D.

Newcastle.

[Valc, Tech.—Ed.]

PARDON THE CRITICISM, IQG.

Dear Sir,—A word from a new recruit to wireless. Although static is annoying at this time of the year, I manage to get fairly good results from 9.30 to close down. 3LO is easily the best, although all the others are very good and their programmes afford excellent entertainment, except IQG, who, I hope, will pardon the criticism, but what we want is entertainment—not education.

Personally, as soon as a lecture starts I cut him out and try for 3LO, 2FC or 5CL. I have a library of books and spend at least two hours a day in study, so no one can accuse me of not wanting to improve myself. Further, the studio director dominates the whole programme, until one gets tired of his voice. As we don't bother to listen to him he is wasting our money and an excellent station.

Would it be asking too much to ask the IQG announcer to read over racing results twice, and slowly. We only live for the gee-gees, and the results are read so fast, and so often interrupted by static that nothing less than a dictaphone could catch what is being said, and until we pick the Caulfield and Melbourne Cup double we cannot afford such an outlay.

Yours, etc.,
TINY.

Longreach.

A FEW SUGGESTIONS.

Dear Sir,—I wish to offer a few suggestions for new features for 2FC, in order that they may keep up your reputation of providing for the community a contribution towards that irresistible desire of humanity, "Something new."

First, I would point out that although the orchestral music from cinema theatres is very acceptable, there is a feeling that something is missing, especially when the laughter or applause of the audience is heard. I suggest that arrangements be made to broadcast a description of either the story or the programme with respect to the cinema, or the acts as the case may be, with the orchestra as a background.

Another feature which I think would be appreciated is a serial story with exciting moments; one that would encourage listeners-in to be anxious to know just what the next night's transmission would reveal. The broadcasting of the University Memorial Carillon should also be carried out by 2FC; why not endeavor to obtain first place?

Trusting that these few suggestions will help in compiling the programmes.

Yours, etc.,
H. SWITZER.

Hurstville.

[The broadcasting of University Memorial has already been arranged for by 2FC.]

IN DEFENCE OF THE FARMER.

Dear Sir,—There is another aspect of the Farmer and radio situation I would like to draw attention to. It would be pretty safe to say that 50 per cent. of the city licenses are held by crystal users, which goes near to equalizing the percentage of valve users in the crystal and valve zones. Many of those in the valve zones are unable to use accumulators, therefore are tied to the unsatisfactory and expensive dry batteries. That residents of distant or valve zone-cities use sets only goes to show that other permutations open to them are not serious competitors, and leaves the conclusion that a very large body of country residents incurs the disproportionate cost of the necessary sets in order to enjoy the benefits which like most good things—are served at minimum cost to city dwellers. Decentralisation is the remedy for the dearth of radio receivers in the country. Scatter the broadcast stations; or perhaps it would be more practicable to establish relay stations, until at most a three valvor would give enjoyable speaker results in everyone in the State. Then you would get the answer to your query, "Does the Farmer Want Radio?" He surely does, as much as he wants Parliamentary representation on the basis of acreage and not population.

Yours, etc.,
JAY COBB.

Bombush.

3 LO modestly disclaimed attempting to discover the Perfect Girl when it began its recent Competition. It was looking for an all-rounder, a sort of feminine Rhodes Scholar, who would combine skill in sport, social service records, exquisite deportment and a pretty face.

Well, it has found her, and I have just left her. Her name is Eileen Elsa Harper and she hails from the mountains near Melbourne, a little town called Belgrave.

She is of the class that gentlemen prefer, her fair hair framing a face that is piquant and full of fun. She likes a joke, as long as it is not at her expense. This joke is on 3LO, and will cost them a trip through New Zealand, beginning at Milford Sound in the South Island and working up through both islands by medium of motors, trains and boats, all de luxe, and in charge of Government tourist officers.

To go back to Miss Harper, she was cooking at home, for her first and greatest virtue is that she is a good cook, when Mrs. McDowell, a neighbor, came in full of the idea that Eileen should enter for the 3LO Competition. You know how these things start. They all laughed and Eileen went on with her basting or kneading, or whatever it is they do with scones. When they stopped laughing, Eileen was persuaded to "have a shot" at it.

She was certainly well equipped for it. Her social service included a commission in the Girl Guides, and her face is so lovely that even the stark uniform of that holy army of martyrs did not unduly distress her. Then she was a great hand at organising the outrages known as Queen Carnivals, for wheeling money out of shy citizens. She won the long-distance championship for this, having persuaded a Scotchman 20 miles away to contribute a sovereign to her fund.

Coming to her other accomplishments, the thing she seems to be proudest of is having been born in West Australia, the State that provided Miss Australia. She was born at Kirrup, and explained to me that "up" in aboriginal means a drink. I explained that in our State it is "down." These funny local customs!

She is a tennis-player, wields a mean mallet at croquet, and—a surprise this—plays baseball like an American. Her indoor work is good. She has taken courses in Domestic Science, though she is far too pretty



The Perfect Girl

Miss Eileen Harper wins 3LO Competition—See also cover picture.

or to have to bother. She sings; she plays, she dances, not as you or I do, hoping that our fox-trot will not be mistaken for the Black Shuffle, but as an exhibitioner. Her dancing partner was Tommy Assender, the winner of the Victorian Championship, and runner-up in New South Wales. It will be admitted that she is what is known as "some" dancer.

Educated at one of the crick Melbourne colleges, the Methodist Ladies' College, where the well-known Dr. Fitchett is the Principal, her mental attainments are many. It will be seen, then, that with a face as lovely as hers, with a record of social service, outdoor sport, kitchen and domestic accomplishments, and parlor tricks, Miss Harper has every right to be called a Perfect Girl.

And she will reap the reward of perfection. It is calculated that the full value of the presents to be heaped on her will amount to £1000. She is only 20 years old, so this is a nice little sum to be available at her launching ceremony. She will be feted everywhere she goes in New Zealand, and will be lucky if she is allowed to leave the Dominion alone.

It is an interesting experiment of 3LO to broadcast a five minute speech by one of the Japanese swimmers in his own tongue.

One of the two amphibians from Nippon will talk from the 3LO studio in English, but the other one, having none, will address the world in Japanese. I believe that a big effort will be made by the Japanese station JOAK to "get" Melbourne that night, so as to give Japan the thrill of listening to one of its nationals in far-off Australia. This takes place on January 18, the day before the swimming matches, which are to be described and broadcast by Norman McCance. I think this is a mistake. The Japanese speech should be made on the 20th so as to give his countrymen listening in the first news of their victory or defeat.

At all events, it will be a piquant thing to listen to a speech in Japanese. Quite possibly, if the Japs have any sense of humor, that speech might be absolutely paralysing to Australian ears. The old adage that listeners never hear any good of themselves might have a surprising confirmation.

HELLO, NEW YORK!

I was interested in the first chirpings of greetings over the air between London and New York, and felt that both parties might have done better than the feeble twitterings they achieved. After all, it was a great occasion, and some little formality might have been observed. It is to be hoped that when £15 for a few minutes is demanded from the It is to be hoped that when £15 for a few minutes is demanded from the commercial world, they will manage to pack more significance than the burblings about one innovation being a "milestone."

One effect it has had on my mind, and that is to give me a glimmering that spiritualistic utterances may be something more than fake, after all. My chief argument against them hitherto has been, not the inherent impossibility of survival—my mother-in-law is superior to death, I'm sure—but the senseless cackle of returning spirits, I felt, could not by any chance be other than childish invention of the medium. "I am very happy" seems to be the nearest even Shakespeare and Dante can get to bright chatter. It may be, however, that, like these wireless dialogues, the

(Continued overleaf.)

newness of the experience has sapped their intelligence, and all they can be possibly looked to produce is the sort of talk one would expect between two flappers on a telephone.

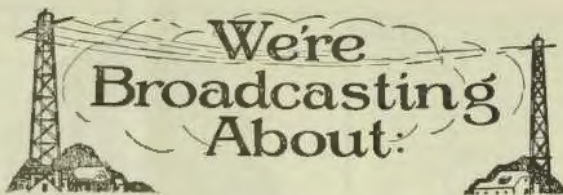
WIRELESS AND HARRY LAUDER.

I wonder what a plebiscite would reveal as to the most popular personality on the Australian air. In England opinion seems to have crystallised that Sir Harry Lauder takes the palm. It may be that when he has finished his last farewell tour, he may settle down to descriptive work through the microphone.

He has been described as having a genius for drawing pictures with his voice and patter. As the million listeners settle down to hearken to that rich, rolling voice, with its fruitily chuckle, the walls of their houses melt away and they walk with Lauder through Scottish villages, visit with him in parlors; better still, accompany him into warm, red kitchens, and taste the "taz" that is brewed for his arrival.

This is a rare gift, this color in a voice. I have heard one or two in Australian studios who possess it. It is the gift which alone can get the personality of the speaker or singer into the home. I have small doubt that the coming years will bring a tremendous development of this art. Microphone personalities will arise, like stage, like screen personalities. When they do come, they will earn big salaries, for they alone can be listened to as often as they perform without boredom. Nothing pulls so quickly as a voice too well remembered, that is only a voice, a bodiless quality. It is the voice that suggests the body, and the spirit and the whole personality that the listeners want to hear again and again. Lauder has it, I can well believe. Who in Australia possesses it in equal measure?

THE QUESTION whether it is desirable for the broadcasting stations to describe the encounters at the various stadiums will probably remain debatable. Trades Hall Station 2KY has broadcast vivid descriptions of a number of vigorous battles, and lately 2BL has been describing the fights from Rushcutter's Bay. Crowds of fight fans who could not attend the recent encounter between Sunny Jim Williams and Tiger Payne, but who listened in at home, congratulated themselves on saving the entrance fee when Mr. Hugh D. McIntosh's broadcast description of the battle was cut short by the black man knocking out his opponent in the second round. 2BL is still considering whether to make the broadcasting of fights a regular feature. The wishes of listeners is the main consideration.



AN ARTIST THAT calls for special mention, and who is broadcasting from 3LO, is Don Alfonso Zelaya, the South American Pianist. His entertainment is a combination of highly developed artistic talent as a pianist, and brilliant wit as an entertainer.

JOE PEARSON, so well known as a traveller, who has pedalled his bicycle to every corner of Australia, has been induced to give 2FC listeners some of his experiences on the air. Among other subjects, he will speak on the methods of transportation prevailing in Sydney in the 70's and 80's.

2FC LISTENERS are anticipating with pleasure the Sydney Harmonic Society's programme on Monday, January 31. The Royal Sydney Apollo Club will give its first broadcast performance on Monday, February 14. There will be concerts given by the Sydney Madrigal Society and others shortly.

THE ARTS AND CRAFTS Association of New South Wales is using 2GB on the evening of Friday, January 28, at 7.30, to make known the spheres of the Association's usefulness. Lecturers representing the Arts and Crafts Association will speak on subsequent evenings on such subjects as staining of wood for ornamental purposes, beaten copper work, Batik work, beaten silver. Special sessions of 2GB are being held in the afternoon from 3.30 to 4.30, when Mr. J. K. Powell talks on such subjects as cooling vegetables by steam and whole meal foods.

"FEEDING THE FAMILY" will be the subject of Mrs. Jordan's talk during the Women's Session at 2BL on January 28. Following Billiers' Music at Lunch time, Miss Monica Scully's pupils will be heard, and also a concert under the auspices of the City Girls' Sporting Association. The evening programme will be contributed by Miss Phyllis Atkinson (Mezzo-Soprano), Miss Amy Osting (Contralto), Mr. Peter Sutherland (Basso), Mr. C. L. Robertson (Elocutionist), and Miss Gwendoline Davey (Soprano). There will also be a sporting talk.

THE 2FC HOSPITAL Concert Party will visit the Royal South Sydney Hospital on Saturday, January 29, and will give an entertainment at the N.S.W. Industrial Blind Institution on Thursday, February 10.

MANY LITTLE adjustments with regard to time, have taken place in the 3LO programmes since the New Year, the latest of which is that on and after Friday, January 28, the musical programme is timed to start at 7.30 instead of 8 o'clock as hitherto.

ON SUNDAY, January 30, 2BL will broadcast celebrations in connection with the "Back to Wollongong Week." This will include special services at 11 o'clock and 7 o'clock. In the afternoon, Bible Class proceedings conducted by Mr. W. "Cairo" Bradley will be broadcast.

FEW items will be more popular this week than those contributed by the Australian Ladies' Pipe Band, which has recently been engaged to broadcast from 3LO. As is generally known, they have just returned from their World Tour, having carried all honors (or nearly all) before them, and won golden opinions wherever they appeared. During their trip abroad they added considerably to their already extensive repertoire, and we are promised some enjoyable selections arranged for the Pipes on the nights they are due to broadcast.

IT IS A matter of conjecture whether or no Australia will develop an original and distinct school of musical composition, or merely assimilate the style of modern European writers and thereby assume a cosmopolitanism which will prevent anything like a separate musical individuality. It would be a good omen if our young composers would look to their native land for inspiration and atmosphere, and 4QG helps towards the attainment of this ideal in broadcasting on February 3 the cornet solo "Wendouree," by Mr. Percy Code, an Australian composer, whose work will be in the hands of Mr. J. W. Burge-meister, the well known cornetist.

Don Zelaya Despises Jazz

*He will broadcast from 3LO on January 30
and from 2FC on February 5 in association
with Madame Elsa Stralia.*

LOOK for Nicaragua on a map of the world and you will find very little sight of that republic. But just glance at the cable news now and again, and you will notice how often it gets into the sensational headlines. Earthquakes, wars and revolutions have given Nicaragua so much publicity that everybody knows the place, although they do not know where it is. Even now it is the storm centre of an international situation.

Whilst his boyhood home is probably being riddled with bullets, Don Alfonso Zelaya, the famous pianist

academy. Whilst at school at West Point, Don Alfonso saw how peaceful the outside world was compared with his homeland, and realising that even his father had not received ample recognition for his patriotic work, he determined to seek his fortune elsewhere.

At school, he concentrated on musical studies and by the time he had graduated he was able to commence his concert career straight away. Later he abandoned the concert platform because of his opinions on music. Don Alfonso Zelaya sincerely believes he has a mission—and that is to counteract the effects of the jazz craze.

"Without a love and appreciation of good music no country can become great," he says. "Jazz is not music—it will destroy instead of build up. Music is one of the greatest powers for good in the world. It is the cause and foundation of all creation. Nothing can exist, nothing can be without harmony, and music is harmony. Music is felt by the soul, by the brain, just as life must be felt. But jazz expresses the animal nature, it is sensuous instead of spiritual."

Although he is also under contract to Tivoli vaudeville he does not play the lighter music to which vaudeville audiences are more accustomed. "I do not play jazz," says Don Zelaya, "and my audiences are just as well pleased without it." With a smile, he



Don Alfonso Zelaya, the hater of Jazz.

added: "I can fancy my teacher Careno, with whom I studied for five years in Paris, if he heard a jazz tune. He would go mad."

The programme at 2FC promises to be one of the best broadcast from that station for some time. Madame Elsa Stralia, who is well known to all 2FC listeners, rose to the present position which she occupies in the musical world, as is usual in such cases, through hard study and consistent attention to her work. She left Sydney a young girl, after appearing with various Williamson productions, and her first chance came when Alfred Butt, of Covent Garden, offered her the part of Donna el Vira in Don Giovanni, in association with Dettini, Scotti and McCormick.



Madame Elsa Stralia, broadcasting from 2FC on February 5.

whose father was president of the republic for fifteen years, is safe and sound in Melbourne under engagement to 3LO Melbourne, and to Tivoli vaudeville. He will give a series of classical recitals through 3LO, and, like a previous distinguished visitor, will accompany his pianoforte with little lectures on the psychology of music.

Zelaya is booked to return to America on February 5, and on his last night in Australia he will broadcast from 2FC, when in association with Madame Elsa Stralia, the well known dramatic soprano, and Maxim Brodie, tenor, he will render numbers of a novel character.

Zelaya, senior, was a patriot of the heroic order. For fifteen years he guided his turbulent little land through wars and revolutions. He wished that his son would follow in his political footsteps, and with that end in view, sent Don Alfonso to the United States to study at a military

Introducing . . .

Mary-Mary Quite Contrary

NOT more than a few weeks ago, Miss Jay McCallum, the original bedtime story teller at 3LO, renewed her acquaintanceship with the silver bells, cockle shells, and pretties minds all in a 3LO, after an absence of just two years abroad. Under her old name of "Mary Mary," she will tell stories to the children from the good old fairy tales of all countries.

While in England she was an Aunt for one hour only at the big London station of 3LO, and met there Uncle Peter and The Wicked Uncle, who is now quite good, and let her talk to a few million children at once, who were delighted to hear an Auntie from far Australia. "Mary Mary" is a most popular teller of tales at the Irishman Children's Hour, and her experience as Librarian at that pioneer Children's Library will benefit also that large audience of ever little listeners that 3LO attracts.

"Mary Mary" confesses that when she first faced the microphone that fateful day of October three years ago,

she was as frightened of it as little Miss Muffet was of the Big Spider, and she dared not tell her own people what she had succeeded in doing, for fear they should hear her break down in the middle. But she has one of those brothers that always seem to be listening when sisters have a big secret to keep, and he heard his sister's voice on a crystal set at a friend's place, and when "Mary Mary" returned home she found herself famous without having to break the news.

Although she was "Mary Mary" for only three months after that her departure for England left a gap in very many childish affections that will be glad to be refilled by her return to 3LO Melbourne's Children's Hour.



Coming Features in the Programmes

THROUGH THE COURTESY of the Navy League, 2FC have been given permission to broadcast from King's Hall on Wednesday, February 2, an address by Commander Arthur Marsden, R.N., on "The Navy and the Battle of Jutland." The studio will surround this talk with some very interesting items typical of the sea—shanties and old sea songs—and "Flinders Barr," which, by the way, hides the identity of a well known Naval Commander, in association with Mr. Herbert Fry, who has for some time been training a chorus of picked voices, will build up a real old time story of a night at sea. Listeners will hear the sound of the rising storm, the hauling of the capstan, the pipe of the bo'sun's whistle, and all the hundred and one things incidental to such an experience.

A UNIQUE religious ceremony will be broadcast by 2FC on Sunday, January 30, when the National Pilgrimage to the site of the proposed Roman Catholic Cathedral at Canberra will take place. A special line has been run from the Canberra Post Office to the brow of the hill, almost two miles distant. Archbishop Kelly (Sydney), Archbishop Mannix (Melbourne), and Archbishop Duhig (Brisbane) will be present, and a special Boys' Choir will travel from Goulburn to sing various Masses suitable to the occasion. Addresses will be given by the three Archbishops, and a tremendous gathering is expected. The ceremony is timed from 10.30 a.m. to 12.30 p.m., and from 2.30 p.m. to 3.30 p.m.

GREAT SUCCESS is attending the entertaining songs and duos given by those versatile artists, Mr. Alec Kellaway and Miss Estelle Rose, from 3LO. Some fine numbers are being sung by Mr. Kellaway, who is the possessor of a pleasing baritone voice, especially suitable for broadcasting, and the lighter side of the programme is supplied by his daintily clever partner in her character studies.

THOSE LUCKY PEOPLE who are free in the afternoon, will be delighted to know that after a brief absence, Will Page and his popular Players are back at 3LO again, and will broadcast the latest dance music every Tuesday afternoon. All listeners who have danced to this fascinating musical combination, will be glad to once again have the opportunity to issue invitations to their friends for "Tea and Foxtrot."

THE BIRTHS and deaths of famous composers is to be the subject of a series of talks from 2FC shortly. Mr. Adams will give various reminiscences and Mr. Ewart Chapple will intersperse compositions by the respective composers. In this way Schubert, Mendelssohn, Mozart and others will be commemorated.

SOME INTERESTING talks have been arranged by 2FC, including one by Clunies Ross, on the opportunities and attractions for young Australians in the realm of Veterinary Science. A talk on Western Papua will be given by Rev. B. T. Butcher, a Fellow of the Royal Geographical Society of London, and has been broadcast many times by 2LO. Mr. S. H. Bowden, whose popular talks are always so interesting, will speak on Pompeii, Its Unique Significance, from 2FC studio on Monday evening, January 31, at 7.40, and on Florence on the Arno on Sunday afternoon, February 13, at 4.30.

THE METHOD adopted by 4QG for the broadcasting of church services guarantees transmissions from various denominations in a very fair manner. The Registrar General's figures regarding the percentages of religion from various places of worship being broadcast according to the percentage of religions among the population of Queensland. There are quite a number of Danes, Norwegians and Swedes in Australia, and in Brisbane a Danish Lutheran Church exists. At the request of many Scandinavian listeners, 4QG has arranged to broadcast one or two afternoon services from this Church during the present year.

MR. HAROLD WALDEN, the well-known comedian and entertainer, who has been engaged to broadcast from 3LO, has broadcast in China, and his contributions to the programme on that occasion were heard, and commented upon, in Siberia. Mr. Walden has established an enviable reputation for himself in many parts of the world, and should appeal strongly to Australian listeners. His humor strikes a pleasantly original note, and his style is most refreshing.

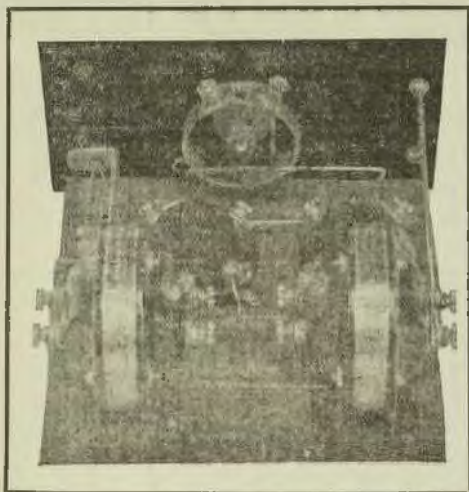
TO MANY of the listening public the popular song has a definite call. It expresses "sentiment" for them, and if delivered with a touch of artistry, the effect is often a happy one. Certainly the popular ballad loses nothing in its rendition by the well-known tenor, Mr. Gerald Cashman, who is making a welcome return to 4QG programmes. On February 1, the station will broadcast this artist in the favorite number, "The Land Where the Shamrock Grows."



SIGNOR ALBERTO MARINI, well known tenor, appearing with the Italian Opera "Quartette." He is heard regularly from 2FC.

Amplification Without Distortion

The outstanding feature of this push-pull two stage audio amplifier is that it will not distort reception when added to your set. It is simply made.



IN the construction of the average radio receiver there is a sacrifice to be made; either volume must be surrendered for clarity or clarity for volume. To retain both features it is necessary to build a receiver, requiring professional skill in the making, and beyond the resources of the average pursuer.

The trend of 1926-7 development is for clarity rather than volume. The listener in wants good music, and he demands a receiver giving clear and pure reception. The transmission and reception of sound without wree has lost its novelty. The fashionable custom of expressing wander at this discovery has fallen into desuetude, and the radio enthusiast who would swell his chest with pride when you could hear his little "three bumper beeping it out" (to use his own expression) three streets away, has joined the great majority.

The noisy receiver is a nuisance—we all agree upon that—but it raises the interesting question; when is a receiver noisy? Operated gently in the drawing room a set with one, perhaps two, stages of audio amplification may produce a sweet tone, filling the room with a pleasant sound without causing the wallpaper to quiver visibly or the piano strings to vibrate loudly in unison. The same set on the garden lawn one warm summer's night, seems weak, strains may be caught up by a passing breeze and wafted away from the listener. Then it is necessary to add an audio amplifying unit. The advantage of having this unit apart from the set is easily seen.

And in selecting an amplifier we hunt for one that will amplify with purity.

The writer had occasion some little while back to construct an amplifier for a two-valve receiver, having volume enough to fill a tennis court with dance music. This afforded me an opportunity to experiment with all types of amplifiers, resulting in the selection of a push-pull amplifier, which I believe to be the most suitable.

A push-pull transformer is not unlike an audio frequency transformer, and the pair that were used in this particular amplifier were of local make. To make sure of your amplifier reproducing the same as the writer's, I give below a shopping list of the parts used in my unit.

- 1 Pair Emmco Push-Pull Transformers.
- 2 Emmco Valve Sockets.
- 1 Emmco 30 ohm Rheostat.
- 1 Emmco S.C. Jack.
- 4 Lengths of Busbar wire.
- 1 Radion or Bakelite Panel, 7in. x 3 1/2in.
- 2 Bakelite Topped terminals and a few yards of low resistance flex.

Having purchased the above parts, proceed home, clear the best table in the house and get to work, starting in the following manner.

Observe Fig. 3, the panel drilling template of the amplifier. Note the rheostat is in the direct centre of the panel. Stick to this arrangement, it enhances the appearance of finished amplifier.

Righto, tear a leaf out of the kiddies' exercise book, and, if successful,

place the panel, 7in. x 3 1/2in., on top of it and draw the outline. Dissect the panel into four, and on the centre point make a small dot. This represents the rheostat hole. In the right hand bottom corner, 3in. from the bottom, and 1in. from the side, draw the two lines to meet and in this position the S.C. (single circuiting) Jack is to be affixed. Judge for yourself the positions of the two terminals on the left hand side of your Panel, but it is advisable, if possible, to stick to the measurements given. When you have finished this, cut the paper template to the size of the panel. You now have the full sized template, and all you have to do is place it on the panel and centre punch the holes. Drill these to the correct size of your instrument and when finished, mount the parts.

If you follow closely the back view of the set a very fair idea of the layout of valve sockets and transformers may be gathered. Screw the parts down in the way illustrated and then proceed to wire according to the instructions about to be given.

Make sure that the transformer with the marking INPUT is placed first, and the transformer marked OUTPUT second. Now fire away and join a busbar connection from the top terminal on the panel to the P terminal of the input transformer; and from the bottom terminal to the positive B marking on the same transformer. This constitutes the primary circuit of the first transformer. On this same transformer the marking G1, G2 and -F will also be found. As the numbers suggest G1 connects

with the aerial terminal of the first valve socket, and G2 with the grid terminal of the second valve socket. Do not bother about the -F marking for the present.

On the second transformers you will find the markings P1, P2 and B on the primary side, and TIT on the output side. P1 naturally connects with the plate terminal of the first valve socket and P2 with the plate terminal of the second valve socket. T and T constitute the two points of the S.C. Jack.

So much for the transformer wiring, with the exception of battery wires. The next and perhaps the most important part to be wired is the filaments. Valves are dear, so go very carefully. Connect the left hand F terminal of the first valve socket with the right hand F terminal of the second valve socket, and from this wire a soldered joint to the right hand terminal of the rheostat. Next join the right hand F terminal of the first valve socket with the left hand F terminal of the second valve socket. To make sure that you have done this correctly check it over with the back panel wiring diagram, Fig. 2. A circuit diagram is also given and this may substitute for the back panel wiring to the more advanced constructor.

This completes the busbar wiring and the next step is the various battery leads. These comprise six lengths of flex, about three feet each. Join one of these to the positive B terminal of the output transformer, one to the -F terminal of the input transformer, one to the left hand F terminal of the second valve socket, and two to the vacant terminal of the rheostat.

To connect the batteries to this amplifier, connect the positive B with 90 volts and one of the two flexes of the left hand F terminal of the second valve socket to the -B. The A battery wires constitute the remaining flex of the second valve socket to positive A and one of the two flexes of the rheostat to -A. The C battery wires come next. From the -F marking on the input transformer to -C and the remaining flex of the rheostat to positive C. 4.5 volts is found very satisfactory for C battery voltage.

The amplifier is now ready for use. Take two short leads of flex from the two terminals (one on each) on the panel to either your phone terminals or the S.C. Jack marking, being sure that the terminals marked B and P on the input transformer correspond to the B and P leads of the receiver to be amplified.

The writer has found that this amplifier is of very little use to a crystal set, there being practically no primary volume to amplify, but is very efficient when working on either

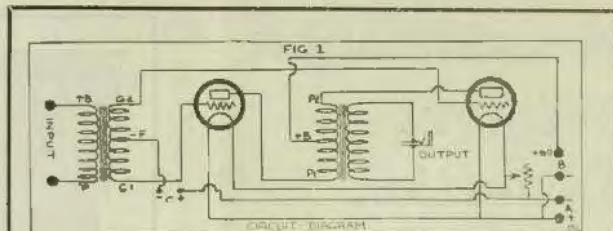


Fig. 1. The circuit diagram.

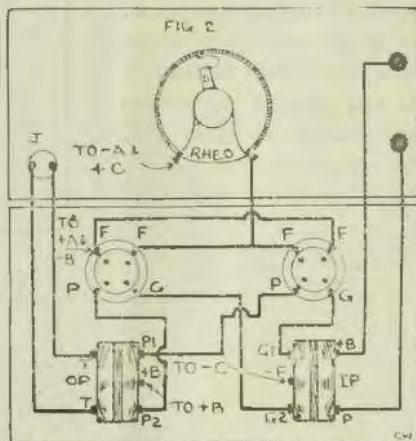


Fig. 2. The back of panel wiring diagram.

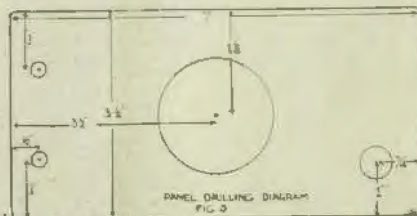


Fig. 3. The panel drilling template.

one or two valve receivers. He would not advise it for use on a three valve receiver, as it brings out distortion. Another point in the favor of this amplifier (and indeed most others) is

that no second set of batteries are required, and may be used in conjunction with the set already in use on the receiver.



Joins Amplion (A'sia), Ltd.

SHOWN here is Mr. W. J. McLellan, who has been appointed to the position of sales manager, of Amplion (A'sia), Ltd., Sydney. Although only 33 years of age Mr. McLellan has packed a great deal of wireless experience into this period. Educated at the London and Edinburgh Universities he later joined the Research Department of the General Electric Co., London. Leaving that concern, he came to Australia in 1921 and became manager of the wireless department of the British General Electric Co., Ltd., in which capacity he visited all Australian States and New Zealand.

He was a member of the committee of the last Radio and Electrical Exhibition held in Sydney, and is also a member of the committee of the Radio Broadcast Bureau.

Mr. McLellan has a genial personality which has made him many friends in the wireless world. He has been associated with many movements for the advancement of wireless and the announcement of his appointment to this important post with Amplion (A'sia), Ltd., will be received with pleasure by the trade generally.

BROADCAST FOR the first time through 2FC, Mr. Arthur Massey will give an Organ recital on Monday, February 7, from St. Clement's, Mosman. He will have the assistance of such well known artists as Mr. Bryson Taylor (tenor), and Mrs. A. Newton.

Mr. Radio-Dealer

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4. Do you want to make real profit in selling Mingay Super Radio Sets which are indeed "Super" products?
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If so—Tell us all about yourself now—what you can do—how much business you think you can do, and we will give you full particulars.

1927 is not only going to be—but is now, a real good Radio Year.

NEVER SINCE WE COMMENCED BUSINESS HAS OUR PRODUCTION BEEN IN FRONT OF SALES.

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A "PURE MUSIC AMPLIFIER"

as described in this issue of
WIRELESS WEEKLY

Can be built from the following parts—

	£	s.	d.
1 Bakelite Panel, cut square and polished, 7 x 3½ x ½	0	1	7
1 Ajax Wire Wound 30 Ohm. Rheostat	0	2	1
1 Ajax Single Circuit Jack	0	1	9
2 Black Topped Terminals, at 3d.	0	0	6
2 H. and H. Sure Grip Porcelain Sockets, at 4/-	0	8	0
1 Pair Thordarson Push-Pull Transformers,	3	10	0
Send for the Outfit Now!	24	3	3

VALVES. Recommended for the Push-Pull Amplifier.

	£	s.	d.
Radex 201A. A really good valve, 6 volts, .25 amps.	0	0	9
Econotron 201A. Wonderful valve; try one, 6 volts, .25 amps.	0	5	6
Radiotron UX201A. The Genuine Radio- tron, 6 volts, .25 amps.	0	12	0
Radiotron UX112. The Genuine Radio- tron Power Valve, 5 amps	2	5	0
Philips C509. 6 volts, .25 amps. Valve	0	13	3
Philips B406. 4 volts, .1 amps. Valve	0	13	6
Cusser Stentor Valve. 1½ volts, .15 amps.	0	17	6
Mullard PM4. 4 volts, .1 amps.	0	13	6

A REALLY GOOD STRAIGHT LINE FREQUENCY CONDENSER

"The New Quaker"
one hole fixing, FOR **9/9**
Brass Plates.

Can be adapted
to use in gangs
Capacity .0005 mf.

MORE PARTS AND ACCESSORIES AT LOW PRICES.

	£	s.	d.
Pocket "B" Battery Voltmeters. The "Yankoo," 0 to 50 volts	0	4	3
Spitfire Loudspeakers. Adjustable, sweet tone	1	5	0
Crescent Audio Transformers. 6 to 1 or 3½ to 1	0	13	6
"Econotron" Audio Transformers. Ratio 3½ to 1	0	8	6
"Econotron" 199 Valves. A Wonderful "Dry Cell" Valve, .05 amps.	0	6	9
Loudspeaker Extension Cords. 20ft. long	0	3	6
Loudspeaker Cards. 5ft.	0	1	9
Headphones, "The Cannonball," guaranteed, pair	0	12	6
N. and K. Headphones. Highly Sensitive, 4000 ohms, pair	0	18	6
Towers' Headphones. The Scientific, pair	0	19	6
3 Gang Condensers. "The Advance"	1	10	0
Accumulators. DTG 20 AH, 2 volts, 8 6; 4 volts	0	17	0
Exide Accumulators. DFG 45 AH, 2 volts, 16/-; 4 volts	1	12	0

Accumulator "B" Batteries. The best we know. The well-known Exide make— 80 Volts	4	10	0
100 Volts	7	10	0
The Farrand Cone Speaker. The best Cone Electron Aerial Wire. Use it anywhere, per carton	4	0	0
Valve Sockets, for English Valves. Stan- dard English	0	2	6
Polished Bakelite Sheet. 1in. thick, per square inch	0	0	02
Three Circuit Tuners. Radioakes, 17/0; Grodan	0	14	6
Bayer Kits. A Wonderful RF Outfit	1	5	0
Browning Drake Kits. Pinnacle, 23/6; Radioakes	2	2	0
Neutrodyne Kits, Grodan, 29/-; Radioakes, Neutralising Condensers. Grodan, 3/8; Brenade	0	3	0
Country Customers.—We pay carriage on orders of 10/- and over, except on Batteries, Cabinets, Speakers and Valve Payable Post Parcels. Guarantee.—Don't hesitate to order, all our goods are covered by a money back guarantee of quality.			

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How to Build an Efficient Aerial System

WHAT constitutes a good aerial?

This is a question which is answered several times each week in the queries answered department. Apparently there are hundreds of listeners who have traced faulty reception to their aerial, proving that it is the most neglected of all parts of the wireless set. The importance of the antenna system cannot be overstressed. Good and bad results are the product of good and bad aeriels, and after all, the aerial erection is not such a difficult job, nor such an expensive job, therefore, why not have it right to begin with.

When one is interested in wireless one develops an "aerial eye." As you pass through different streets you naturally pick out different aeriels. Some are high, some are low, some are good, and some are bad, and some ridiculous. The question always enters your mind—Why all these variations? Perhaps the wireless papers don't pay sufficient attention to aeriels. If this is so, here is our contribution.

On the aerial a lot depends. It is the one link in the chain of wireless reception which must be efficient, as it means the difference between broad tuning and sharp tuning. If it is too long, interference between stations results. On the other hand, if it is too short, difficulty of handling the receiver is noted. If, again, it is too low screening—resulting in loss of signal-strength—is present. With a reasonably good receiver almost any old type of aerial will function, even a wire clothes line will serve as an aerial, but the efficiency of such an arrangement is low.

Now, just what does an aerial do—how does it function? To explain this fully it would be necessary to write a technical treatise which no one would want to read. Briefly, however, the aerial system cannot be separated from the earth wire, as one is really part of the other. Just imagine that the aerial proper is one side of a condenser and the earth the other side. As a condenser it will become charged and the radio frequency energy rushes from the top of the aerial down through the set to the end of the earth wire, thence up again through the set to the top of the aerial, then changes direction and down it goes. This energy change of direction takes place several thousands of times a second, depending on the wavelength of the station being received. For instance, if a station

Speaking from 2FC one night the Technical Editor briefly described his own aerial system four miles from 2BL and 17 miles from 2FC.

In this article we give a more detailed description as requested in subsequent letters.

transmits on a wavelength of 300 metres the frequency or direction change will be one million.

Therefore, it follows that the current actually hasn't time to penetrate into the heart of the wire, but only flows along the surface or outside of the wire. Of course, this skin effect depends to a certain extent on the gauge of wire used. It may interest many to know that from 26 gauge to the smallest gauge the skin effect is practically non-existent.

Speaking of gauge of wire suitable brings us to two most important questions: "What gauge of wire is best?" and also, "How many wires will I use?" We will deal with the latter first.

Years ago it was a common sight to view a twin wire aerial on all ships and the two wires were on spreaders of a standard length of 7-ft. that is the two parallel wires were seven feet apart. Accepting this as standard practice, the radio man of four years ago invariably erected an aerial of a similar type. As time progressed, many of these aeriels were erected until it was accepted that a single wire was equally effective, in fact, it was contended that if anything, a single wire was preferable, as sharper tuning resulted.

Therefore, a single wire let it be. But as we want a large surface, we will have to consider wire gauge. Three strands of No. 20 gauge wire twisted together is the most popular gauge of wire used. It is pliable and easily handled, and, well insulated; a real good aerial results.

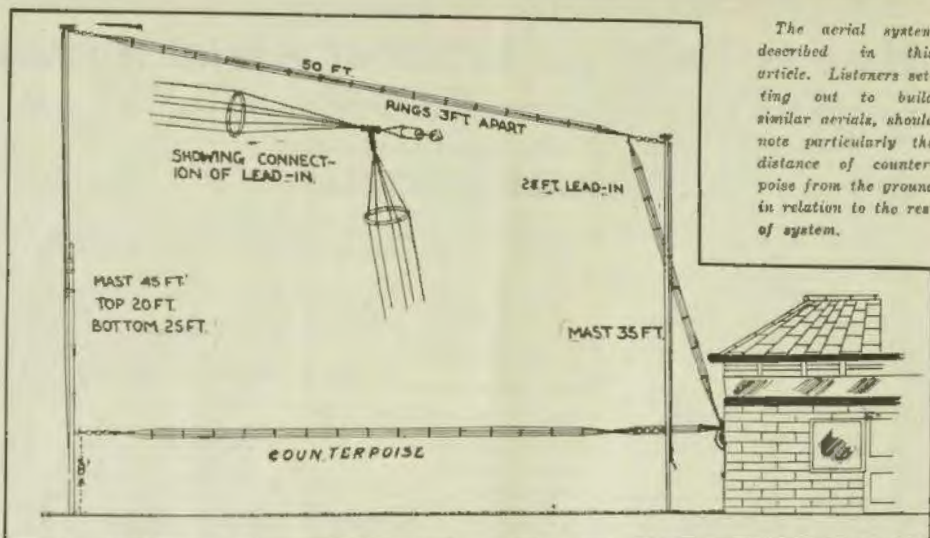
On the length of the aerial quite a lot depends. In the city areas, within 10 to 15 miles from a high power broadcasting station an ex-

tremely long aerial is not desired, otherwise selectivity suffers. Aerial shock excitation in the cause of quite a lot of troubles, and it is to be avoided. For some receivers, such as the Browning Drake and the Neutrodyne, a short, vertical aerial is necessary. Between 30 and 50 feet will prove satisfactory. But the man in the country, on the other hand, may find the 100 feet overall in a most satisfactory length. Overall means down lead, and earth included, so that if the down lead or lead in is 25 feet long and the earth wire 10 feet long, the flat top of the aerial should consequently be 65 feet long. For those away from a broadcasting station this aerial is very good.

As before mentioned, the earth is most important. A short earth wire is the ideal, and if 3/20 wire is used in the aerial, then a 3/20 wire will do for the earth lead. If again, a 7/20 wire is used for the aerial, a 7/20 wire should be employed for the earth lead. A very simple and most convenient method of carting the receiver or of getting a good earth, is to join the earth wire to a water-pipe. Soldering is preferable, but on account of the difficulty of soldering to a water-pipe full of cold water, resort is invariably made to an earth clip.

The water pipe should be scraped clean around that portion to which the earth clip is to be connected, and the earth wire should be clamped under the screw provided for the purpose. The clip should be very tightly clamped to the water pipe to ensure good contact. If a water pipe is not available, burying a sheet of galvanized iron about 3 feet square in some moist portion of the ground, as near to the receiving set as is possible may be substituted. Remember the ground should be moist around this plate, so it may be necessary to dig deeply to ensure moistness. To maintain a moist earth a good plan is to embed the galvanized iron sheet in coke and bury a piece of water pipe the same depth as the plate, allowing a few inches to protrude above the surface of the ground into which water can be poured. A sheet of copper also serves as an excellent earth plate.

Almost every aerial has directional qualities, but from the point of view of local reception this may be forgotten about. Still, we will explain these qualities for those who are not aware of their existence. In the standard inverted L aerial, that is an



The aerial system described in this article. Listeners setting out to build similar aeriels, should note particularly the distance of counterpoise from the ground in relation to the rest of system.

aerial with the downlead at one end, the stations in the direction of the lead in will be better received than those lying behind the free end. For example, if the aerial is so erected that the down lead is from the north end stations situated to the north will be better received.

A neat looking and popular aerial is the cage, sausage or navy type aerial. This consists of 5 to 7 single strands of wire joined to 2 inch rings at equal distances. The drawing at the head of this article will show what is meant.

There you see a five wire cage aerial with a similar lead in, and also a counterpoise built along similar lines. The wires are soldered equal distances apart around the outside edge of brass rings two inches in diameter, which again are spaced every three feet. The brass rings are the usual curtain rings, and are solid yet light in weight. However, here is what is required.

- 5 rolls of No. 20 Bare Copper Wire,
- 24 2-inch Brass Curtain Rings (for aerial and lead in).
- 3-lb. stick of soft solder.
- Sixpennyworth of spirits of salts.
- 6 Insulators.
- 1 Lightning Arrestor.
- 1 Lead in tube.
- Halyard Masts, etc.

All obtainable from Anthony Horderns and Sons, Ltd., or Nock and Kirby, Ltd.

We will not concern ourselves too much with the erection of the masts, leaving this to yourselves to devise.

Still, the poles which hold up this particular aerial are nice and high, one being 50-feet above the ground and the other being 35-feet high. The fifty footer is in two pieces, the bottom portion being 35 feet of 3-inch by 3-inch dressed oregon, whereas the top spar is 23 feet of 2in. x 2in. dressed oregon. Both these spars are painted white, three coats being applied to resist weather conditions. Both are bolted together, three feet being the overlap. A round wood block is nailed to the top as a truck. Six stays are used—three from the very top and three from the join, and if desired, a whipping stay may be taken from the middle of the top spar. The pulley should be securely fastened and the halyard run through this pulley and tied within 6 feet of the bottom to keep it out of the way when the mast is being erected.

The lower mast consists of 37 feet of 3in. x 3in. dressed oregon in one long piece, and it is painted and fitted with three stays or guy wires from the top underneath the truck. The usual block or pulley with its attendant halyard, is fitted as before. Of course, if one doesn't aspire to such heights, two 30 feet spars of 3in. x 3in. oregon will be quite suitable, provided tall buildings, etc., don't screen the aerial.

Now for receiving purposes, using the guys specified (wire clothes line makes a good guy or No. 12 fencing wire if preferred), it is not necessary to insulate the stays. For transmitting yes, break up the guys with in-

sulators, but for receiving, no, not unless there are about 12 to 15 guys per mast.

Decide where the poles are to be erected. If close to a broadcasting station then thirty feet apart is quite good, allowing for a down lead of between 20 and 30 feet. The one drawn is erected on the highest hill in Marrickville, and the dimensions are given. Actually, each mast is less than 2 feet in the ground. Neighbors came along to assist, and one person was allotted to each top guy and three men raised the mast. Quickly it reached the place—like the Grand Old Duke of York—when it was neither up nor down—that awkward stage—and as all neighbors were Scotsmen, it was precarious indeed. Think of what would have happened if someone had dropped sixpence on the ground. Oh! hated thought.

However, both masts were erected in their respective positions, and guyed securely to fences, etc., and were ready for the aerial. The making of the aerial took only 1 hour.

Firstly, two shallow sandwich tins were commandeered from the pantry, and into one was poured the raw spirits of salts. The other was placed over the gas and the stick of solder was melted into this sandwich tin. As many rings as could be were immersed in the spirits of salts, and rubbed together with a pencil, thus removing the lacquer. One by one these rings were transferred from the spirits and placed in the molten solder

which had the effect of leaving a coating of solder on each ring—tinning is the name of this process. Then, as each ring was tinned, it was quickly transferred to a basin of cold water, and washed, then wiped dry. All the rings were treated accordingly.

As the top portion of the aerial was fifty feet long, about 52 feet was measured off along the fence, and each of the 5 rolls were unwound to this length, the whole 5 wires being bunched together, and held taut along the fence. At distances of 3 feet a portion of fluxite was applied to each wire, and using what was left of the solder, each strand of wire was treated to a tinning, the soldering iron being used for this purpose.

Then each ring was soldered to these wires. One ring at a time was taken and at equal distances around the outside edge the five wires were soldered. This is a two man job, one man to solder and the other to hold the wires taut and to prevent tangling. One by one each ring was soldered to the wires and when all had been firmly soldered, the two ends were pulled into a conical shape and bound with wire and soldered.

The lead in was treated accordingly and joined to the flat top portion of the aerial, as shown in the drawing. Really the whole operation was very simple—it looks a lot on paper, but actually very easy of construction. Connections were then made to the halyards and the whole erected.

A lightning arrester was installed in the orthodox fashion, and a lead in tube carried the aerial through the wall to the set inside. Care was taken to keep the lead in wires away from the guttering, which, in fact, was joined to the earth wire. The completed aerial looks very attractive and is strong and will survive gales. The halyard is of Europe rope, that is tarred rope, which is not affected by weather conditions. Once a month or so it is lowered and inspected, and the constructor is advised to do likewise, particularly if there are any factory chimneys belching out black smoke, which settles on the insulators. Wipe them frequently.

A counterpoise is another useful unit in an aerial system. As may be gathered, the counterpoise is constructed in a similar manner. Actually it should be the same length and capacity as the aerial, but this was not possible, so this counterpoise is a few feet short. It is erected about 8 feet above the ground—clear of the clothes lines and fruit trees. It is equally well insulated, and has a lead in similar to the aerial. Of course, the usual water pipe earth is present, which is connected to the lightning arrester, thence into the room. Don't be satisfied with a counterpoise for earthing the aerial to—it is not wise.

Inside the room a Dilecto panel has the aerial lead in, the counterpoise lead in and the earth wire, which permits of a tidy arrangement. Flexible leads are available from each terminal and allows a quick convenient change over. To cut down the capacity of the aerial a series of small fixed condensers are always on hand, one or more of which is sometimes connected in series with the aerial.

Finally, don't be concerned about using bare wire—it is perfectly good. After having been erected for a while a coating forms on it which really acts in a similar manner to enamel. The aerial described has rendered yeoman service for over three years, and is good for quite a time yet. Build one like it—you will be pleased with it.

A Remarkably Clear Speaker

PRICE 25/-



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

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

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Our genuine annual Stocktaking Sale finishes on the 5th February, and therefore you have only eight (8) more days in which to secure your Radio or Electrical requirements at bargain prices. Everything reduced except a few proprietary lines. The following are some of our many bargains offered:—

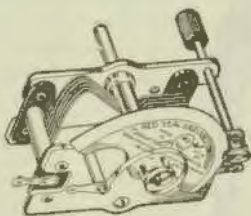
COILS—Honeycomb,

	Regular Price.	Sale Price.
25 and 35 Turns	2/2	1/10
50 Turns	2/4	1/11
75 Turns	2/6	2/-
100 Turns	2/8	2/3
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200 Turns	3/6	2/10

Larger Sizes up to 1,000 Turns at Reduced Prices.
Mounted, extra, 1/6.

COIL MOUNTS.

	Regular Price.	Sale Price.
2 Coil Vernier	5/-	4/-
2 Coil Genrad	9/6	7/8
3 Coil Inside Mtg.	15/-	10/-



SPECIAL SALE BARGAIN.

A.P. Twin Filament Valves,
American Socket, 6 Volt, 25
amps, det. or amplifier. Regu-
lar Price, 3/6.
Sale Price 2/10

TECHNICAL BOOKS.

50 per cent. off List Prices.

	Regular Price.	Sale Price.
Red Seal Low Loss, with Vernier (as illustrated)	15/9	12/8
H and H, .0005	6/-	4/10
Menominee .001, with Vernier Dial ..	14/6	11/8
Menominee .001 and .00025, Plain, without Dial	12/-	9/8

SETS.

Genuine reduction in 2, 3, 4 and 5 Valve Sets.
Call or Write for Special Prices.

	Regular Price.	Sale Price.
Manhattan Jr., as illustrated, 32/6 ..	28/-	26/-
Manhattan Sr., 46/- ..	32/6	32/6
Tower Spidre .. 32/6 ..	26/-	26/-
Tower Cone .. 60/- ..	48/-	48/-

VARIOCOUPERS.

Columbin, all Wave. Regular Price, 15/-	
Sale Price	10/-

HOME CONSTRUCTION RECEIVING SET.

The Famous "Wondertone" IV. Home Construction
Receiving Sets. Complete, as previously offered,
£19/17/6. Reduced to £15/18/-

Or with Dry Cell Type Equipment. Regular Price,
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Goods sent Value Payable Post (V.P.P.), and carry our usual guarantee or money refunded.



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Wiles' Wonderful Wireless

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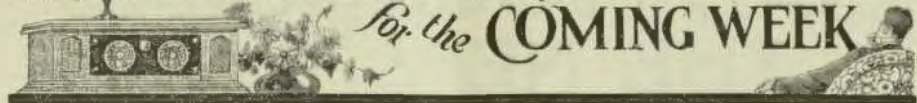
Branch: 384 Pitt St., Near Goulburn Street.

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Mail Order Department: 60 Goulburn Street.

BROADCASTING PROGRAMMES

For the COMING WEEK



Friday, January 28

2FC, SYDNEY

Farmer's Broadcasting Service.

Wave Length, 442 Metres.

EARLY MORNING SESSION.

- 7 a.m.—"Big Ben" and announcements.
- 7.5 a.m.—Music from the Studio.
- 8.15 a.m.—Official Weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services.
- 8.25 a.m.—Investment market, mining share market, metal quotations.
- 8.35 a.m.—Wool sales, breadstuffs markets, interstate markets, produce markets.
- 8.45 a.m.—"Sydney Morning Herald" news service.
- 8.55 a.m.—"Big Ben." Music from the Studio.
- 9 a.m.—Close down.

MORNING SESSION.

- 9.15 a.m.—The Chimes of 2FC.
- 9.20 a.m.—Music from the Studio.
- 9.45 a.m.—
- 9.55 a.m.—"Big Ben" and announcements.
- 10 a.m.—Late "Sydney Morning Herald" news service.
- 10.15 a.m.—Music from the Studio—10.20.
- 10.45 a.m.—A Morning Reading.
- 11 a.m.—"Big Ben." Australian Press Association and Butcher's Cable Services.
- 11.10 a.m.—Music from the Studio.
- 11.15 a.m.—A Talk on Home Cooking and Recipes, by Miss Ruth Furst.
- 11.30 a.m.—Close down.

MIDDAY SESSION.

- 12 noon—"Big Ben."
- 12.5 p.m.—Stock Exchange—First Call.
- 12.55 p.m.—Studio music.
- 12.55 p.m.—From Farmer's Oak Hall—Instrumental music from the Oak Hall Trio.
- 12.55 p.m.—From the Studio. Rugby Wireless News.
- 12.55 p.m.—
- 1 p.m.—"Big Ben." Weather information.
- 1.05 p.m.—Evening News—midday service.
- Producers' Distributing Society's Report.
- 1.20 p.m.—From Farmer's Oak Hall—The Oak Hall Instrumental Trio.
- 1.25 p.m.—Studio Music.
- 1.30 p.m.—Stock Exchange—second Call.
- 1.32 p.m.—Studio music.
- 1.45 p.m.—
- 1.50 p.m.—Studio music.
- 1.55 p.m.—
- 2 p.m.—"Big Ben."
- Close down.

AFTERNOON SESSION.

- 2.30 p.m.—The Chimes of 2FC. From the Studio—A Vocal Recital by the Students from the Macquarie School of Music.
- 3.30 p.m.—From Farmer's Oak Hall—Instrumental music from the Oak Hall Trio.
- 3.35 p.m.—Studio music.
- 3.40 p.m.—From Farmer's Tea Rooms—Miss Diana Booth, soprano.
- 3.45 p.m.—The Oak Hall Instrumental Trio.
- 3.55 p.m.—Studio Music.
- 4 p.m.—From Farmer's Tea Rooms—Miss May Craven, mezzo.
- 4.5 p.m.—The Oak Hall Instrumental Trio.

- 4.15 p.m.—Studio music.
- 4.20 p.m.—From Farmer's Tea Rooms—Miss Diana Booth, soprano.
- 4.25 p.m.—The Oak Hall Trio.
- 4.30 p.m.—Studio music.
- 4.40 p.m.—From Farmer's Tea Rooms—Miss May Craven, mezzo.
- 4.45 p.m.—Stock Exchange—third Call.
- 4.45 p.m.—Close down.

EARLY EVENING SESSION.

- 5.45 p.m.—The Chimes of 2FC.
- 5.50 p.m.—The "Hello Man" talks to the children.
- 5.55 p.m.—A Story for the older ones.
- 6.40 p.m.—From Farmer's Oak Hall—Vocal and instrumental music.
- 7 p.m.—A Talk on last minute sporting information by the 2FC Racing Commissioner.
- 7.15 p.m.—"Evening News" late news service—weather information.
- 7.30 p.m.—Bolshev's Market reports—Wool, wheat, stock, fruit and vegetable markets.
- 7.45 p.m.—A Talk by Mr. Chimes Ross on Veterinary Science.

NIGHT SESSION.

- 7.55 p.m.—The Chimes of 2FC.
- 8 p.m.—A Transmission from a J. C. Williamson, Ltd. Theatre.
- 8.30 p.m.—Broadcast from the Lyceum Theatre—Items by the orchestra under the conductorship of Mr. Emanuel Axman.
- 9.10 p.m.—From the Studio—Miss Virginia Bassett, contralto.
- 9.15 p.m.—From the Lyceum Theatre—the Vocal Act.
- 9.30 p.m.—From the Studio—Mr. Wally Rayns, comedian.
- 9.45 p.m.—Mr. Norman Frances, tenor.
- 9.45 p.m.—Broadcast from the Lyceum Theatre—Items by the orchestra under the baton of Mr. Emanuel Axman.
- 10.2 p.m.—From the Studio—Miss Virginia Bassett, contralto.
- 10.10 p.m.—Mr. Wally Rayns, comedian.
- 10.18 p.m.—Mr. Norman Frances, tenor.
- 10.25 p.m.—From the Westworth Hotel—Items by the Westworth New South Wales Orchestra, conducted by Mr. Sydney Simpson.
- 11 p.m.—"Big Ben." Announcements.
- 11.5 p.m.—Dance items from the Westworth New South Wales Orchestra until midnight.
- 12 midnight—"Big Ben." National Anthem.
- Close down.

2BL, SYDNEY

Broadcaster's, Ltd.

Wave Length, 358 Metres.

EARLY MORNING SESSION.

- 7.15 a.m.—G.P.O. Clock and Chimes.
- 7.18 a.m.—Musical programme from the Studio.
- 7.25 a.m.—Physical Training and Health exercises.
- 7.25 a.m.—Hints on Health.
- 7.30 a.m.—Physical training and health exercises.
- 7.40 p.m.—G.P.O. Clock and Chimes.
- 7.45 a.m.—Weather report.
- 7.45 a.m.—Sporting information.
- 7.50 a.m.—Broadcasters' 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.
- 10.5 a.m.—Musical programme from the Studio.
- 10.20 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.—Radio Market report.
- 11.17 a.m.—Fash market report.
- 11.19 a.m.—Vegetable Market report.
- 11.21 a.m.—Fruit Market report.
- 11.24 a.m.—Report on London Dairy Farm Egg and Poultry Markets.
- 11.30 a.m.—Ships in sail by wireless.
- 11.33 a.m.—Information to Inter-State and overseas mails.
- 11.35 a.m.—Shipping information—arrivals and departures.
- 11.37 a.m.—Weather report.
- 11.40 a.m.—WOMEN'S SESSION, conducted by Mrs. Jordan—Social Notes.
- 11.50 a.m.—Mrs. Jordan replies to correspondents.
- 12 noon—G.P.O. Clock and Chimes.
- 12.1 p.m.—Talk on "Feeding the Family," by Mrs. Jordan.
- 12.25 p.m.—News from the "Sun."
- 12.30 a.m.—G.P.O. Clock and Chimes.
- 12.31 p.m.—Sydney Stock Exchange Call.
- 11.53 a.m.—"Sun" Newspapers news service.
- 12.40 p.m.—Hillier's Instrumental Quartet, direction, Carol CASTLE.
- 1.30 p.m.—G.P.O. Clock and Chimes.
- 1.35 p.m.—Weather report.
- 1.38 p.m.—Sydney Stock Exchange Calls.
- 1.45 p.m.—Musical programme from the Studio.
- 2 p.m.—G.P.O. Clock and Chimes; close down.

AFTERNOON SESSION.

- Having information broadcast by courtesy of the "Sun."
- 2 p.m.—G.P.O. Clock and Chimes.
- 2.1 p.m.—Weather report.
- 2.3 p.m.—Afternoon Concert, directed by Miss Gwen Varley, of the City Girls' Amateur Sports Association, broadcast from Studio.
- 4 p.m.—G.P.O. Clock and Chimes.
- 4.1 p.m.—CIVIL SERVICE STORES THIO.
- 4.15 p.m.—Social Story.
- 4.20 p.m.—G.P.O. Clock and Chimes.
- 4.31 p.m.—Musical programme from the Studio.
- 4.35 p.m.—Producers' Distributing Society's Vegetable and Fruit Market report.
- 4.40 p.m.—Shipping information when available.
- 4.57 p.m.—Day's racing results on race days.
- 4.53 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.

- 5.45 p.m.—G.P.O. Clock and Chimes.
- 5.49 p.m.—Uncle George and The Kiddies.
- 6.8 p.m.—The Pupils of Miss Monica Scully will entertain the Kiddies.
- 6.40 p.m.—Musical programme from the Studio.

SPECIAL COUNTRY SESSION.

- 7 p.m.—G.P.O. Clock and Chimes.
- 7.1 p.m.—Australian Meteorology, Land and Fincher Co's report. Weather report and forecast by courtesy of Govt. Meteorologist.
- 7.5 p.m.—Stock Exchange reports.
- Producers' Distributing Society's Vegetable and Fruit Market report.
- Grain and Fodder report ("Sun").
- Dairy Produce report ("Sun").

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MANUFACTURED BY

Electricity Meter Mfg. Company Ltd.
SYDNEY, N.S.W.

7.15 p.m.—Country News from the "Sun."
8 p.m.—G.P.O. Clock and Chimes.
Broadcasters' Topical Chorus.
8.3 p.m.—Miss Phyllis Atkinson (mezzo-soprano).
8.10 p.m.—Broadcasters' Trio.
8.20 (cont.)—Miss Amy Ostinga (Contralto).
8.27 p.m.—The Senior Sporting Expert of the "Sun" will talk on the prospects of Saturday's racing.
8.47 p.m.—Mr. Peter Sutherland (Bass).
8.54 p.m.—Resume of following day's programme. Weather report and forecast to courtesy of Mr. G. J. Hayes, Government Meteorologist.
9.0 p.m.—G.P.O. Clock and Chimes.
9.1 p.m.—Broadcasters' Trio.
9.11 p.m.—Miss C. L. Robertson (Elocutionist).
9.18 p.m.—Miss Geraldine Daver (Soprano).
9.20 p.m.—Duet: Miss Amy Ostinga and Mr. Peter Sutherland.
9.30 p.m.—Interval.
9.35 p.m.—Broadcasters' Trio.
9.45 p.m.—Miss Phyllis Atkinson.
9.52 p.m.—Miss C. L. Robertson.
10.10 p.m.—The Ambassadors' Dance Band.
10.12 p.m.—Mr. Peter Sutherland.
Broadcast from the Ballroom of the Ambassadors. During the intervals between dances, News Reports by courtesy of the "Sun" Newspapers will be broadcast.
12 midnight—G.P.O. Clock and Chimes.
National Anthem.

2GB, SYDNEY

Theosophical Broadcasting Station.
Wave Length, 316 Metres.

9.20 a.m.—Chorus Hour by the "Chorus" Man—Mr. J. K. Powell.
9.45 p.m.—Talks to Children by Uncle Dan and Uncle Joe.
9.55 p.m.—Talks to Women.
1.30 p.m.—Music from the Studio.
1.50 p.m.—Instrumental Trio: DAN SCULLY, MURELLE LANG, ADA BROOK.
8.5 p.m.—Address by Dr. J. A. Van der Laan.
8.20 p.m.—Songs by Miss Nellie Ravens.
8.28 p.m.—Violin Solos: DAN SCULLY.
8.36 p.m.—Instrumental Quartet: DAN SCULLY, MONICA HODGKIN, MURELLE LANG, ADA BROOK.
8.50 p.m.—Announcements.
9 p.m.—Songs by Miss Nellie Ravens.
9.8 p.m.—Celli Solos: MURELLE LANG.
9.15 p.m.—Talk on Radio.
9.25 p.m.—Piano Solos: ADA BROOK.
9.30 p.m.—Selections from Opera with short talk. Artists: Miss Hilda Boyer, Mr. William Green, Mr. E. R. Butterworth and Miss Francis.
10 p.m.—Great Thoughts from Great Minds.

3LO, MELBOURNE

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

MIDDAY SESSION.

Accompanist AGNES FORTUNE
Announcer ALFRED ANDREW
12 noon.—Time Signal, British Official Wireless news from Rugby, Reuters and the Australian Press Association Cables. "Argus" and "Herald" news services.
12.30 p.m.—STUDIO ORCHESTRA:
"Russian Dance" (Friml).
12.40 p.m.—JANE BLACKMORE, contralto, "Think of Me" (Waterford).
"Where my Caravan has Rested" (Lahr).
12.47 p.m.—Meteorological Information, Stock Exchange Information, Weather forecasts for Victoria, Tasmania, South Australia, and New South Wales. News Report.
1 p.m.—STUDIO ORCHESTRA:
"Cat and Mice," "Homage" (Leonard).

1.10 p.m.—ALEC KELLEWAY and ESTELLE ROSE, The Singing Rover and the Character Impersonation.
"A Man's a Man," "Charles A and B," "Moss," "Burgundy."
1.20 p.m.—AUSTRALIAN LADIES' PIPE BAND:
"Selections of Scottish Tunes."
1.55 p.m.—STUDIO ORCHESTRA:
"The Butler's Carnival" (Stanley).
1.45 p.m.—JANE BLACKMORE, contralto, "In Old Madrid" (Fretter).
"Absent" (Metral).
1.52 p.m.—STUDIO ORCHESTRA:
"Sleeping Beauty" (Boghorn).
2 p.m.—Close down.

AFTERNOON SESSION.

Accompanist AGNES FORTUNE
Announcer ALFRED ANDREW
3 p.m.—STUDIO ORCHESTRA:
"Song of the Volga Boatmen" (Helm).
3.10 p.m.—"AD FAITH" of Messrs. Buckley & Nunn, Ltd., will give a Fashion Talk.
3.25 p.m.—THE ROYAL SCOTS:
"Ninette Nibum," "O Bacch" (Arbitt).
3.55 p.m.—PIE MAJOR CUNNINGHAM, Soloist.
4.00 p.m.—THE PREMIER FOUR:
"All for You."
"Caroline."
4.47 p.m.—ETHEL ESTELLE MARK TRIO:
Song: "Only the River Running By," Piano: "Madrigal" (Victor Herbert), Song: "Worthy Like a Rose" (Novin).
Violin: "Houdini" (Boothroyd-Kroutier).
4 p.m.—THE ROYAL SCOTS:
"I Love to be a Sailor" (Lauder), "Hickin Hame" (Walker).
4.19 p.m.—PIE MAJOR CUNNINGHAM, Soloist.
4.14 p.m.—THE PREMIER FOUR:
"Hercules."
"The Kolch.".
4.21 p.m.—STUDIO ORCHESTRA:
"The Flight of the Bumble Bee" (Rimsky-Korsakov).
4.50 p.m.—Mrs. M. CALLAWAY MAHOOD, Artist in Modern Life.
4.55 p.m.—"Herald" news service, Stock Exchange Information.
5 p.m.—Close down.

EVENING SESSION.

5.40 p.m.—CHILDREN'S HOUR. Answers to letters and Birthday Greetings by "Billy Bunny."
5.55 p.m.—THE PREMIER FOUR:
"That Certain Party."
6.2 p.m.—Story for the blind ones, by "Billy Bunny."
6.12 p.m.—AUSTRALIAN LADIES' PIPE BAND, will play some Highland melodies.
6.20 p.m.—Stories for the bigger children by "Billy Bunny."
"The Gipsy Ree."
"The Black Princess."
6.35 p.m.—"Argus" and "Herald" news services, Weather snippets, Shipping movements.
6.47 p.m.—Stock Exchange Information.
6.53 p.m.—Fish Market reports, by J. R. Barrett, 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, Straw, Hay, Juice, Dairy Produce, Potatoes and Onions.
7.0 p.m.—Market prices of Oranges and Lemons, by the Victorian Central Citrus Association.
7.14 p.m.—Agricultural Dept., Mr. S. A. SOCKE, "Fumigating Citrus Trees for Scale."

NIGHT SESSION.

Accompanist AGNES FORTUNE
Announcer MAURICE DUDLEY
7.30 p.m.—STUDIO ORCHESTRA:
"The Lark" (Maddalena).
Selection of Welsh Melodies (Request).

7.40 p.m.—LOTTIE DANIELL, soprano, "Caro Nome" (Bignoliotti) (Verdi), "The Blue Danube" (Strauss).
7.47 p.m.—BESSIE GADSDON, violin, "Cavatina" (Bart).
7.52 p.m.—E. MASON WOOD, baritone, "The Trumpeter" (Dix).
"Songs of Araby" (Clay).
8 p.m.—COLLINGWOOD CITIZENS' BAND, March: "Swatshous," "Fox Trot," "Risiera."
8.10 p.m.—T. E. WHIDBURN, Entertainer: "The Old in the Road," "Rough Christmas."
8.17 p.m.—AUSTRALIAN LADIES' PIPE BAND, Selections.
8.27 p.m.—THE ROYAL SCOTS:
"My Bonnie Lads," "Blue Bells of Scotland."
8.37 p.m.—COLLINGWOOD CITIZENS' BAND Naphthium Solo: "Zanetta".
Soloist, M. SCARLETON.
8.47 p.m.—ETHEL MARK TRIO:
Vocal: "Pale Moon" (Lagan), Pianoforte: "Escape Valentin" (Doinard), Vocal: "The World is Waiting for the Sunrise."
Violin: "Serenade Espagnole" (Chaminade, Kreisler).
8.55 p.m.—LOTTIE DANIELL, soprano: "At Night" (Lachmannoff), "Solara" (Bachmannoff).
9.10 p.m.—AUSTRALIAN LADIES' PIPE BAND: "Scottish Airs."
9.20 p.m.—E. MASON WOOD, baritone: "Floral Dance" (Mass), "The Blind Piousman" (Clacker).
9.27 p.m.—"CARDIGAN"—Mr. H. A. WOLFE, of the "Argus" and "Australian," will speak on Saturday's Race.
9.31 p.m.—DON ALFONSO ZALAYA, Famous South American Pianist: "Taranella" (Liszt), "Valse Mazarinette" (Zelinsky), "Sighs" (Bodner) (Miss Gushky).
9.50 p.m.—T. E. WHIDBURN, Entertainer: "My Dusky Rose."
"My Gal Sal."
9.58 p.m.—British Official Wireless news from Rugby. Announcements.
10.3 p.m.—Mr. D. K. LOVE will give a Technical Talk.
10.14 p.m.—ALEC KELLEWAY and ESTELLE ROSE, The Singing Rover and the Character Impersonation.
"The Rover," "Stories A and B," "Bucky from Babylon," "Provence."
10.30 p.m.—COLLINGWOOD CITIZENS' BAND
"Dancing Queen."
10.40 p.m.—THE ROYAL SCOTS:
"I'm a hector for You," "Tramming along."
10.50 p.m.—"Argus" news service. Announcements. Weather forecast.
11 p.m.—ORCH. GIGS TIGHT:
"Kathie in a hain, is knowledge which emanates from diable light," Zoraster.
11.1 p.m.—M.D. MILDAY MASTERS:
"Just a Bird's Eye-view," "Hushabye," "Avea," "Mary Len," "Calling me Home."
11.40 p.m.—and Save the King.

3AR, MELBOURNE

Associated Radio Co.

Wave Length, 484 Metres.

MORNING SESSION.

11.30 a.m.—British Official Wireless Press received from Rugby Super Wireless Station, England. Express train information. "Arg" News Bulletin exclusive to 3AR.
11.55 a.m.—Time Signal Chime from G.P.O. Studio Barometer and outside Thermometer readings. Events of the day.
12.5 p.m.—Musical Selections from the Studio.
1.20 p.m.—Stock Exchange News.
1.40 p.m.—Musical Selections.

FACTS

ABOUT

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- (a) Amplification with any valve and transformer depends greatly on the transformer impedance; the higher the transformer impedance the better the reproduction, particularly of the lower notes.

HENCE IT IS UNNECESSARY TO VARY THE IMPEDANCE OF THE TRANSFORMER TO MATCH THAT OF THE VALVE USED; ON THE CONTRARY, THE HIGHEST POSSIBLE TRANSFORMER IMPEDANCE SHOULD BE USED AT EVERY STAGE.

- (b) IMPEDANCE DEPENDS ON FREQUENCY, AND TO STATE TRANSFORMER IMPEDANCE WITHOUT STATING THE FREQUENCY AT WHICH IT IS MEASURED CONVEYS NOTHING.

A good transformer has a high impedance even at low frequencies to reproduce low notes satisfactorily. A transformer may have a high impedance at a comparatively high frequency, say, 500, and yet be a bad transformer because the whole range of male and female speaking voices, as well as most of the fundamental musical notes, are at frequencies below 500.



C.T.P. 285.

- 12.55 p.m.—Shipping Movements. Mail notices.
- 1.0 p.m.—Close down.
- AFTERNOON SESSION.
- 2.30 p.m.—RON, BREARLEY QUARTETTE: "Melodious Memories" (Plink).
- "Spanish Shawl".
- "Vivian Solo"; "Beretta" (Violatone).
- 4.00 p.m.—Time Signal Chime G.P.O.
- RON, BREARLEY QUARTETTE: "Two Arabesques" (Debussy) piano solo.
- "Smiling Eyes".
- "Do do nothing but rain."
- 4.30 p.m.—MR. R. STANLEY HAINES: Gardening talk to Children.
- 4.55 p.m.—Evening Amusement Guide.
- 5.0 p.m.—Time Signal Chime, Studio Barometer and Outdoor Thermometer reading. Close down.
- EARLY EVENING SESSION.
- 6.45 p.m.—The Children's Corner, UNCLE RAB.

EVENING SESSION.

- 7.45 p.m.—British Official Wireless Press.
- Studio Barometer and Outdoor Thermometer readings. Reading solicitations and sporting events of the evening week reviewed by FIELD GLASSES.
- 8.0 p.m.—Time Signal Chime G.P.O.
- MISS EUNA BIRKBECK, Violinist, "Carciole" (Wilhelm Tschau).
- "Mimel" (De Vecch Ar. J. Salmon).
- 8.7 p.m.—MR. JACK HARRIS, Harmonist: "I'm going to sing a song to you this evening."
- "Rites of Coward".
- 8.14 p.m.—MR. CHRIS HERBERT, Bass: "The Two Grenadiers" (Schumann).
- "All thro' the night" (Old Welsh).
- 8.22 p.m.—MR. KEN and OWEN JONES: The Hawaiian Instrumentals: "Kallima Waltz" (Keoki E. Awai).
- "Dressy Waives Walk" (Jack Alan).
- 8.30 p.m.—MR. E. STANLEY HAINES: The Weekly Gardening Club.
- 8.45 p.m.—MISS MINNIE MARKE, Soprano: "As in old Gardens" (Bisher).
- "Open the blue eyes" (Massened).
- 8.52 p.m.—MR. KEN, RAMAGE, Cello: "Pastorale" (Handel).
- "Orientale" (Cui).
- 8.59 p.m.—MR. MILTON CHICK, Baritone: "Give a man a horse he can ride" (Heald).
- "Now sleeps the crimson petal" (Ruger).
- 9.0 p.m.—MISS EUNA BIRKBECK, Violinist: "Benedictus" (Mackenzie).
- "Le Cygne" (St. Saens).
- 9.15 p.m.—MR. CHRIS HERBERT, Bass: "O night of stars and splendour" (Thompson).
- "Within these Holy Portals."
- 9.20 p.m.—MR. PHIL BRACY (Wingades): "Pioneering Days."
- 9.30 p.m.—MISS MINNIE MARKE, Soprano: "April is a Day" (Phillips).
- "In My Garden" (Lidule).
- 9.37 p.m.—THE HAWAIIAN INSTRUMENTALISTS will entertain us again: "Hawaii Hui Hui" (Awai).
- "On the Beach at Waikiki" (Kallima).
- "Pihihi Poi" (Ar. Keoki E. Awai).
- 9.45 p.m.—MR. MILTON CHICK, Baritone: "Miss my girl" (Aitken).
- "Sylvia" (Strindberg).
- 9.53 p.m.—MR. ROY RAMAGE, Cello: "Romance" (Towns).
- "Broken Melody" (Van Bienen).
- 10.0 p.m.—Time Signal Chime G.P.O. Studio Barometer readings. "Aps" News Bulletin exclusive to BAR.
- 10.1 p.m.—LEGGITT'S BALLROOM ORCHESTRA.
- 11.0 p.m.—Time Signal Chime. Close down.

4QG, BRISBANE

Queensland Radio Service.

Wave Length, 385 Metres.

MIDDAY SESSION.

- 12.55 p.m.—Time-In.
- 12.58 p.m.—Time Signal.

- 1.0 p.m.—Market reports. Weather information supplied by the Commonwealth Weather Bureau. News service supplied by "The Daily Mail" and "The Daily Standard."
- 1.20 p.m.—From Hotel Carlton. Lunch music from the Lounge, Hotel Carlton, played by Hotel Carlton symphony Orchestra.
- 2.0 p.m.—Close down.

AFTERNOON SESSION.

- 2.30 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.

- 6.0 p.m.—"Daily Standard" news. Weather information. Announcements.
- 6.30 p.m.—Rolling Stories by "The Sandman."
- 7.0 p.m.—Market reports. "Agriculture in Germany—A Queenslanders' Impressions"—No. 4 of a series by Mr. J. F. F. Reid, "Queensland Agricultural Journal."
- 7.30 p.m.—Stock Reports. Weather News Announcements.

NIGHT SESSION.

- 7.45 p.m.—Lecture Session. A talk arranged by the Worker's Educational Association.
- STUDIO CONCERT.
- 8.0 p.m.—Overture, "Sunshine and Showers" (Fabi), the Studio Orchestra conductors, Mr. A. K. Featherston, contralto solo, "At Last" (Lidule), Miss Alice Gill, vocal duet, "Tantum Ergo" (Bassi), Messrs. J. B. Clouise and G. Williamson, voice, "Golden Sunset" (Hall), the Studio Orchestra; tenor solo, "Red Devon by the Sea" (Clark), Mr. Geo. Williamson, four-voice (8), "Don't Bring me Pines" (Bass), (1) "The On-Ed," (Gunnard), the Studio Orchestra; tenor solo, "Spring" (Squire), Mr. E. E. Cornwall, Music and Mirch by "The Happy Boys" contralto solo, "Joek O' Haealdene" (Old Melody), Miss Ella Howie; petite rhapsody, "Song at Sunrise" (Manner), the Studio Orchestra.
- 9.0 p.m.—Metropolitan Weather Forecast. Baritone solo, "Green Hills O' Sumner" (Cante), Mr. J. B. Clouise; gavotte, "Dances of the Zephyrus" (Patent), the Studio Orchestra; contralto solo (1), "A Ring of Snow" (Benedict), (2) "A Requiem" (Wright, forte-Pieter), Mrs. Charles Willey; music and music with by "The Happy Boys" (Luna solo, "Friend" (Clara Davies), Mr. J. P. Cornwall; vocal duet, "The Moon Hath Raised Her Lamp" (Benedict), Messrs. J. B. Clouise and G. Williamson; contralto solo, "The Scottish Bluebells" (Barker), Miss Ella Howie; selection, "Her Besotted" (Herbert), the Studio Orchestra; tenor solo, "I Passed by Your Window" (Barker), Mr. Geo. Williamson; march, "The Gallant Adjutant" (Dreyer), the Studio Orchestra.
- 10.0 p.m.—"The Daily Mail" News. Weather News. Close Down.

SCL, ADELAIDE

Central Broadcasters, Ltd.

Wave Length, 395 Metres.

MORNING SESSION.

- 11.30 a.m.—G.P.O. Chime.
- 11.31 a.m.—Stock Duo Art number.
- 11.40 a.m.—"Advertiser" news service.
- 11.45 a.m.—Vocal number.
- 12 noon—G.P.O. Chime.
- 12.1 p.m.—"Advertiser" news service.
- 12.15 p.m.—Stock Duo Art number.
- 12.30 p.m.—Studio Orchestra; Selection, "The rebel maid"; fox trot, "Honey bunch"; waltz, "Every step toward Killarney"; bolero, "In old Madrid"; corset solo, "Non Est"; selection, "Betty"; "Miserere"; "Trotators"; "Mezzymakers' dance" finale, "War march of the priests."
- 1.25 p.m.—Ward & Co's Stock Exchange reports. Official weather synopsis and

station announcements.

2.0 p.m.—G.P.O. Chime.

AFTERNOON SESSION.

- 3.0 p.m.—G.P.O. Chime.
- 3.1 p.m.—Relay from Maple Leaf Cafe—Orchestral numbers.
- 3.15 p.m.—From the Studio—Conchery talk by Mrs. Corhill.
- 4.0 p.m.—G.P.O. Chime.
- 4.1 p.m.—Relay from Arcadia Cafe—Orchestral numbers. Soloist, Miss Bezi; Cantor.
- 4.35 p.m.—Stock Exchange reports general information and station announcements.
- 5.0 p.m.—G.P.O. Chime and close down.

EVENING SESSION.

- 6.30 p.m.—G.P.O. Chime.
- 6.31 p.m.—Stock Duo Art number.
- 6.35 p.m.—Children's Hour. Reader stories and nursery rhymes.
- 7.30 p.m.—Market reports by Dalgety & Co., S. G. Ward and Co., A. K. Hall and Co., A. W. Safford and Co., S.A. Farmer's Union.
- 7.40 p.m.—Sparting talk.
- 8.0 p.m.—G.P.O. Chime.
- 8.1 p.m.—Relay orchestral number from Messrs. Malcolm Reid & Co., Rundle Street.
- 8.15 p.m.—Song, "Espiration," Miss Millie McFarlane.
- 8.19 p.m.—Relay from Messrs. Malcolm Reid and Co.
- 8.30 p.m.—Song, Mr. L. Conroy.
- 8.34 p.m.—Relay from Messrs. Malcolm Reid and Co.
- 8.45 p.m.—Song, Mrs. J. L. Davie.
- 9.0 p.m.—G.P.O. Chime.
- 9.1 p.m.—Weather report.
- 9.3 p.m.—Haltz's wheat report.
- 9.15 p.m.—Selection, SCL Orchestra.
- 9.18 p.m.—Song, Miss Linda Wald.
- 9.25 p.m.—Recitation, Mr. Athol Lykke.
- 9.30 p.m.—Selection, SCL Orchestra.
- 9.35 p.m.—Song, "Have you," Miss Millie McFarlane.
- 9.45 p.m.—Cantata solo, Mr. Vera Rogers.
- 9.57 p.m.—Mr. L. Conroy.
- 10.00 p.m.—Selection, SCL Orchestra.
- 10.05 p.m.—Song, Miss Linda Wald.
- 10.14 p.m.—Cello solo, Mr. Ted Williams.
- 10.20 p.m.—Musical miscellany, Mr. Athol Lykke.
- 10.30 p.m.—"Advertiser" news service.
- 10.35 p.m.—Selection, SCL Orchestra.
- 10.45 p.m.—Song, Mr. L. Conroy.
- 10.51 p.m.—Selection, SCL Orchestra.
- 10.40 p.m.—Song, Mrs. J. L. Davie.
- 10.45 p.m.—Recitation, Mr. Athol Lykke.
- 10.47 p.m.—Song, "The garden of your heart," Miss Millie McFarlane.
- 10.50 p.m.—Selection, SCL Orchestra.
- 10.55 p.m.—Station announcements.
- 11.0 p.m.—G.P.O. Chime, National Anthem and close down.

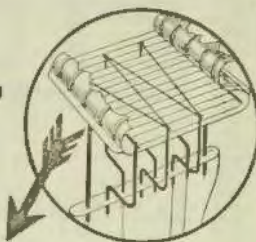
6WF, PERTH

Westralian Farmer's.

Wave Length, 1256 Metres.

- 12.30 p.m.—Time In.
- 12.55 p.m.—First local news bulletin, Market reports.
- 1.0 p.m.—Time signal from the Perth Observatory.
- 1.15 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
- 1.2 p.m.—STUDIO QUARTETTE.—Overture: "Anitra's Dance" (Grieg). "Edmont" (Beethoven). "Anselma" (Massened). "Allegro" Song" (Katschey). "Maarika No. 1" (Sant-Suomi) Selection. "Poppy". "American Patrol" (Mescham).

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find-



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a filament

so strong only a deliberate jar can break it.

so tough it can be tied like string even after burning for many hundreds of hours.

so rigidly supported by extended anchorages that all vibration is eliminated, and characteristics remain constant throughout its life.

so long that it gives more than five times the emission surface of an ordinary filament.

a working temperature

so low that no glow is discernible when working at the correct filament voltage. No precious electrons are wasted in bringing the Philips filament to white or even to red heat.

an economy

so wonderful that three dry cells or two small accumulator cells will now do the work for which formerly a large six volt accumulator was absolutely necessary. The B406 takes only one seventh of the current required by earlier types of valves.

CHARACTERISTICS:

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Fil. Amps1
Plate Volts	20-120
Amplification Factor	6
Impedance (ohms) P.	22,000

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VALVE
CATALOG

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ASK YOUR DEALER

PHILIPS

LAMPS AND RADIO

2 p.m.—Close down.
 2.30 p.m.—Tune in.
 3.35 p.m.—Musical programme.
 4.30 p.m.—Close down.
 7 p.m.—Tune in.
 7.5 p.m.—Musical evening for the Kiddies, by Aunt Evelyn and Uncle Henry, Perry, Teddy, Rag, and Duffy.
 7.55 p.m.—Stock and share intelligence. Market reports.
 Cables, News supplied by courtesy of "The West Australian" Newspaper Coy.
 8 p.m.—Time signal from the Perth Observatory.

8.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.

POPULAR NIGHT.

8.2 p.m.—Misses Mason and De Rozay, instrumental solo, of the S.S. Katoomba.
 Miss Gerrie Dobey, soprano:
 "Sleep and the Roses" (Tate).
 "A Red Rosebud" (Gibbs).
 "Just for a While" (Greville).
 "A Whispered Name" (Hartwell-Jones).
 Miss Evelyn Willis, A.R.C.M., Pianiste.
 10 p.m.—Second news bulletin, supplied by courtesy of "The Daily News" Newspaper Coy.
 10.40 p.m.—Close down.

7ZL, HOBART

Tasmanian Broadcasters, Ltd.

Wave Length, 468 Metres.

MORNING SESSION.

11 a.m.—G.P.O. Clock Chimes. The "MERCURY" news, Shipping, Commercial intelligence, Weather information. Ships within wireless range. Mail advice.
 12 noon.—G.P.O. Clock Chimes. Close down.

AFTERNOON SESSION.

5 p.m.—G.P.O. Clock Chimes. Musical items from the studio.
 5.30 p.m.—Robert stock exchange quotations.
 5.55 p.m.—Weather information.
 6 p.m.—G.P.O. Clock Chimes. Close down.

EVENING SESSION.

7 p.m.—CHILDREN'S CORNER with the "Radio Lady".

NIGHT SESSION.

8 p.m.—G.P.O. Clock Chimes. The "MERCURY" special Tasmanian news service. Railway auction produce sales. Weather information.
 8.5 p.m.—Robert stock exchange quotations.
 9.10 p.m.—Weekly gardening chat by Mr. George Nation.
 9.30 p.m.—Concert from the studio—Miss JEAN HIBBARD, Mezzo-soprano; Miss JEAN DODDS, Mezzosoprano; Miss AMY BUTTERWORTH, pianist; Mr. ROLFF LYONS, baritone; Mr. VICTOR PHAROAH, Banjo solo.
 9.16 p.m.—Poultry and produce reports from Roberts & Co., Ltd., Murray Street, Hobart.
 Tasmanian Districts Weather reports.
 9.55 p.m.—The "MERCURY" special interstate news service. Weather synopsis. Station announcements. Ships within wireless range. Week-end Travellers' information.
 National Anthem.

7.55 a.m.—Wool sales, breadstuffs markets. Inter-State market, produce markets.
 7.55 a.m.—"Sydney Morning Herald" news service.
 8 a.m.—"Big Ben" Music from the Studio.
 8.15 a.m.—Close down.

MORNING SESSION.

9.15 a.m.—The Chimes of 2FC. Music from the Studio.
 9.45 a.m.—Last minute sporting information by the 2FC Racing Commissioner.
 10 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 Morning Reading.
 11 a.m.—"Big Ben" Australian Press Association and Reuter's Cable Services.
 11.5 a.m.—Studio music.
 11.15 a.m.—A Gardening Talk by Mr. G. J. Lockey ("Rodrum"), until 11.30 a.m.

MIDDAY AND AFTERNOON SESSION.

12.05 a.m.—FROM THE SYDNEY SPORTS GROUND—The Inter-State Match, Victoria versus New South Wales. A detailed description of play with full scores every fifteen minutes.
 1.15 p.m.—Lunch-hour adjournment stores.
 FROM THE STUDIO—Stock Exchange information. "Evening News" midday news service. Weather Intelligence.
 1.30 p.m.—Music from the Studio.
 Race results from Bourkeford will be transmitted as received.

2 p.m.—"Big Ben" FROM THE SYDNEY SPORTS GROUND—Continuation of the Inter-State Match, Victoria versus New South Wales. Description of the play and scores at intervals.
 3 p.m.—FROM THE WESTWORTH CAFE—SYDNEY, The New Westworth Symphonic Dance Orchestra will play, under the baton of Mr. Sydney Simpson.
 3.15 p.m.—Further cricket descriptions. Interested with musical items from the Westworth Cafe.
 4.45 p.m.—Results of the afternoon's sporting events.
 6 p.m.—FROM THE SYDNEY CRICKET GROUND—Stumps drawn scores.

EARLY EVENING SESSION.

8.2 p.m.—FROM THE ROYAL SOUTH SYDNEY HOSPITAL—The "Radio Man," assisted by "Jerry" will talk to the children. FROM THE CHILDREN'S WARD.
 8.15 p.m.—FROM THE STUDIO—Dinner music.
 7 p.m.—Late "Evening News" news service. Weather information.
 7.25 p.m.—Resume of the day's sporting events.
 7.30 p.m.—Close down.

8 p.m.—FROM THE ENTERTAINMENT HALL OF THE ROYAL SOUTH SYDNEY HOSPITAL. A programme compiled by the Hospital Concert Party. Mr. Eric Garing introduces the Company.
 8.5 p.m.—Mr. Wilfrid Thomas, bassist: "Slipmats of Mine" (Sanderson).
 8.9 p.m.—Miss Heather Harding, soprano: "Iris" to Lucy" (Rubens).
 8.14 p.m.—Mr. Archie Seymour, entertainer.
 8.26 p.m.—Miss Margaret Grimshaw, mezzo.
 8.24 p.m.—Mr. Tom Lamond, tenor.
 8.28 p.m.—Miss Esild Hynn, Pianoforte solo: "My Dream" (MacDowell).
 8.31 p.m.—Mr. Wilfrid Thomas, bassist: "Tally Ho" (Lynch).
 8.30 p.m.—Miss Heather Harding, soprano: "At Dawning" (Cedman).
 8.40 p.m.—Mr. Eric Garing and "Jerry," in centrifugal song and story.
 8.50 p.m.—Miss Margaret Grimshaw, mezzo.
 8.54 p.m.—Mr. Wilfrid Thomas, bassist: "My Dream" (MacDowell).
 8.58 p.m.—Mr. Archie Seymour, entertainer.
 9.02 p.m.—Miss Heather Harding, soprano.
 9.5 p.m.—Mr. Wilfrid Thomas, bassist: "Young Tom o' Devon" (Russell).
 9.10 p.m.—Miss Margaret Grimshaw, mezzo.

9.14 p.m.—Mr. Archie Seymour, entertainer.
 9.18 p.m.—Mr. Tom Lamond, tenor.
 9.22 p.m.—Miss Heather Harding, soprano.
 9.26 p.m.—FROM THE STUDIO—Mr. Lionel Lawson, violinist: "Concerto in E Minor" (Mendelssohn).
 9.34 p.m.—Mr. Walter Reynolds and Miss Adie Collings, in popular numbers.
 9.47 p.m.—The 2FC Studio Dance Band and Mr. Len Maurice, popular baritone.
 9.50 p.m.—Mr. Lionel Lawson, violinist: "Serenade" (Schubert).
 9.55 p.m.—Mr. Walter Reynolds and Miss Adie Collings, Entertainers.
 10.3 p.m.—The 2FC Studio Dance Band, Conductor, Mr. Eric Peasno.
 10.15 p.m.—Mr. Laurence Halbert, in popular numbers.
 10.20 p.m.—The 2FC Studio Dance Band, with Mr. Len Maurice, popular baritone.
 10.30 p.m.—Mr. Walter Reynolds and Miss Adie Collings, Entertainers.
 10.40 p.m.—Mr. Lionel Lawson, violinist: "Reverie" (Wolffmuetz).
 10.45 p.m.—The 2FC Studio Dance Band.
 10.53 p.m.—Mr. Laurence Halbert, in popular numbers.
 11 p.m.—"Big Ben" and announcements.
 11.5 p.m.—The 2FC Studio Dance Band and Mr. Len Maurice, popular baritone, will be heard until midnight.
 12 midnight—"Big Ben" National Anthem. Close down.

2BL, SYDNEY

EARLY MORNING SESSION.

7.15 a.m.—G.P.O. Clock and Chimes.
 7.15 a.m.—Musical programme from the Studio.
 7.19 a.m.—Physical training and health exercises.
 7.25 a.m.—Hints on Health.
 7.30 a.m.—Physical Training and health exercises.
 7.45 a.m.—G.P.O. Clock and Chimes.
 7.48 a.m.—Weather report.
 7.48 a.m.—Sporting information.
 8.0 a.m.—Broadcasting special news service.
 8.0 a.m.—G.P.O. Clock and Chimes; close down.

MORNING SESSION.

Racing information broadcast by courtesy of the "Sun."
 11.0 a.m.—G.P.O. Clock and Chimes.
 11.1 a.m.—Weather report and forecast by courtesy of Mr. G. A. Marsden.
 11.3 a.m.—Sydney "Daily Telegraph" news service.
 11.30 a.m.—Women's Session conducted by Mrs. Jordan. Social notes.
 11.35 a.m.—Mrs. Jordan replies to correspondents.
 11.4 a.m.—Talk on "Simple Cooking for Children" by Mrs. Jordan.
 12.0 p.m.—Musical programme from the Studio.
 12.15 p.m.—"Sun" Newspapers news service.
 12.30 p.m.—G.P.O. Clock and Chimes.
 12.41 p.m.—London, Metal Quotations.
 12.45 a.m.—Paris in full by Wireless.
 12.50 p.m.—Weather report and forecast.
 12.55 a.m.—Shipping information: arrivals and departures.
 1.0 p.m.—Information re Interstate and overseas rates.
 12.45 p.m.—News from the "Sun" Cable Edition.
 1.0 p.m.—G.P.O. Clock and Chimes.
 1.15 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 fixtures for the day. Tennis, hockey, golf, bowls, surfing, baseball. During the afternoon sporting information will be broadcast by courtesy of the "Sun" newspapers.
 Racing results will be broadcast every half-hour.
 Musical programme from the Studio until the afternoon.

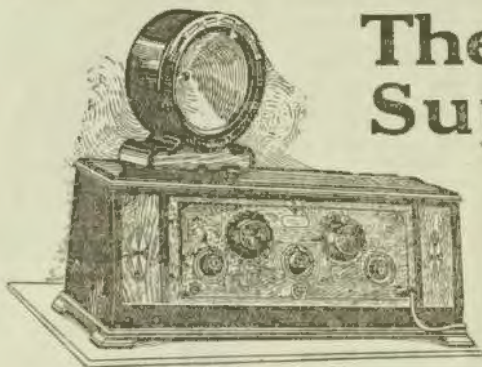
Sat., January 29

2FC, SYDNEY

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.
 7.5 a.m.—Music from the Studio.
 7.55 a.m.—Official Weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, commercial news, mail services.
 8.1 a.m.—Investment market, mining share market, social quotations.

See it—Hear it—and be convinced of the superlative qualities of this remarkably low-priced Receiver



The "Eclipse Super-Six"

Here is the most exclusive, the most powerful and selective of all Sets, a Super Six-Valve, within reach of the man of moderate means.

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The 'phones that ensure you perfect reproduction in speech, song or music. Regular Price, 25/-.

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Height, 22in., 16in. Bell.

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Mick Simmons Ltd

"The World's Greatest Sports Store"

Headquarters: 720G HAYMARKET, SYDNEY

And at BRISBANE

January 28, 1927.

5.9 p.m.—G.P.O. Clock and Chimes; slow down.

EARLY EVENING SESSION.

5.45 p.m.—G.P.O. CLOCK and Chimes.
5.46 p.m.—Evelyn George and the Kiddies.
6.40 p.m.—Musical programme from the Studio.

7.15 p.m.—Results of all sporting information, including racing, bowls, tennis, swimming, sailing, athletics, by courtesy of the "Sun".

7.30 p.m.—Country News from the "Sun" and results of all sporting and athletic fixtures.

8 p.m.—G.P.O. Clock and Chimes. Broad-casters topical chorus.

8.3 p.m.—The Mariahini Duo (Steel Guitars).

8.10 p.m.—Miss Grace Saville (Guitarist).

8.15 p.m.—Mr. B. Edwood Arzey (Tenor).

8.24 p.m.—Mr. David Smith (Baritone).

8.31 p.m.—Mr. Douglas Graham (Scottish Comedian).

8.38 p.m.—Mr. Herman Tearmaze (Bass).

8.45 p.m.—Miss Camille Alder (Dramatic Soprano).

8.52 p.m.—Resume of following day's programme. Weather report and forecast by courtesy of Mr. C. J. Mares, Government Meteorologist.

9.0 p.m.—G.P.O. Clock and Chimes.

9.1 p.m.—The Mariahini Duo.

9.2 p.m.—Driggs will talk on the Aborigines.

9.25 p.m.—Interval.

9.40 p.m.—Mr. David Smith.

9.47 p.m.—Mr. B. Edwood Arzey.

9.54 p.m.—Miss Camille Alder.

10.1 p.m.—Mr. Douglas Graham.

10.4 p.m.—Mr. Herman Tearmaze.

10.13 p.m.—The Ambassadors Dance Band broadcast from the Ballroom of the Ambassadors. During the interval between dances news reports by courtesy of the "Sun". Newspapers will be broadcast.

10.19 p.m.—G.P.O. Clock and Chimes. National Anthem.

3LO, MELBOURNE

THE STUDIO ORCHESTRA.

Accompanist..... AGNES FORTUNE
Announcer..... ALFRED ANDREW

11 a.m.—STUDIO ORCHESTRA:
"In a Persian Garden" (Lehmann).

11.10 a.m.—MASCOTTE BALSTON, soloist:
"Calling Me Home."

"Hawaiian Rose."

11.17 a.m.—WALTER SMITH, concert:
"Tyrolean Fantasia" (Holmes).

11.22 a.m.—THE PREMIER FOUR, Male Quartet:
"Heads for Louisville."

"New, Now, Now."

11.30 a.m.—STUDIO ORCHESTRA:
"La cinquantaine" (Marie).

11.40 a.m.—ALEC KELLEWAY and ESTELLE ROSE:
"Somewhere in the World"

"Stories A and B."

"Rosa."

"The World is Waiting for the Sunrise."

11.52 a.m.—STUDIO ORCHESTRA:
"In a Persian Garden"—Part II.

12 noon.—Time Signal. British Official Wireless news from Rugby. Reuters and the Australian Press Association cables. "Arms" and "Herald" news services. Shipping intelligence.

12.0 p.m.—STUDIO ORCHESTRA:
"Melodie Slave" (Moore).

12.23 p.m.—MASCOTTE BALSTON, soloist:
"By the Sign of the Rose."

"Then I'll be Happy."

12.40 p.m.—Meteorological information, Stock Exchange information, Shipping Intelligence. Weather forecast for Victoria, Tasmania, South Australia, and New South Wales. Ocean forecast. River reports.

1 p.m.—Time Signal.
1.1 p.m.—STUDIO ORCHESTRA:

"Hoopatra"—Selection (Strauss).
1.16 p.m.—THE PREMIER FOUR:
"Mother O' Mine."
"Magnolia Bloom."
1.17 p.m.—REGINALD BRADLEY, violin:
"Song of India" (Rimsky-Korsakov).
1.24 p.m.—THE ESTELLE MARK TRIO:
Solo—ESTELLE MARK; "If Love Were All."
Piano, MARGOT SHERIDAN; "Humoricos" (Percy Pitt).
Solo—ESTELLE MARK; "Wonderful One."
Violin: CECILIA KILDUFF; "Londonderry Air" (Old Irish).
1.41 p.m.—STUDIO ORCHESTRA:
"March of the Dwarfs" (Mousskowski).
2 p.m.—Close down.
2.00 p.m.—Description of TWO-YEAR-OLD HANDICAP, Epson Races, by "Musket" of the Sporting Globe.

AFTERNOON SESSION.

2.05 p.m.—Description of TRIAL PLATE, Epson Races, by "Musket," of the Sporting Globe.
2.15 p.m.—3LO MELODY MASTERS:
Fostered "Paradise Alley."
"Ere To-morrow Dawn."
"Honey Bunch."
"While the Years go Drifting by."
"Hi-diddle-diddle."
"Sunday."

2.30 p.m.—Description of BRISH STEEPLE CHASE, Epson Races, by "Musket," of the Sporting Globe.

2.35 p.m.—3LO MELODY MASTERS:
"Smiling Eyes."
"Ere To-morrow Dawn."
"Honey Bunch."
"Twilight."
"When the Red, Red Robin Comes Robbin' Along."

2 p.m.—Description of EPSON HANDICAP, Epson Races, by "Musket," of the Sporting Globe.

4.5 p.m.—3LO MELODY MASTERS:
"Copenhagen."
"Just a Cottage Small."
"The Last All My Love for You."
"Hi-Lo-The Merris."
4.59 p.m.—Description of TRIAL PURSE, Epson Races, by "Musket," of the Sporting Globe.

4.57 p.m.—3LO MELODY MASTERS:
"Mr. Girl Has Eye Trouble."
"Adorable."

"Say, Mister, Have You Met Rosie's Sister?"

4.45 p.m.—"Herald" news service. Race results, etc.

5 p.m.—Description of JUMPERS FLAT RACE, Epson Races, by "Musket," of the Sporting Globe.

5.5 p.m.—Close down.

EVENING SESSION.

5.20 p.m.—Singing results.
5.40 p.m.—CHILDREN'S HOUR. Answers to letters and Birthday Greetings, by "Bobby Bluegram."

5.25 p.m.—A Musical Programme arranged for children by Miss FRIDA NORTH. CYPE and her puppets.

6.05 p.m.—"Arms" and "Herald" news services. Weather information. Aerial information by the Australian Aerial Service, Ltd.

6.47 p.m.—Stock Exchange information. Overseas shipping.

6.52 p.m.—Fish Market reports, by J. R. HORRIS, Ltd.

6.55 p.m.—River reports.

6.58 p.m.—Market reports by the Vic. Producers' Co-operative Co., Ltd. Haymarket sheep sales. Poultry, Grain, Cattle, Hay, Straw, Jute, Daily Produce, Potatoes and Onions. Market prices of Grapes and Lemons by the Victorian Central Citrus Association Pty. Ltd.

NIGHT SESSION.

Accompanist..... AGNES FORTUNE
Announcer..... ALFRED ANDREW

7.15 p.m.—Under the auspices of the Australian Natives' Association, Mr. BARTRAM will speak on the "A.N.A. Charity Carnival."

7.30 p.m.—Mr. H. E. PESCOFF,
"Australia, To-Tree."
7.45 p.m.—Dr. J. A. LEACH, D.Sc.:
"Land-race and Water-race."
8 p.m.—First Act of "THE COUSIN FROM NOWHERE," transmitted from His Majesty's Theatre, by permission of J. C. Williamson.
Adapted by FRED THOMPSON, from the Books of HERMAN HALLER and HIDSAMUE Lyrics by ADRIAN ROBS, ROBERT S. THRELF, and DOUGLAS FURBER. Music by EDWARD KUNNE.

Cast:

Julia Van Osten..... MARGERY HICKLIN
Frodo..... FLOIE ALLAN
Joseph Edson..... EDWIN BRETT
Williamina (Widow)..... MARISS LE VAREE
Adrian Van Hired..... GUS BLUETT
A Stranger..... CLAUDE FLEMING
Another Stranger..... HUGH STEYNE
Carl..... STANLEY OGDERS
Jan..... HARRY WILLIAMS
The Twelve Tullips: Misses DAPHNE SELIG,
VATLE REEVES, ESTELLE BRAYDON,
IRENE MURPHY, MOLLY MURPHY,
TERRIE MAGNELL, GLADYS TAYLOR,
MARGARET LAWN, MERVIS SAYER, MAX
HARRIS, ROSE GOLDSTONE, HOLLY
FICKER.
Play Produced by HARRY E. BURCHER.

MUSICAL NUMBERS:

Quintette: "Onsie and Ansie" EDWIN BRETT, MARISS LE VAREE, FLOIE ALLAN, HARRY WILLIAMS, and STANLEY OGDERS.
Waltz Song, "Magical Moon," MARGERY HICKLIN.

Duet, "Oh, Be Careful," FLOIE ALLAN, GUS BLUETT, and THE TWELVE TULLIPS.

Female:
(a) Duet, "Spring Cleaning," MARGERY HICKLIN, FLOIE ALLAN.
(b) Solo, "Hello," CLAUDE FLEMING.

(c) Duet, "Casualty of Dreams," MARGERY HICKLIN and C. FLEMING.

(d) Trio, "Good Night," MARGERY HICKLIN, FLOIE ALLAN, and CLAUDE FLEMING.

8 p.m.—STUDIO ORCHESTRA:
Soloist—"Don Juan" (Moore).

8.10 p.m.—THE ROYAL SCOTS:
"When the Hills are White with Heather."
"Serenade" (Gold).

8.17 p.m.—AUSTRALIAN LADIES PIPE BAND:
Pipe Selections.

8.27 p.m.—ONE-ACT PLAY:
"KINDERS," by Lily Kinglake.

Characters:

Jack Warren..... Mr. Chas. R. DYSON
Anella Ann (otherwise Ender)..... Mrs. MAURICE DUDLEY

Scene—Jack's Chambers in the Temple.

8.47 p.m.—STUDIO ORCHESTRA:
"Serenade" (Rubinstein).

10 p.m.—British Official Wireless news from Rugby. Announcements. Sporting results.

10.10 p.m.—ESTELLE MARK TRIO:
Solo—ESTELLE MARK; "Just for a While."

Pianoforte—MARGOT SHERIDAN;
"Waltz in A Major" (Liszt).

Solo—ESTELLE MARK; "I Know a Lovely Garden" (D'Arlell).

Violin—CECILIA KILDUFF; "Aria" (Bach).

10.35 p.m.—MASCOTTE BALSTON, soloist:
"Nobody but You."
"Sweet Hawaiian Bunch."

10.33 p.m.—STUDIO ORCHESTRA:
"Lilac Time" (Schubert).

10.43 p.m.—THE ROYAL SCOTS:
"Bamburgh" (Waltz).
"Bamburgh in the Gown" (Lambert).

10.44 p.m.—3LO MELODY MASTERS:
"Don't You Go Up!"
"Freddie!"

"Kiss Me Baby."

11 p.m.—OUR GREAT THOUGHT:
"Made is the child of Prayer, the companion of religion."—Chateaubriand.

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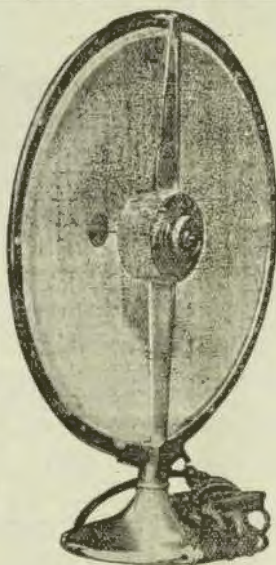
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The best position is obtained by adjusting the knob slightly around the position so obtained.

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CLARENCE STREET, SYDNEY

And at MELBOURNE, PERTH, BRISBANE, AUCKLAND & WELLINGTON, N.Z.

11.1 p.m.—41.0 MELODY MASTERS:
 "Pleasure."
 "Honey Bunch."
 "Hi-Ho-Hee Mowee."
 "Calling me Home."
 11.40 p.m.—God Save the King.

3AR, MELBOURNE

MORNING SESSION
 11.30 a.m.—British Official Wireless Press received from Rugby Super. Wireless Station, England. Express train information. "Age" News Bulletin, exclusive to 3AR.
 12 noon.—Time Signal Chime, G.P.O.; Studio Barometer and Outdoor Thermometer readings; 1st weather report; events of the day.
 12.50 p.m.—Musical Selections from the studio.
 12.55 p.m.—Stock Exchange News; Market reports; Foreign exchanges of the world, supplied by the courtesy of Messrs. Thoz. Cook and Sons.
 12.55 p.m.—Musical Selections.
 12.55 p.m.—Mail Notes; Shipping Movements.
 1.0 p.m.—CLOSE DOWN.

AFTERNOON SESSION.
EPSON RACING CLUB. Results after each race in six 15-minute intervals.
 2.30 p.m.—Selections by the **STUDIO QUARTETTE**—
 "Valse à la Salon" (Warrington).
 "Water Sprite" (Van Norman).
 "Fair Debutante" (Reynolds).
 "Hearts Desire" (Reynolds).
 "The Roary" (Nevin).
 "Selections from the Street Singer" (Simion).
 4.0 p.m.—Time Signal Chime, G.P.O.; 2nd Weather forecast.
MISS ALMA PILLER. Songs,
 "My Prayer" (Squire).
 "I Love the Moon" (Hubson).
MISS A. MARGJORY KIRING. Songs—
 "Saloon" (Agnes Lang).
 "The Duetman" (Brahma).
STUDIO QUARTETTE—
 "Metropolitan Nights" (Zamenhof).
 "Hundred of my Heart" (Grey).
 4.55 p.m.—Evening Amusement Guide; Studio Barometer and Outdoor Thermometer Readings.
 5.0 p.m.—Time Signal Chime, G.P.O.—CLOSE DOWN.

EARLY EVENING SESSION.
 6.45 p.m.—Children's Corner, **UNCLE MAC.**
EVENING SESSION.
 8.0 p.m.—Time Signal Chime, G.P.O.; Studio Barometer and Outdoor Thermometer Readings; British Official Wireless Press; Final Sporting Results; Local News.
 8.50 p.m.—**DANCE NIGHT.** The RHYTHMIC DANCE ORCHESTRA, related from the MAISON-DE-LUXE, Elwood. Latest Music under the leadership of Mr. GEORGE LEWIS.
 9.30 p.m.—Week-end travellers' information, supplied by courtesy of Victorian Railways Department and Melbourne Metropolitan Tramways Board.
 9.50 p.m.—**MAISON-DE-LUXE RHYTHMIC DANCE ORCHESTRA.**
 10.0 p.m.—Time Signal Chime, Studio Barometer and Outdoor Thermometer Readings.
 10.5 p.m.—**MAISON-DE-LUXE RHYTHMIC DANCE ORCHESTRA.**
 11.0 p.m.—Time Signal, G.P.O.—CLOSE DOWN.

4QG, BRISBANE

NO MID-DAY TRANSMISSION.

AFTERNOON SESSION.
 2.25 p.m.—Tune-in.
 3.30 p.m.—A Machine for Little Listeners by "Miss Warratah."
 4.30 p.m.—Close down.

EARLY EVENING SESSION.

8.25 p.m.—Tune-in.
 8.30 p.m.—The Children's Session. Bedtime Stories by "Uncle Ben" and "Uncle Jim."
 7.15 p.m.—Sporting News.

NIGHT SESSION.

7.45 p.m.—FROM THE SPEEDWAY: Motor Cycle Races.
 8 p.m.—FROM THE GAIETY THEATRE, TOOWONG: Orchestral Music.
 8.15 p.m.—FROM THE STUDIO:
 Contralto solo (a) "Take Heart Till Spring" (Hubson), (b) "The Blue Mountains" (Eagar), Miss Winifred Anderson.
 8.20 p.m.—FROM THE GAIETY THEATRE: Orchestral Music.
 8.30 p.m.—FROM THE STUDIO:
 Tenor solo—(a) "The Breeze" (Squire), (b) "Duetman" (Parker), Mr. J. Land: soprano solo—(a) "Good Morning, Brother Sunshine" (Lehman), (b) "Walters of Minnetonka" (Loomer), Miss Phyllis Verner.
 8.45 p.m.—FROM THE GAIETY THEATRE: Orchestral Music.
 9 p.m.—FROM THE NATIONAL SPEEDWAY: Motor Cycle Races.
 10 p.m.—FROM LENNON'S BALLROOM: Dance Music.
 10.30 p.m.—FROM THE STUDIO "The Sunshine Mail" News. Weather News.
 Close down.

MORNING SESSION.

10.40 a.m.—G.P.O. Chimes.
 10.51 a.m.—Studio Orchestra: Overture, "The midnight dream"; waltz, "Meet me at twilight"; 1st part, "Mazurka on the Banquet"; instrumental Trio, "Lend me your air"; selection, "The sunshine girl"; "Andra's dance," from suite; reverie, "Dream Shadows"; valse, "Yellow Jasmine"; finale, "Norma."
 11.55 a.m.—Ways & Means market reports, weather synopsis and station announcements.
 12 noon.—G.P.O. Chimes and close down.

AFTERNOON SESSION.

3.0 p.m.—From Studio—Stock Duo Art and Vocalio numbers, interspersed with sporting results.
 3.0 p.m.—G.P.O. Chimes and close down.

SCL, ADELAIDE

EVENING SESSION.

8.20 p.m.—G.P.O. Chimes.
 8.31 p.m.—Stock Duo Art number.
 8.36 p.m.—Children's Hour, Bedtime stories.
 7.00 p.m.—Market reports by Dalry & Co., R. C. Ward and Co., A. E. Hall & Co., R. S. Sandford Ltd., and S.A. Farmers' Co-operative Union.
 7.40 p.m.—Sporting results.
 8 p.m.—G.P.O. chimes.
 8.1 p.m.—Song, Miss Phyllis Gibbs.
 8.4 p.m.—Violin solo, Mr. Eric McLachlan.
 8.9 p.m.—Song, Mr. Howard Bauersche.
 9.13 p.m.—Recitation, Mr. George Whittle.
 8.20 p.m.—Song, "The little dandelion," Mrs. Howard Bauersche.
 8.24 p.m.—Relay from Floating Palais—Dance programme (Mr. Boske Smith's Jazz Orchestra).
 8.48 p.m.—Song, Miss Phyllis Gibbs.
 8.48 p.m.—Violin solo, Mr. Eric McLachlan.
 8.25 p.m.—Relay from Floating Palais.
 9.10 p.m.—Song, Mr. Howard Bauersche.
 9.13 p.m.—Recitation, Mr. George Whittle.
 9.20 p.m.—Relay from Floating Palais.
 9.40 p.m.—Song, Miss Phyllis Gibbs.
 9.44 p.m.—Violin solo, Mr. Eric McLachlan.
 9.48 p.m.—Relay from Floating Palais.
 10.1 p.m.—G.P.O. chimes.
 10.1 p.m.—Song, Mr. Howard Bauersche.
 10.4 p.m.—Recitation, Mr. George Whittle.
 10.10 p.m.—Violin solo, Mr. Eric McLachlan.

10.14 p.m.—Sporting results.
 10.20 p.m.—Relay from Floating Palais.
 10.58 p.m.—Station announcements.
 11 p.m.—G.P.O. chimes, National Anthem and close down.

6WF, PERTH

12 noon.—Tune in.
 12.5 p.m.—Musical programme, including pianoforte selections by Miss Evelyn Williams, A.R.C.M.
 12.47 p.m.—First local news bulletin, Market reports.
 Cables.
 1 p.m.—Time signal from the Perth Observatory.
 1.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
 1.2 p.m.—Close down.
 2 p.m.—Relay from Ascut Racecourse, Summer Meeting, W.A.T.C.
 7 p.m.—Tune in.
 7.5 p.m.—Aunt Evelyn will tell short stories to the kiddies.
 7.20 p.m.—Sports results, supplied by courtesy of "The Mirror" Newspaper Co.
 7.50 p.m.—Market reports.
 Cables News supplied by courtesy of "The West Australian" Newspaper Co.
 8 p.m.—Time signal from the Perth Observatory.
 8.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
 8.2 p.m.—Talk, "Bird Song," by Mr. F. Lawson-Whitlock.
 8.15 p.m.—Duet and Song.
 Sketches by Mr. and Mrs. E. Barracough—Miss Evelyn Williams, A.R.C.M. pianist.
 10 p.m.—Second news bulletin supplied by courtesy of "The Daily News" Newspaper Co.
 Sports results supplied by courtesy of "The Mirror" Newspaper Co.
 10.30 p.m.—Close down.

7ZL, HOBART

MORNING SESSION.

11 a.m.—G.P.O. Clock Chime, The "MERCURY" special news service, Shipping, Commercial intelligence, Weather information and sporting anticipations, Ships within wireless range, Mail advice.
 11.45 a.m.—Retail stock exchange quotations.
 11.50 a.m.—Bus Express information.
 12 noon.—G.P.O. Clock Chime, Close down.

EVENING SESSION.

7 p.m.—CHILDREN'S CORNER "Big Brother" chat to his Pa's.

NIGHT SESSION.

8 p.m.—G.P.O. Clock Chime, The "MERCURY" special Tasmanian news service, Retail stock exchange quotations, Weather information and sporting results.
 8.15 p.m.—Hobart stock exchange quotations.
 8.5 p.m.—Dance Numbers from the studio.
 9.45 p.m.—British officials' wireless news copied direct from Rugby by our own operator. Weather synopsis, Station announcements, Ships within wireless range.
 National Anthem.

Sunday, January 30

2FC, SYDNEY

MORNING SESSION.

10.25 a.m.—Announcements from the Studio.
 10.28 a.m.—FROM CANBERRA—on the occasion of the first National Pilgrimage to the site on which the Roman Catholic Cathedral is to be built at the Capital City.

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No. 6151—BP 22½ volt medium ..	0 12 6
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No. 231R.

10.30 a.m.—Pontifical High Mass with Christian Brothers' Boys' Choir Goulburn. Conductor, Rev. Brother Fenwick.
 11 a.m. (approx.)—Occasional Sermon by His Grace Archbishop Dubig, of Brisbane.
 12.30 p.m. (approx.)—FROM THE STUDIO.
 News session.
 12.45 p.m.—Close down.

AFTERNOON SESSION.

2.25 p.m.—Announcements from the Studio.
 2.30 p.m.—FROM CANBERRA. Continuation of the religious celebrations in connection with the Catholic National Pilgrimage. An Address to the visiting Archbishops and Bishops.
 Bishop Barry, of Goulburn, welcomes the Hierarchy.
 Addresses from Archbishop Kelly, Archbishop Menzies, Archbishop Dubig, and visiting Bishops.
 Further items by the Christian Brothers Boys' Choir, Goulburn, will be given during the afternoon. (Conductor, Rev. Brother Fenwick).
 5 p.m. (approx.)—Close down.

EVENING SESSION.

6.5 p.m.—"Big Ben" and announcements.
 7.5 p.m.—FROM THE PETERSHAM CONGREGATIONAL CHURCH—An Organ and Vocal Recital, arranged by Mr. Christian Heilemann.
 7.15 p.m.—The Evening Service from the Petersham Congregational Church. Preacher, Rev. A. P. Duran.
 8.25 p.m.—FROM THE BAND ROTUNDA. MANLY REACH. Items by the Manly Municipal Band, conducted by Mr. J. Bealson.
 9.20 p.m.—FROM THE STUDIO—Mr. Alfred Cunningham, baritone:
 "O, Star of Eve" (Tannhäuser) (Wagner).
 9.34 p.m.—Madame Emily Marks, soprano: "Air de Solenne" (Massetet), with explanatory remarks.
 9.42 p.m.—Mr. Lindley Evans, Pianist.
 9.52 p.m.—Mr. Alfred Cunningham, baritone: "In Shores Vale" (arr. Fermis).
 (b) "Invictus" (Hahn).
 10 p.m.—Madame Emily Marks, soprano: "Night" (Rachmaninoff) (with explanatory talk).
 10.8 p.m.—Mr. Lindley Evans, pianist.
 10.18 p.m.—Mr. Alfred Cunningham, baritone: "To Anthea" (Hatten).
 10.22 p.m.—Close down.

2BL, SYDNEY

10.45 a.m.—Special news service.
 11.0 a.m.—Back to Wollongong Week: Service to be held in St. Michael's Church of Englewood, Wollongong.
 3.30 p.m.—Bible Class conducted by Mr. W. "Cairo" Bradley.
 4.0 p.m.—Organ Recital.
 4.0 p.m.—G.P.O. Clock and Chimes.
 Close Down.
 8.45 p.m.—Children's Service conducted by Uncle George.
 7.0 p.m.—Service broadcast from the Methodist Church of Wollongong: organist, Mr. G. H. Platts, choirmaster, Mr. F. Frost, Minister, Rev. R. Druce.
 8.30 p.m.—Grand classical concert broadcast from the Crown Theatre, Wollongong. Orchestral items: Overture "Ragweed" (Thomas).
 "In a Monastery Garden" (Katalby). Illawarra Orchestral Society, assisted by Illawarra Male Voice Choir.
 Address by His Worship the Mayor of Wollongong, Alderman M. M. Smith.
 Vocal solo: "The Lord is My Light" (Allison).
 Mr. R. T. Garrad, "Abide with Me" (Liddle).
 Mrs. P. G. Buckland, "God is with Us"
 Choral Items: Hymn, "God is with Us" (Lied).
 "By Babylon's Walls" (Gosnell).
 Wollongong District Choral Society.
 Elocutionary item: "Ten Little Steps and

Slains". Miss Joyce Foley.
 Vocal solo: "Babylon" (Adams). Mr. E. Merin Curtis.
 Part song: "Nilidara" (Protheroe), Illawarra Male Voice Choir.
 Cornet solo: "Australia".
 Vocal solo: "O Divine Redeemer" (Gosnell).
 Mrs. P. G. Buckland.
 Vocal solo Selected.
 Mr. R. T. Garrad.
 Choral items: "The Challenge of Them" (Hagar), Wollongong District Choral Society.
 Elocutionary item: Selected, Miss Joyce Foley.
 Vocal solo: "Light in the Darkness" (Clemens). Mr. Martin Curtis.
 Part song: "Martyrs of the Arena" (De Rillo), Illawarra Male Voice Choir.
 Orchestra: "Plymouth Ho" (Ansell).
 10.40 p.m.—National Anthem.

2GB, SYDNEY

10.20 a.m.—Music from St. Alban's Church.
 10.30 a.m.—Morning Service from St. Alban's Liberal Catholic Church Celebration of the Holy Eucharist, Berango.
 12 noon.—Close down.
 5.45 p.m.—Music from Studio.
 7 p.m.—Lecture from Adyar Hall.
 8.15 p.m.—2GB Vocal Quartette:
 1. "Abide with Me."
 2. "Nearer My God to Thee."
 3. "Lead Kindly Light."
 8.25 p.m.—Song: "At Sunset" Eric Coster. Eva Coster.
 8.30 p.m.—Piano Solos: AMY MALLETT.
 8.34 p.m.—Song: "Sing break into Sing" (Mullinon). CLEMENT HOSKING.
 8.42 p.m.—Vocal Duo, "Barcarolle" (Offenbach), MARGARET BEST, EVA CROFT.
 8.46 p.m.—Song: "The Lark's Song" (Hartshorn). ETHEL JONES.
 9.20 p.m.—Violin Solos: LLOYD DAVIES.
 1. "Romance" (Beethoven).
 2. Chant "Hilido" (Rimsky-Korsakov-Kreisbu)
 8.48 p.m.—Ladies' Choir:
 1. "Daytime" (Hosking).
 2. "Dovey Dell" (Sargeant).
 3. "Sweet the Angels in Ringing."
 9.8 p.m.—Air "I will Know Thee" (El Cantu) MARGARET BEST.
 9.12 p.m.—Song: "Wanderer's Hirt" (London-Ronald). CLEMENT HOSKING.
 9.17 p.m.—Piano Solos: AMY MALLETT.
 9.25 p.m.—Song: "The Star Covered Tree" (Woodford-Fordson). EVA CASMIR.
 9.29 p.m.—Violin Solos: LLOYD DAVIES.
 1. Waltz (Brahms).
 9.33 Vocal Duo: "The Moon Hath Raised Her Lamp Above" (Bangelici).
 MARGARET BEST, EVA CROFT.
 9.54 p.m.—2GB Vocal Quartette:
 1. Silent Night.
 2. "A Song of the New Year."
 9.45 p.m.—God Save the King.

3LO, MELBOURNE

10.27 a.m.—Express Train information.
 10.30 a.m.—Transmission of BELLS from ST. PAUL'S CATHEDRAL.
 10.45 a.m.—SERVICE from ST. PAUL'S CATHEDRAL.
 Matins (Choral).
 Silence.
 Eucharistic.
 General Confession.
 Absolution.
 The Lord's Prayer.
 Versicles and Responses (Festal).
 The Psalter.
 Psalm 145.
 1st Lesson—Amos 5.
 The Te Deum and Benedictus, Martin in C.
 2nd Lesson—St. John 5.
 "The Apostles' Creed."
 The Collects.

Antiphon—"Lo! star-led chiefs Amyrion odours bring" (Crotch).
 Prayers.
 Hymn 6 (A. & M.), "At Thy Feet, O Christ, we lay."
 Sermon: REV. R. G. NICHOLLS.
 Hymn—Collection—219. "Hail to the Lord's Anointed"
 The Benediction.
 11.15 p.m.—British Official Wireless news from Rugby.
 12.30 p.m.—Close down.

AFTERNOON SESSION.

3 p.m.—PLEASANT SUNDAY AFTERNOON SERVICE, transmitted from Central Mission, Wesley Church, Lonsdale Street, Melbourne, Chairman: REV. J. H. GAIN. Orchestral Selection: Mr. G. M. Williams, conductor.
 Hymn, "O King of Kings, O Lord of Hosts" Prayers, Rev. J. H. GAIN.
 Hymn, "God Bless Our Native Land."
 Solo: Mr. BEN MOY LING— "Thanks be to God" (Dickson).
 Orchestral Selection.
 Solo: Mr. BEN MOY LING, "Out of the Deep" (Martini).
 Notices, Offering and Orchestral Selection.
 Address: THE VERY REV. DEAN HART, "AUSTRALIA, WHAT OF THE FUTURE?" National Anthem.
 Benediction.

EVENING SESSION.

7.40 p.m.—CHILDREN'S HOUR. Hymns by "The Pied Piper."
 Organ solo.
 Hymn, "All Glory, Land and Honor."
 Solo and Chorus: "Roses in the Garden."
 Hymn, "Hallel was the Evening Hymn."
 8.00 p.m.—"Billy Bunsy" will continue the story of the Christmas Carol.
 8 p.m.—Musical program by "The Pied Piper."
 Nursery Rhyme: "Old King Cole."
 "Dickory Dickory, Dock."
 "The Little Wagon."
 "There was a crooked Man."
 Piano solo: "The Little Soldiers."
 Chorus: "Lullaby."
 Solo: "A Little Birdie."
 (Chorus) "Lullaby Moon."
 Organ Solo.
 Chorus: "The Sandman Comes."
 8.25 p.m.—Answers to letters and Birthday Greetings by "Billy Bunsy."
 8.35 p.m.—Song by "Billy Bunsy," more about "David Livingstone."
 8.45 p.m.—Close down.

NIGHT SESSION.

DON ALBERTO ZELAYA, Pianoforte.
 SAFFO ARNAV, Soprano.
 Announcer: ALFRED ANDREW.
 8.40 p.m.—Transmission of Bells from St. Paul's Cathedral.
 9 p.m.—SERVICE FROM ST. PAUL'S CATHEDRAL.
 Evening (Choral).
 Hymn 297 (A. & M.): "Songs of Praise the Angels Sang."
 Sentences.
 General Confession.
 The Absolution.
 The Lord's Prayer.
 Versicles and Responses (Festal).
 Psalm 147.
 1st Lesson—Amos 5, 1-24.
 Magnificat.
 2nd Lesson—St. John, 6, 4, 41.
 None Dimittis.
 The Apostles' Creed.
 The Collects.
 Anthem: "When Jesus Our Lord was Born in Bethlehem" (Mendelssohn).
 Prayers.
 Hymn 336—"Lord, It Belongs not to My Care."
 The Sermon: CANON HANCOCK.
 Hymn (Collection) 302. "Come, ye Faithful, and Bless'd be the Anthem."
 The Benediction.
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8.40 p.m.—COLLINGWOOD CITIZENS' BAND, conductor, Mr. F. C. Johnson: Overture, "Golden Sonata."
8.47 p.m.—SONORA RECITAL, The Australian National Anthem.
 "Australia, Land of Ours," by Dudley Glass, Sung by a Mixed Chorus with Pipe Organ, Accompaniment, in the Ascham Hall, London.
8.50 p.m.—WESLEY CHURCH CHORUS, under the direction of Mr. W. J. JAMES.
 "Ave Maria" (Gounod) (Unaccompanied).
 "Hear My Prayer" (Mendelssohn).
 Soloist: MISS SAFFO ARNAV.
9 p.m.—DON ALFONSO ZELAYA, pianoforte recital.
 "Paraphrase" (Krieger).
 "Liebeslied" (Zelaya).
 "Prelude" (Tschickowsky).
9.15 p.m.—SAFFO ARNAV, soprano.
 Aria: "What Dares Not" (Puccini).
 Song: "Join the Dance" (William Jones).
9.22 p.m.—COLLINGWOOD CITIZENS' BAND:
 Part Song: "Sweet and Low."
 Cornet Duet: "The Warblers."
 Soloists: W. HONEY and L. BARRETT.
9.32 p.m.—WESLEY CHURCH CHORUS:
 "Come, O Thou Traveller" (Nobbs).
 (Unaccompanied).
 "The Heavens are Telling" (Husdn).
 "The Creation."
9.40 p.m.—COLLINGWOOD CITIZENS' BAND:
 Selection: "Rigoletto" (Verdi).
9.50 p.m.—"Argus" News service. Announcements.
9.55 p.m.—OUR GREAT THOUGHT:
 "Each succeeding day in the school of that which preceded."—(Pabian Szym).
10 p.m.—GOD SAVE THE KING.

3AR, MELBOURNE

MORNING SESSION.

10.50 a.m.—Bells from ST. JAMES' OLD CATHEDRAL.
11.4 a.m.—Morning Service from ST. JAMES' OLD CATHEDRAL, West Melbourne.
 Preacher, REV. A. E. F. YOUNG.
AFTERNOON SESSION.
3.0 p.m.—MR. JAMES A. COLLENZO, Tenor.
 "The Post Song" (La Bohème). (G. Puccini).
 "The Curtain Falls" (P. Hérold).
3.7 p.m.—MISS DORIS COOKSON, Soprano.
 "When Love is Kind" (Thomas Moore).
 "His Little Teddy Bear" (Sivori Levy).
3.15 p.m.—MR. T. R. NOALL, Elocutionist.
 "The Fireman's Wedding."
3.22 p.m.—MISS IDA HALL, Contralto.
 "The Hills of Donegal" (W. Sanderson).
 "Magie Eyes" (Robert Nelson).
3.30 p.m.—MR. RICHARD COLE, Baritone.
 "Thanks be to God" (Stanley Dickson).
 "The English Rose" (Edward German).
3.37 p.m.—MR. JAMES A. COLLENZO, Tenor.
 "The Star" (J. H. Rogers).
 "The Blind Pilgrimage" (Conslady Clarke).
3.45 p.m.—MISS DOBIE COOKSON, Soprano.
 "I Love the Jocund Dance" (H. W. Davies).
 "Daddy's Sweetheart" (Lisa Lehmann).
3.52 p.m.—MR. T. R. NOALL, Elocutionist.
 "The Teller."
4.0 p.m.—MISS IDA HALL, Contralto.
 "Garden of Happiness" (W. Wood).
 "Rise in the Bud" (D. Purser).
4.7 p.m.—MR. RICHARD COLE, Baritone.
 "Waive my Girl" (George Atken).
 "Selected."
4.15 p.m.—CLOSE DOWN.

EARLY EVENING SESSION.

6.0 p.m.—Children's Entertainment, LADY-BIRD.

EVENING SESSION.

6.45 p.m.—The Bells from ST. JAMES' OLD CATHEDRAL.
7.0 p.m.—Evening Service from CHURCH OF CHRIST, Senapati Street, Melbourne.
 Preacher, DR. J. L. BRANDT.
8.30 p.m.—MISS WINIFRED BULLIVANT, Soprano.
 "Invitation" (Barry).
 "Homings" (Del Negro).

8.37 p.m.—MR. PERCY BLUNDELL, Tenor.
 "Sigh no More, Ladies" (R. J. S. Stevens).
 "Lullaby" (Leonard).
8.44 p.m.—MR. ARTHUR GATLAND, Elocutionist.
 "Benidrago" (the Converted Prize Fighter).
8.54 p.m.—MISS DORIS JUDGE, Contralto.
 "Romance" (D'Hardolet).
 "To a Miniature" (May Hebrae).
9.1 p.m.—MR. FRANK THOMAS, Baritone.
 "From Oberon in Fairyland" (Slater).
 "Salute" (Aaron M. Loran).
9.5 p.m.—MISS WINIFRED BULLIVANT, Soprano.
 "Daisies from my Garden" (Honnas).
 "Just Beneath the Violets" (Hoswell).
9.16 p.m.—MR. HERBERT SUTCLIFFE, will talk on "THE HUMAN CELL LIFE."
9.20 p.m.—MR. PERCY BLUNDELL, Tenor.
 "The Old Spruce" (W. H. Spruce).
 "To the Sun" (Pearl Curran).
9.36 p.m.—MISS DORIS JUDGE, Contralto.
 "O' Night of Stars and Splendor" (R. G. Thomson).
 "Fido Mourns" (F. X. Logan).
9.41 p.m.—MESSRS. PERCY BLUNDELL, Tenor, and FRANK THOMAS, Baritone.
 Duet:—
 "The Moon Hath Raised her Lamp Above."
 "In this Solenn" (Pearl Curran).
9.50 p.m.—"Age" News Bulletin, exclusive to 3AR.
9.55 p.m.—CLOSE DOWN.

4QG, BRISBANE

MORNING SESSION.

CHURCH SERVICE.

The complete Morning Service held by the International Bible Students' Association will be relayed from the School of Arts.
11.0 a.m.—Morning Service.
12.30 p.m.—Close Down.

AFTERNOON SESSION.

BAND CONCERT.

The Concert provided by the Brisbane Citizens' Band will be relayed from the bandstand in the Botanic Gardens.
2.15 p.m.—Band Concert.
4.30 p.m.—Close Down.

NIGHT SESSION.

CHURCH SERVICE.

The Evening Service held by the Brisbane Christianisation Ecclesia will be relayed from the Centennial Hall.
7.0 p.m.—First Anthem—"In the Beginning was the World" (Simple); second anthem, "Send Out Thy Light" (Gounod); third anthem, "The Lord is My Shepherd" (Macfarren).

**7.15 p.m.—Service commences—Hymn, 181—"Jehovah full of Grace"; Scriptural Reading—Zechariah, Ch. 14, Verses 1 to 9; Prayer; Hymn, 186—"Arm of the Lord, Awake! Awake!" Lecture to be delivered by Mr. S. Gallier: "The Most Dramatic Event of All Time—an appeal to flee from the wrath to come" Anthem, 36—"O Thou that Hearst Prayer Upro Thee Shall A Fresh Come."
8.30 p.m.—Prayer.**

BAND CONCERT.

At the conclusion of the Church Service the Concert provided by the Greater Brisbane Municipal Concert Band will be relayed from the bandstand in Wickham Park.
8.30 p.m.—Band Concert.
9.30 p.m.—Close Down.

5CL, ADELAIDE

MORNING SESSION.

11 a.m.—G.P.O. chimes.
11.1 a.m.—Relay from Flinders Street Baptist Church.

EVENING SESSION.

4.30 p.m.—G.P.O. chimes.
6.31 p.m.—Stock Time 35 minutes.
6.38 p.m.—Children's Sunday stories.
7 p.m.—Relay from St. Bartholomew's Church, Preacher, Archdeacon Moses.
8.10 p.m. (Approx.)—Relay from concert from S.A.R. Institute—S.A.R. Band Instrumental concert, assisted by Miss Yvella Harvey, Mr. Syd. Morrell, Miss Jean Binchler (unaccompanied).
9 p.m.—Mr. P. H. Nicholls will address listeners.
9.15 p.m.—Instrumental and vocal concert continued.
10 p.m.—G.P.O. chimes, National Anthem and close down.

6WF, PERTH

10.45 a.m.—Time in.
11 a.m.—Morning service relayed from the Wesley Church, Perth. Preacher: Rev. J. W. Grove M.A., LL.B.
1.30 p.m.—Time in.
3.35 p.m.—R.S.L. Band and Vocal Concert relayed from the Zoological Gardens, South Perth. Conductor, Mr. Gen. S. Mellor.
7 p.m.—Time in.
7.5 p.m.—Children's Bedtime Stories, by Miss Lillie Post.
7.50 p.m.—Evening Service relayed from St. Andrew's, Presbyterian Church, Perth. Preacher, Rev. Geo. Tollock.
8.45 p.m.—Perth City Band and Vocal Concert relayed from the Government Gardens, Conductor, Mr. W. A. Balgownie.

7ZL HOBART

EVENING SESSION.

**7 p.m.—Service from Chalmers Presbyterian Church, Hobart, Saxena, National Anthem, Hymns, Psalm 139. Solo: I will sing of Thy great mercies (Mendelssohn St Paul) Miss JERITHA MARSHALL, Anthem, Song of Mr. Soul, Solo, Mr. ERIC STRANGHER, and Subject of German Citizenship and Christianity. Preacher, Rev. A. G. MAC-KINTOSH CARTER B.A.B.D. Organist, Mr. FRANK CARTER.
 At conclusion of Church service either Band concert from St David's Park or studio concert.
9.45 p.m.—The "MERCURY" special interstate news service. Weather synopsis. Station announcements. Close Down.**

Mon., January 31
2FC, SYDNEY

EARLY MORNING SESSION.

7 a.m.—"Big Ben" and announcements.
7.5 a.m.—Music from the studio.
7.10 a.m.—Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, commercial news, 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." Music from the studio.
8.15 a.m.—Close down.

MORNING SESSION.

9.15 a.m.—The chimes of 2FC. Music from the studio.
10 a.m.—"Big Ben" and announcements.
10.5 a.m.—Late "Sydney Morning Herald" news service.
10.15 a.m.—Music from the studio.
10.45 a.m.—Late sporting information by the 2FC Racing commissionaire.
11 a.m.—"Big Ben." Australian Press Association and Reuter's Cable Services.
11.10 a.m.—Music from the studio.
11.30 a.m.—Close down.



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MIDDAY SESSION.

- 12 noon.—Announcements.
- 12.05 p.m.—Stock Exchange, first call.
- 12.10 p.m.—Music from the studio.
- 12.45 p.m.—FROM FARMER'S OAK HALL—Instrumental item by the Oak Hall Trio. (Leader, Mr. Horace Kent).
- 12.50 p.m.—Rugby wireless news.
- 12.55 p.m.—Miss Alice Kent, mezzo.
- 1 p.m.—"Big Ben." Weather intelligence.
- 1.3 p.m.—"Evening News" midday news service. Producers' Distributing Society's report.
- 1.50 p.m.—FROM FARMER'S OAK HALL—The Oak Hall Trio.
- 1.55 p.m.—Studio music.
- 1.59 p.m.—Stock Exchange, second call.
- 1.59 p.m.—Music from the Studio.
- 1.45 p.m.—Miss Alice Kent, mezzo.
- 1.50 p.m.—FROM FARMER'S OAK HALL—Instrumental item by the Oak Hall Trio.
- 2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

- 3.30 p.m.—The chimes of 2FC. Musical items from the studio.
- 3.35 p.m.—FROM FARMER'S TEA ROOMS—The Oak Hall Instrumental Trio.
- 3.40 p.m.—Miss Muriel Humphries, contralto.
- 3.45 p.m.—The Oak Hall Trio.
- 3.52 p.m.—Music from the Studio.
- 4 p.m.—FROM FARMER'S TEA ROOMS—Miss Cecily Audibert, soprano.
- 4.5 p.m.—The Oak Hall Trio.
- 4.15 p.m.—Mr. Charles Lawrence and Mr. Len Maurice, in a popular duet.
- 4.25 p.m.—FROM FARMER'S TEA ROOMS—Miss Muriel Humphries, contralto.
- 4.25 p.m.—The Oak Hall Instrumental Trio.
- 4.35 p.m.—Music from the Studio.
- 4.40 p.m.—FROM FARMER'S TEA ROOMS—Miss Cecily Audibert, soprano.
- 4.45 p.m.—Stock Exchange, third call.
- 4.45 p.m.—Close down.

EARLY EVENING SESSION.

- 6.45 p.m.—The chimes of 2FC.
- 6.50 p.m.—The "Hello Man" talks to the children.
- 6.50 p.m.—A story for the older ones.
- 6.45 p.m.—Dinner music.
- 7.19 p.m.—Late "Evening News" news service. Weather intelligence.
- 7.25 p.m.—Daigety's market reports (wheat, wheat, stock), fruit and vegetable markets.
- 7.40 p.m.—A talk by Mr. S. H. Bowden, "Pompeii—its unique significance."

NIGHT SESSION.

- 7.55 p.m.—Announcements.
- 8 p.m.—"Big Ben." From the Haymarket Theatre, Sydney. Items by the Haymarket Operatic Orchestra of 20 members, under the baton of Mr. Stanley Porter.
- 8.25 p.m.—FROM THE STUDIO—Signor Alberto Marchi, tenor. "Bird Songs of Alentejo" (Coates).
- 8.29 p.m.—Mr. Joe Cahill, entertainer.
- 8.34 p.m.—Mlle. Marie Segur, soprano.
- 8.38 p.m.—FROM THE "HAPPY" HALL—Items by the Sydney Harmonic Choir, conducted by Mr. W. Bourne.
- 8.53 p.m.—FROM THE STUDIO—Commemorating the Anniversary of the Birth of Schubert, with a short talk by Mr. William Adams, illustrated by pianoforte solos by this composer, played by Miss Annie Hughes.
- 8.6 p.m.—From the Haymarket Theatre, Sydney—A Vocal Act.
- 9.0 p.m.—FROM THE STUDIO—The 2FC Studio Dance Band, conducted by Mr. Eric Fenwick.
- 9.24 p.m.—From the Baptist Hall—Items by the Sydney Harmonic Choir, conducted by Mr. William Bourne.
- 9.43 p.m.—FROM THE STUDIO—A Comedy Sketch, written and produced by Miss Annie Hughes, entitled "Mary in Paris," with atmosphere supplied by Mr. Joe Cahill, as a French writer. Miss Annie Hughes as

- "Mary," and Mlle. Marie Segur in vocal numbers.
- 10.15 p.m.—From the Haymarket Theatre, Sydney—Items by the Haymarket Operatic Orchestra, conducted by Mr. Stanley Porter.
- 10.30 p.m.—FROM THE STUDIO—Signor Alberto Marchi, tenor: (a) "Love is Mine" (Gartner); (b) "Laxy River" (Hind).
- 10.35 p.m.—The 2FC Studio—Dance Band, and Mr. Len Maurice, popular baritone.
- 10.45 p.m.—Mlle. Marie Segur, soprano.
- 10.52 p.m.—The 2FC Studio Dance Band, in popular numbers, with Mr. Len Maurice.
- 11 p.m.—"Big Ben" and announcements.
- 11.5 p.m.—Signor Alberto Marchi, tenor: "Charlie I Love You" (Goodman).
- 11.9 p.m.—The 2FC Studio Dance Band, and Mr. Len Maurice, popular baritone, in dance numbers until midnight.
- 12 midnight—"Big Ben." National Anthem. Close down.

2BL, SYDNEY

EARLY MORNING SESSION.

- 1.15 a.m.—G.P.O. Clock and Chimes.
- 7.10 a.m.—Musical programme from the Studio.
- 7.19 a.m.—Physical training and health exercises.
- 7.25 a.m.—Hints on Health.
- 7.30 a.m.—Physical training and health exercises.
- 7.45 a.m.—G.P.O. Clock and Chimes.
- 7.48 a.m.—Weather report.
- 7.48 a.m.—Shipping information.
- 7.50 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.
- 10.20 a.m.—News service from the "Daily Telegraph."
- 10.35 a.m.—Musical programme from the Studio.
- 11.0 a.m.—G.P.O. Clock and Chimes.
- 11.1 a.m.—News from "Daily Telegraph."
- 11.15 a.m.—Rabbit market report.
- 11.17 a.m.—Fish market report.
- 11.18 a.m.—Vegetable market report.
- 11.23 a.m.—Fruit market report.
- 11.25 a.m.—London Dairy Farm, Egg and Poultry Market report.
- 11.31 a.m.—Shipping in call by wireless.
- 11.35 a.m.—Information to Directorate and overseas mails.
- 11.35 a.m.—Shipping information, arrivals and departures.
- 11.45 a.m.—Weather report.
- 11.50 a.m.—WOMEN'S SESSION CONDUCTED BY Mrs. JORDAN; Social Notes.
- 11.50 a.m.—Mrs. Jordan replies to correspondents.
- 12 noon.—Talk on "Labor Saving," by Mrs. Jordan.
- 12.25 p.m.—News from the "Sun."
- 12.30 p.m.—G.P.O. Clock and Chimes.
- 12.35 p.m.—Society Stock Exchange Calls.
- 12.45 p.m.—"Sun" Newspapers news service.
- 12.48 p.m.—Huller's Instrumental Quartet, direction, Carl Castlin.
- 1.30 p.m.—G.P.O. Clock and Chimes.
- 1.41 p.m.—Weather report.
- 1.43 p.m.—Sydney Stock Exchange Calls.
- 1.46 p.m.—News from the "Sun."
- 1.48 p.m.—Musical programme from Studio.
- 2 a.m.—G.P.O. Clock and Chimes; close down.

AFTERNOON SESSION.

- Raising information broadcast by courtesy of the "Sun."
- 3 p.m.—G.P.O. Clock and Chimes.
- 3.1 p.m.—Weather report.
- 3.3 p.m.—Social Notes from the "Sun."
- 3.40 p.m.—News from the "Sun."
- 3.50 p.m.—Musical programme from the Studio.
- 3.55 p.m.—G.P.O. Clock and Chimes.
- 3.58 p.m.—News from the "Sun."
- 3.45 p.m.—Musical programme from the Studio.
- 4 p.m.—G.P.O. Clock and Chimes.
- 4.1 p.m.—News from the "Sun."
- 4.8 p.m.—Musical programme from the Studio.
- 4.15 p.m.—Serial Story.
- 4.31 p.m.—G.P.O. Clock and Chimes.
- 4.31 p.m.—News from the "Sun."
- 4.35 p.m.—Musical programme from the Studio.
- 4.45 p.m.—Producers' Distributing Society's Vegetable and Fruit Market reports.
- 4.50 p.m.—Shipping information when available.
- 4.52 p.m.—Day's trading returns in rate days.
- 4.53 p.m.—News from the "Sun."
- 4.54 p.m.—Results of night's programme.
- 4.55 p.m.—G.P.O. Clock and Chimes; close down.
- 4.55 p.m.—EVENING SESSION.
- 5.44 p.m.—G.P.O. Clock and Chimes.
- 6.46 p.m.—Uncle George and the Kiddies.
- 6.49 p.m.—Musical programme from the Studio.
- 7 a.m.—G.P.O. Clock and Chimes.
- 7 a.m.—Australian Mercantile Land and Finance Co.'s report.
- Weather report and forecast by courtesy of Govt. Meteorologist.
- Stock Exchange reports.
- Producers' Distributing Society's Fruit and Vegetable Market reports. ("Sun").
- Dairy Producer report ("Sun").
- Primary Producers' Newspaper report on London Butter Market.
- 7.16 p.m.—Country News from the "Sun."

EVENING SESSIONS.

- 8 p.m.—G.P.O. Clock and Chimes.
- Broadcasters' Typical Chorus.
- 8.3 p.m.—Newtown Race broadcast from Industrial Hall, Newtown.
- 8.35 p.m.—Miss Alice Payne, contralto.
- 8.39 p.m.—Neil Crane and Alf. J. Lawrence.
- 8.50 p.m.—Mr. Glen, Williams, baritone.
- 8.57 p.m.—Results of following day's programme.
- 9 p.m.—G.P.O. Clock and Chimes.
- Weather report and forecast by courtesy of Mr. J. J. Price, Govt. Meteorologist.
- 9.5 p.m.—Miss Eily Dalgleish, soprano.
- 9.9 p.m.—Miss May Newstrom, soprano.
- 9.17 p.m.—Newtown Band.
- 9.37 p.m.—Internal.
- 9.40 p.m.—Miss Alice Payne.
- 9.45 p.m.—Miss May Newstrom.
- 9.57 p.m.—Mr. Glen, Williams.
- 10.4 p.m.—Miss Eily Dalgleish.
- 10.11 p.m.—The Ambassadors' Dance Band broadcast from the Ballroom at the Ambassadors. During the intervals between dances news reports by courtesy of the "Sun" Newspapers will be broadcast.
- 12 midnight—G.P.O. Clock and Chimes. National Anthem.

2GB, SYDNEY

MORNING SESSION.

- "CHEERO HOUR," conducted by "CHEERO" Man.
- 9.30 a.m.—Music.
- 9.35 a.m.—Golfing Chat.
- 9.50 a.m.—Music.
- 10 a.m.—Home Entertainer Topics.
- 10.15 a.m.—Music.
- 10.20 p.m.—Five Minutes with Children at Home.
- 10.25 a.m.—Announcements; close down.
- 3.30 p.m.—Music.
- 3.40 p.m.—Humoristics Movements in Series.
- 3.55 p.m.—Music.
- 4.5 p.m.—News from everywhere for Women.
- 4.29 p.m.—Music.
- 4.30 p.m.—Close down.
- 6.45 a.m.—"CHEERO" SESSION," conducted by the "Cheero" Man.
- 7.15 p.m.—Women's Session.
- 7.30 p.m.—Music from Studio.
- 7.45 p.m.—Instrumental Trio. MONICA HORRER, MURIEL LANG, ADA BROOK.
- 8.8 p.m.—Address by "TILAVH," by J. J. Van der Loewer.
- 8.10 p.m.—Songs by Miss JOSEPHINE LEE.
- 8.10 p.m.—Songs by Miss JOSEPHINE LEE, MONICA HORRER, MURIEL LANG, ADA BROOK.
- 9 p.m.—Announcements.

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- 9.10 p.m.—Violin Solos by MONICA HORDER.
- 9.15 p.m.—Instrumental quartette: DAN SCULLY, MONICA HORDER, MURIEL LANG, ADA BROOK.
- 9.30 p.m.—Talk on Radio.
- 9.40 p.m.—Songs by Miss JOSEPHINE LEE.
- 9.47 p.m.—Duet for two Violins with Piano accompaniment: DAN SCULLY, MONICA HORDER, ADA BROOK.
- 9.55 p.m.—Violin Solos by LYOND DAVIES.
- 10 p.m.—"Great Thoughts from Great Minds."

- 4.25 p.m.—Description of A.N.A. Handicap, Williamstown Races, by "Musket," of the Sporting Globe.
- 4.30 p.m.—MISS FLORA PELL, Supervisor of Domestic Arts, Education Department: Domestic Science.
- 4.45 p.m.—Description of NEWPORT WATER, Williamstown Races, by "Musket," of the Sporting Globe.
- 4.50 p.m.—"Herald" news service. Stock Exchange information.
- 5 p.m.—Close down.

EVENING SESSION.

- 5.40 p.m.—CHILDREN'S HOUR. Answers to letters and Birthday Greetings by Miss Kookaburra.
- 5.55 p.m.—THE ROYAL SCOTS. Accompanist, ELSIE BRADSHAW. "Bonnie Dundee" (Scott). "My Ain Folk" (Lantern).
- 6.2 p.m.—"Little Miss Kookaburra" will tell her tiny Kookaburra sisters and brothers a dear little fairy story all for them, and wants them to guess the name of it.
- 6.12 p.m.—LEN GIBSON and his Mandolin. "Moony River." Humoresque (Dvorak).
- 6.20 p.m.—THE ROYAL SCOTS. "Lay My Head Beneath a Rose" (Falkenberg).
- 6.25 p.m.—"Arguing" (Foster).
- 6.27 p.m.—"Little Miss Kookaburra" will tell the bigger children some more about King Arthur and also Robinson Crusoe.
- 6.33 p.m.—"Argus" and "Herald" news service. Weather and Aerial Mail information by the Australian Aerial Service, Ltd.
- 6.43 p.m.—Stock Exchange information. Overseas shipping.
- 6.48 p.m.—Fish Market reports, by J. R. Horroth, Ltd.
- 6.51 p.m.—River reports.
- 6.54 p.m.—Market reports, by the Victorian Producers' Co-operative Co., Ltd. Hay, wool, sheep sales, Poultry, Grain, Cattle, Hax, Straw, Jute, Dairy Produce, Potatoes and Onions.
- 7.05 p.m.—Market Prices of Oranges and Lemons, by the Victorian Central Citrus Association Pty., Ltd.

NIGHT SESSION.

- Accompanist AGNES FORTUNE
Announcer ALFRED ANDREW
- 7.15 p.m.—Under the auspices of the Develop Australia League. Mr. A. S. MADDEN, Organizing Secretary: "Good News for Everybody."
- 7.30 p.m.—Under the auspices of the Warragul Progress Association: Talk on Warragul.
- 7.4 p.m.—Under the auspices of the Department of Agriculture. Mr. R. J. de C. TALHOT, Veterinary Officer: "Cure of Rotten Feet."
- 8 p.m.—STUDIO ORCHESTRA: "Omar Tone-Poems" (Alfred Hall).
- 8.10 p.m.—KENNETH IMPETT, baritone: "The Stock Rider's Song" (William James), "Spring of Borussia" (Hall).
- 8.17 p.m.—REGINALD BRADLEY, viola: "Slumber Song" (Dolly Stewart), "Sunation" (Hall).
- 8.27 p.m.—THELMA NEILL, soprano: "Australia Land of Ours" (Dudley Glass), "The Little Bird" (Gleason).
- 8.34 p.m.—ALF. and VERA FLETCHER, Melba Accordion Selections "Medley of Popular Airs."
- 8.44 p.m.—SYDNEY HENRY: "Selections from the Sentimental Bloke" (Dennis).
- 8.54 p.m.—TRIO, viola, melo, and piano: "Gamin in E Flat" (Lavater), "A Talk on Mr. J. HENRY ROSS: A Talk on Foundation Day."
- 9.20 p.m.—ROBERT MOLYNEUX, baritone: Popular Australian Songs: "That Old Bush Shanty" (O'Hagan), "The Wagoner" (Wheat).
- 9.27 p.m.—WILLIAM JAMES, pianoforte: "Three Spanish Dances" (William James), 1. Jota, 2. Bolero, 3. Vals Espagnole.

- 9.37 p.m.—GLADYS MACDOWELL, contralto: "The Thrush" (Henry Tate), "The Sibone" (Henry Tate).
- 9.44 p.m.—British Official Wireless news from Rugby: Announcements.
- 9.54 p.m.—STUDIO ORCHESTRA: "African Tone-Poems" (Alfred Hall).
- 10 p.m.—KENNETH IMPETT, baritone: "Comrades of Mine" (William James), "The Blue Mountains" (Rigay).
- 10.11 p.m.—Selections from "Ginger Mick," by SYDNEY HENRY (Dennis).
- 10.19 p.m.—ROBERT MOLYNEUX, baritone: Popular Australian Songs: "Down by the Murray" (O'Hagan), "Gundagai" (O'Hagan), "The Wagoner" (Wheat), "Italian Scenes" (Alfred Hall).
- 10.33 p.m.—THELMA NEILL, soprano: "The Moon of Roses" (Cousta), "The West a Glory" (Cousta).
- 10.40 p.m.—WALTER SMITH, cornet: "South Austral Skies" (Cods), "Wendurrah" (Cods).
- 10.48 p.m.—GLADYS MACDOWELL, contralto: "The Fire" (Henry Tate), "The Sibone" (William James).
- 10.53 p.m.—"Argus" news service. Weather forecast.
- 11 p.m.—OUR GREAT THOUGHT: 21. "Our country is the common parent of all"—Cicero.
- 11.1 p.m.—ELO MELBOLDY MASTERS: "Lay my head beneath a rose," "My Girl has Eye Trouble," "Just a Bird's Eye View," "Back Where the Daffodils Grow," "There's a Bouton on the Volga."
- 11.40 p.m.—GOD SAVE THE KING.

3LO, MELBOURNE

MID-DAY SESSION.

- Accompanist AGNES FORTUNE
Announcer MAURICE DUDLEY
- 12 noon.—Time Signal. British Official Wireless from Rugby. Butcher's and the Australian Press Association Cables. "Argus" and "Herald" news service.
- 12.30 p.m.—STUDIO ORCHESTRA: "Three Dances" (Flink).
- 12.40 p.m.—THE ROYAL SCOTS: "The End of the Road" (Lauder), "My Hero."
- 12.50 p.m.—Meteorological Information. Stock Exchange information. Shipping Intelligence. Weather forecast for Victoria, Tasmania, South Australia, and New South Wales. News, forecast. News reports.
- 1 p.m.—AUSTRALIAN LADIES' PIPE BAND, under the direction of Drum Major W. Darwin, F.R.G.S. Short Address by Drum Major W. Darwin, F.R.G.S. Pipe Solo: Piper, Gerrie Oliver. Eulogium: Drum Corporal Laura Bate, "Wee Scotch Night!" Pipe Solo: Pipe Major Dolly McPherson. Song: Drummer Molly Inness "Hurrah for Australia." Composed by Drum Major Wm. Darwin.
- Australian Ladies' Pipe Band—March.
- 1.20 p.m.—WALTER SMITH, cornet: "Flower Song" (Lauder).
- 1.27 p.m.—THE PREMIER FOUR: "Barcelona."
- "Where'd you get those Eyes?"
- 1.31 p.m.—STUDIO ORCHESTRA: Selection: "Flourish" (Stuart).
- 1.40 p.m.—THE ROYAL SCOTS: "It's a fine thing to Sing" (Lauder), "We Danced Till Dawn" (Sentry).
- 1.52 p.m.—STUDIO ORCHESTRA: "Norwegian Dance" (Grieg).
- 2 p.m.—Description of Laverton Hurdle, Williamstown Races, by "Musket," of the Sporting Globe.
- 2.35 p.m.—Description of Juvenile Handicap, Williamstown Races, by "Musket," of the Sporting Globe.

AFTERNOON SESSION.

- Accompanist AGNES FORTUNE
Announcer MAURICE DUDLEY
- 3 p.m.—STUDIO ORCHESTRA: Selection: "Merry England" (Binding).
- 3.10 p.m.—Description of FOUNDATION DAY CUP, Williamstown Races, by "Musket," of the Sporting Globe.
- 3.15 p.m.—Mrs. DOROTHY SILK, "Homestead."
- 3.20 p.m.—YASMA THIERNAN, Cello: "Kil Noelra" (Max Bruch).
- 3.37 p.m.—STUDIO ORCHESTRA: "Gilbert and Sullivan Selection."
- 3.50 p.m.—Description of STEEPLE, Williamstown Races, by "Musket," of the Sporting Globe.
- 3.55 p.m.—ESTELLE MARK TRIO: "Song. ESTELLE MARK: "O Primavera" (Cirioldelli).
- Viola, CECILIA KILDUFF: "Nocturne R Flat" (Chopin-Sarasate).
- Song, ESTELLE MARK: "I Love the Moon" (Ruben).
- Pianoforte, MARGOT SHERIDAN: "Rattle of Spring" (Sindire).
- 4.10 p.m.—STUDIO ORCHESTRA: "Frelude C Sharp Minor" (Bachmannoff).
- 4.25 p.m.—DOROTHY ROXBURGH, Viola: "Elegie, Op. 90" (Vieuxtemps).

3AR, MELBOURNE

MORNING SESSION.

- 11.30 a.m.—British Official Wireless Press received from Rugby Super Wireless Station, England; Express train information; "Argus" News Bulletin, exclusive to 3AR.
- 12 p.m.—Time Signal. G.P.O. 1st Weather report; Events of the day; Studio Barometer and Outdoor Thermometer Readings.
- 12.5 p.m.—Musical Selections from the Studio.
- 12.30 p.m.—Stock Exchange News; Market Reports.
- 12.40 p.m.—Musical Selections.
- 12.55 p.m.—Shipping Movements; Mail Notes.
- 1.0 p.m.—CLOSE DOWN.

AFTERNOON SESSION.

- WILLIAMSTOWN RACING CLUB
- 2.0 p.m.—Description of Laverton Hurdle, 2 miles.
- 2.30 p.m.—MR. BERT PETTIFER, Violinist, Duet for Piano and Violin, "Minuetto and Allegro," from Sonata Opus 17, No. 3 (Schubert) and the Piano, MADAME ETHEL BRADLEY.
- 2.35 p.m.—Description of Juvenile Handicap, 5/8 furlongs.
- 2.47 p.m.—THE MELBOURNE PIANO TRIO, "By the Shrine of the Sun" (Billott).
- 2.50 p.m.—MISS RITA GIBSON, Soprano, "Ship O' Brooma" (Francis), "The Little Old Garden" (Hewitt).
- 3.0 p.m.—MR. RONALD BRADLEY, Cellist, "The Waves" (Saint Saens), by request.
- 3.4 p.m.—MADAME ETHEL BRADLEY, Pianist, "Refrain de Berceuse" (Palmgreen).
- 3.5 p.m.—Description of Foundation Day Cup, 1 mile 3 furlongs.
- 3.7 p.m.—THE MELBOURNE PIANO TRIO, "Romance Farewell to Juliet" (Baron), "A Musical Jig Saw" (Kertelby).
- 3.27 p.m.—MISS RITA GIBSON, Soprano, "There's a Whimper in the Air" (Wheat), "Philosophy" (Emanuel).
- 3.50 p.m.—THE MELBOURNE PIANO TRIO, "Selections."
- 4.15 p.m.—Description of Steeplechase, 2 miles.
- 4.40 p.m.—Time Signal. Chime, G.P.O. 2nd Weather Report. Selections by the MELBOURNE PIANO TRIO.
- 4.45 p.m.—Description A.N.A. Handicap, 5 furlongs. Selections by the MELBOURNE PIANO TRIO.

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4.45 p.m.—Description Newport Wash., 1 m.e.
 4.55 p.m.—Evening Amusement Guide.
 5.0 p.m.—Time Signal Chino, G.P.O.; Studio
 Barometer Readings. CLOSE DOWN.

EARLY EVENING SESSION.

6.45 p.m.—Children's Corner, UNCLE RAD.
EVENING SESSION.

7.45 p.m.—British Official Wireless Press.
 Studio Barometer Readings. Special
 Programs rendered by MR. GEORGE ENGLISH
 and his OPERATIC COMPANY.

8.0 p.m.—MISS AMY McVICARS, Soprano,
 "Sonnet's Awakening" (Fletcher).
 "Jewel Song" from "Faust" (Gounod).

8.10 p.m.—MR. ERIC BIGGS, Baritone,
 "Prologue from Faust" (Leoncavallo).

8.17 p.m.—MISS NELLIE GIBBS, Soprano,
 "Ave" Macdonald (Rowck).
 "Ritornella's Prayer" (Wagner).

8.27 p.m.—MR. GEORGE ENGLISH, Tenor,
 "Oh Sing Three Songs of Arab" (Clay).
 "Oh With the Molley" from Pagliacci
 (Leoncavallo).

8.37 p.m.—MR. A. J. SULLIVAN, What
 Distinguished Visitors have said about Aus-
 tralia and Australians.

8.52 p.m.—MISS JEAN GALBRAITH, Soprano
 "Vale" (Russell).
 "Romance a Scene" from "Cavalleria Rus-
 teliana" (Mascagni).

9.0 p.m.—MR. E. G. SAMSON, Baritone,
 "Close Frop" (Clay).
 "Song of the Golden calf" from "Faust"
 (Gounod).

9.10 p.m.—MISS KUNICE GREGORY, Solo
 Violinist,
 "Slavonic Dance" (Dvorak), Gounod, Kreisler

9.21 p.m.—MR. LUKK BRENNAN, Baritone,
 "Because" (Hindemith).
 "Trees" (Reubach).

9.21 p.m.—MISS AMY McVICARS, Soprano,
 "April Morn" (Bathen).
 "Selected".

9.30 p.m.—MR. GEORGE ENGLISH, Tenor,
 "Come into the Garden, Maud" (Balfet).
 "Flower Song" (Carson) (Clay).

9.38 p.m.—MISS NELLIE GIBBS, Soprano,
 "Ritorno Victor" from "Aida" (Verdi).

9.45 p.m.—VOCAL DUEP, MISS JEAN GAL-
 BRAITH and MR. GEORGE ENGLISH,
 "A Night in Venice".

9.53 p.m.—MISS KUNICE GREGORY, Solo
 Violinist,
 "Waltz in A" (Brahms).
 "Memento Musical" (Schubert (Kreisler)).

10.0 p.m.—Time Signal Chino, G.P.O.; Studio
 Barometer Readings. "Ave" News Bulletin.
 LEGGETT'S BALLROOM ORCHESTRA

11.0 p.m.—Time Signal Chino, G.P.O. CLOSE
 DOWN.

4QG, BRISBANE

MIDDAY SESSION.

12.55 p.m.—Time In.

1.00 p.m.—Time Signal.

1.10 p.m.—Market Reports: Weather infor-
 mation, supplied by the Commonwealth Weather
 Bureau; News Services supplied by "The
 Daily Mail" and "The Daily Standard".

1.20 p.m.—FROM HOTEL CARLTON: Lunch
 Music from the Lounge, Hotel Carlton,
 played by Hotel Carlton Symphony
 Orchestra.

1.25 p.m.—From the Observatory: Standard
 Time Signal.

2.0 p.m.—Close Down.

AFTERNOON SESSION.

2.30 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.

6.0 p.m.—News Services supplied by the "Daily
 Standard".

6.30 p.m.—The Children's Scanlon, Stories by
 "The Bandiana".

7.0 p.m.—Market Reports: Lecturette, "Bill
 Jones' Dig Farm," Mr. R. J. Sheahan (In-
 structor in Pig Raising).

7.30 p.m.—Stock Reports: Weather News;
 Announcements.

7.45 p.m.—Standard Time Signal.

NIGHT SESSION.

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

STUDIO CONCERT.

8.0 p.m.—Overture, "Golden Spectre" (Schle-
 pperell), the Studio Instrumental Quartette;
 contralto solo, "Angus Macdonald" (Mac-
 donald), Miss Maheara Burns; Hawaiian In-
 strumentals, the Kalua Trio; tenor solo,
 "Le Iuhua E Kaula" (Vardi), Mr. G.
 Williamson; structure, "Queen of the Nile"
 "Alitoto", the Studio Instrumental Quar-
 tette; two minutes with Henry Lawson; Mr.
 Claude Walker; Hawaiian Instrumentals;
 the Bahai Trio; contralto solo, "Ten Thou-
 sand Years from Now", Miss Blanche
 Burns; orchestral, "A Deep Sea Romance"
 (Laker), the Studio Instrumental Quartette.

9.0 p.m.—Metropolitan Weather Forecast;
 tenor solo, "What Knows" (E. H. Ball);
 Mr. G. Williamson; Hawaiian Instrumentals,
 the Kalua Trio; orchestral "Star-
 lined" (Laker); the Studio Instrumental
 Quartette; Popular Numbers, (a) "77 Love
 a Little Cottage" (O'Hara), (b) "Out of
 the Park to You" (Lynch), the Studio In-
 strumental Quartette.

9.30 p.m.—From the Crystal Palace, Devon
 Maid.

10.0 p.m.—From the Studio: "The Daily Mail"
 News; Weather News; Close Down.

SCL, ADELAIDE

MORNING SESSION.

11.30 a.m.—G.P.O. Chimes.

11.35 a.m.—Stock Don Art number.

11.40 a.m.—"Advertiser" news service.

11.45 a.m.—"Advertiser" news service.

12 noon.—G.P.O. Chimes.

12.1 p.m.—"Advertiser" news service.

12.15 p.m.—Stock Don Art number.

12.20 p.m.—Studio Orchestral Quartette.

"Ballad in A Major"; waltz, "There once
 was a girl like you"; fox trot, "Where'd
 you get those eyes?" waltz, "In the
 land"; waltz solo, "Brevity Transverse";
 variation "Little Dutch girl"; "Valse de
 Amante"; mazurka "La Catinella"; Balse,
 "Musical switch".

1.50 p.m.—Ward & Co.'s Stock Exchange re-
 ports, official weather synopsis and station
 announcements.

2 p.m.—G.P.D. Chimes.

AFTERNOON SESSION.

3.0 p.m.—G.P.O. Chimes.

3.1 p.m.—Relay from Maple Leaf Cafe—
 Orchestral numbers.

3.40 p.m.—From Studio—Vocalion and Stock
 Don Art number.

4.0 p.m.—G.P.O. Chimes.

4.1 p.m.—Relay from Apollo—Orchestral
 numbers.

4.55 p.m.—Stock Exchange report. Station
 announcements.

6 p.m.—G.P.O. Chimes and time down.

EVENING SESSION.

6.30 p.m.—G.P.O. Chimes.

6.55 p.m.—The Children's Hour—Nodding
 stories, nursery rhymes.

7.30 p.m.—Market reports, S. C. Ward & Co.,
 Dalrymple & Co., A. W. Sandford & Co., A.
 H. Hall & Co., A. Farnham's Union.

7.40 p.m.—Meteorological talk by Mr. W.
 Sinden, under the supervision of Mr. Fred-
 erickson, automotive engineer of the Vacuum
 Oil Co.

8.0 p.m.—G.P.O. Chimes.

8.1 p.m.—Organ solo from Parkside Baptist
 Church.

8.10 p.m.—Song, Mr. Norman Shepherd.

8.15 p.m.—Recitation, Mr. Cecil George.

8.20 p.m.—Song, Miss Thelma Bala.

8.25 p.m.—Organ solo from Parkside Baptist
 Church.

8.30 p.m.—Talk on "China" by Mr. Tullock,
 of China Inland Mission.

8.35 p.m.—Song, Mr. Eric Stephenson.

8.40 p.m.—Organ solo from Parkside Baptist
 Church by Mr. Herbert Edwards, A.M.U.A.

8.45 p.m.—G.P.O. Chimes.

8.5 p.m.—Weather report.

9.1 p.m.—Song, Mr. Norman Shepherd.

9.2 p.m.—Song, Miss Thelma Bala.

9.3 p.m.—Musical number, Mr. Cecil George.

9.35 p.m.—Organ solo relayed from Parkside
 Baptist Church.

9.40 p.m.—Song, Mr. Norman Shepherd.

9.45 p.m.—Pianoforte solo, Miss Lucy Foglia.

9.57 p.m.—Song, Mr. Eric Stephenson.

10.00 p.m.—Mr. Noel Hubble, musical culture
 talk.

10.10 p.m.—Song, Miss Thelma Bala.

10.15 p.m.—Organ solo relayed from Parkside
 Baptist Church.

10.20 p.m.—Song, Mr. Norman Shepherd.

10.30 p.m.—"Advertiser" general news service.

6WF, PERTH

12.30 p.m.—Time In.

12.35 p.m.—First local news bulletin.
 Market reports.
 Cables.

1 p.m.—Time Signal from the Perth Observa-
 tory.

1.1 p.m.—Weather notes supplied by the
 Meteorological Bureau of Western Australia.

1.15 p.m.—Studio Quartette.

1.25 p.m.—Relay from Asak Racecourse. 5-m.
 2000 Meeting W.A.C.C.

1.30 p.m.—Time In.

1.35 p.m.—Musical programme

4 p.m.—Studio Trio.

4.30 p.m.—Close down.

7 p.m.—Time In.

7.15 p.m.—Bullfinch Stories by Uncle Henry
 and Duffie.

7.35 p.m.—Stock and Share Intelligence.
 Market Reports.

Cables, News by courtesy of "The West
 Australian" Newspaper Coy.

8 p.m.—Time signal from the Perth Observa-
 tory.

8.1 p.m.—Weather notes supplied by the
 Meteorological Bureau of Western Australia.

8.2 p.m.—The Keeping talk by Mr. W. Wal-
 shaw; under auspices of the Bee Keepers'
 Association.

8.30 p.m.—Musical programme.

Mr. G. C. Hayward, baritone:
 "Mountain of Monks" (Collinson).
 "Wagon the Ring West Foot to War"
 (Gieseler).

"The Vassal" (Williams).
 "Sun Fever" (Ireland).

Miss Gilbee Buck, soprano.
 Mr. Charles Court, cornet solo:
 "River Threads Among the Gold" (H.
 Wood).

"The Emperor" (Jukka (Larzel)).
 "Mendelssohn's Song Without Words"
 (Mendelssohn).

"On the Banks of Allan Waters" (Har-
 rison).

Mr. Frank Boyd, entertainer:
 "She's My Daisy" (Lauder).
 "I'm Looking for a Lass to Love Me"
 (Lauder).

"There's a Wee Scotch Lass in Inventory"
 (Lauder).

"I Love to be a Sailor" (Lauder).

Miss Evelyn Wills, A.R.C.M., pianist.

8.50 p.m.—Health talk by Mr. H. S. Hutton,
 of the Hutton School of Physical Culture.

10 p.m.—Second news bulletin supplied
 by courtesy of "The Daily News" Newspaper
 Coy.

10.30 p.m.—Close down.

7ZL, HOBART

MORNING SESSION.

11 a.m.—G.P.O. Clock Chimes. "THE
 BURN" news. Shipping Commercial In-
 telligence. Weather. Information. Ships
 within wireless range. Mail advice.

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12 noon.—G.P.O. Clock Chimes. Close down.

AFTERNOON SESSION.

3 p.m.—G.P.O. Clock Chimes. Musical items from the studio.
 3.30 p.m.—Hobart stock exchange quotations.
 3.55 p.m.—Weather information.
 4 p.m.—G.P.O. Clock Chimes. Close down.

EVENING SESSION.

7 p.m.—CHILDREN'S CORNER. "Big Brother" chats to his Pal.
 NIGHT SESSION.

8 p.m.—G.P.O. Clock Chimes. The "MERCURY" special Tasmanian news service. Railway auction produce sales. Weather information.
 8.5 p.m.—Hobart stock exchange quotations.
 9.30 p.m.—Concert from the studio.—Miss KATHLEEN PEARCE, contralto. Miss RUBY PIESSE, pianist; Mr. THOMAS SPENCER, tenor. Mr. ROY SUTCLIFFE, Cornet Soloist; Rev. ARTHUR C. NELSON, elocutionist.
 9.15 p.m.—Tasmanian District Weather reports.
 9.50 p.m.—The "MERCURY" special interstate news service. Weather synopsis. Station announcements. Ships within wireless range. National Anthem.

Tues., February 1
 2FC, SYDNEY

MORNING SESSION.

7 a.m.—"Big Ben" and announcements.
 7.5 a.m.—Music from the Studio.
 7.19 a.m.—Official weather forecast, rainfall, temperatures, astronomical memoranda, shipping intelligence, commercial news, mail services.
 7.25 a.m.—Investment market, mining share market, metal quotations.
 7.55 a.m.—Wool and produce markets. Interstate markets, produce markets.
 7.45 a.m.—"Sydney Morning Herald" news service.
 8 a.m.—"Big Ben." Music from the Studio.
 8.15 a.m.—Close down.

MORNING SESSION.

9.15 a.m.—The chimes of 2FC. Music from the Studio.
 9.45 a.m.—Last minute sporting information by the 2FC Racing Commissioner.
 10 a.m.—"Big Ben" and announcements.
 10.5 a.m.—Late "Sydney Morning Herald" news service.
 10.15 a.m.—Music from the Studio.
 10.45 a.m.—A morning reading.
 11 a.m.—"Big Ben." Australian Press Association and Benter's Cable Services.
 11.15 a.m.—Music from the Studio.
 11.15 a.m.—A talk on home cooking and recipes by Miss Ruth Furst.
 11.30 a.m.—Close down.

MIDDAY SESSION.

12 noon.—"Big Ben" and announcements.
 12.5 p.m.—Stock Exchange, first call.
 12.10 p.m.—Music from the Studio.
 12.45 p.m.—FROM FARMER'S OAK HALL.—The Oak Hall Trio, instrumental items.
 12.50 p.m.—Rugby wireless news.
 12.55 p.m.—Miss Olga Brigg, soprano.
 1 p.m.—"Big Ben." Weather intelligence.
 1.3 p.m.—"Evening News" midday news service. Producers' Distributing Society's report.
 1.29 p.m.—FROM FARMER'S OAK HALL.—Instrumental item, by the Oak Hall Trio.
 1.30 p.m.—Stock Exchange, second call.
 1.33 p.m.—Music from the Studio.
 1.45 p.m.—Miss Olga Brigg, soprano.
 1.50 p.m.—FROM FARMER'S OAK HALL.—Instrumental item by the Oak Hall Trio.
 2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

2.30 p.m.—The chimes of 2FC and announcements.
 2.32 p.m.—A recital on the "Belknap" Player Piano.
 3 p.m.—"Big Ben." From the Wentworth Cafe, Sydney.—The New Wentworth Symphonic Dance Orchestra, under the baton of Mr. Sydney Simpson.
 3.30 p.m.—FROM FARMER'S TEA ROOMS.—The Oak Hall Trio. (Leader, Mr. Horace Keate).
 3.48 p.m.—Miss Persla Rotter, soprano. "Farewell to Summer" (Johnson).
 3.45 p.m.—Music from the Studio.
 4 p.m.—FROM FARMER'S TEA ROOMS.—Miss Jennette Rooney, contralto.
 4.5 p.m.—The Oak Hall Trio.
 4.15 p.m.—Studio music.
 4.20 p.m.—FROM FARMER'S TEA ROOMS.—Miss Persla Rotter, soprano. "Cara Mia" (Russell).
 4.25 p.m.—The Oak Hall Trio.
 4.35 p.m.—Studio music.
 4.40 p.m.—FROM FARMER'S TEA ROOMS.—Miss Jennette Rooney, contralto.
 4.45 p.m.—Stock Exchange information, third call.
 4.46 p.m.—Close down.

EARLY EVENING SESSION.

5.45 p.m.—The chimes of 2FC.
 5.49 p.m.—The "Hello Man" talks to the children.
 6.39 p.m.—A story for the older ones.
 6.45 p.m.—Dinner music.
 7.19 p.m.—"Evening News" late news service. Weather information.
 7.20 p.m.—Daily's market reports (wool, wheat, stock), fruit and vegetable markets.
 7.40 p.m.—A talk by a member of the Wireless Institute of New South Wales.

NIGHT SESSION.

7.55 p.m.—Announcements.
 8 p.m.—"Big Ben." From the Royal Naval House, Sydney, the N.S.W. State Military Band.
 8.10 p.m.—FROM THE STUDIO.—Mr. Harold Tollensche, baritone.
 8.15 p.m.—From the Royal Naval House.—The N.S.W. State Military Band.
 8.25 p.m.—FROM THE STUDIO.—Miss Freda Gilder, contralto. "Over the Steppes" (Gretchaninoff).
 8.32 p.m.—From the Royal Naval House.—The N.S.W. State Military Band.
 8.42 p.m.—FROM THE STUDIO.—Mr. Harold Tollensche, baritone.
 8.46 p.m.—From the Royal Naval House.—The N.S.W. State Military Band.
 9 p.m.—FROM THE STUDIO.—Miss Freda Gilder, contralto. "Quiet" (Sanderson).
 9.4 p.m.—A talk by Miss Goodie Rowe, dealing with celebrities behind the scenes.
 9.18 p.m.—Mr. Walter Whyte, tenor.
 9.22 p.m.—From the Royal Naval House.—The N.S.W. State Military Band.
 9.34 p.m.—FROM THE STUDIO.—Mr. Harold Tollensche, baritone.
 9.42 p.m.—Miss Belle Pollard, soprano.
 9.46 p.m.—Mr. Mayo Hunter, steel guitar. Hema.
 9.53 p.m.—Miss Freda Gilder, contralto. "From the Land of the Sky Blue Water" (Cushman).
 9.58 p.m.—Mr. Walter Whyte, tenor, and Miss Belle Pollard, soprano.—Just.
 10 p.m.—Mr. Mayo Hunter, steel guitar items.
 10.16 p.m.—Miss Freda Gilder, contralto. "Could I but Express in Song" (Malashkin).
 10.15 p.m.—Mr. Walter Whyte, tenor.
 10.20 p.m.—From the Wentworth Cafe, Sydney.—Items by the New Wentworth Symphonic Dance Orchestra, conducted by Mr. Sydney Simpson.
 10.25 p.m.—Miss Belle Pollard, soprano, from the Studio.
 10.32 p.m.—Mr. Mayo Hunter, steel guitar items.

10.42 p.m.—From the Wentworth Cafe.—The New Wentworth Symphonic Dance Orchestra.
 10.50 p.m.—FROM THE STUDIO.—Mr. Walter Whyte, tenor, and Miss Belle Pollard, soprano.
 11 p.m.—"Big Ben." From the Wentworth Cafe. The Wentworth Symphonic Dance Orchestra.
 11.10 p.m.—Mr. Walter Whyte, tenor. From the Studio.
 11.15 p.m.—From the Wentworth Cafe.—The New Wentworth Symphonic Dance Orchestra will play until midnight. Conductor, Mr. Sydney Simpson.
 12 midnight.—"Big Ben." National Anthem. Close down.

2BL, SYDNEY

EARLY MORNING SESSION.

7.15 a.m.—G.P.O. clock and chimes. 7.18 Musical programme from Studio.
 7.19 a.m.—Physical training and health exercises.
 7.25 a.m.—Hints on health.
 7.30 a.m.—Physical training and health exercises.
 7.45 a.m.—G.P.O. clock and chimes. 7.48 weather report and forecast.
 7.48 a.m.—Sporting information.
 7.50 a.m.—Broadcasters' 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 weather report and forecast.
 10.3 a.m.—Musical programme from the Studio.
 10.29 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 News Service from "Daily Telegraph."
 11.15 a.m.—Bath market report. 11.17 Fish market report.
 11.19 a.m.—Vegetable market report. 11.21 Fish market report.
 11.23 a.m.—Report on London dairy, farm, egg, and poultry market.
 11.29 a.m.—London metal quotations. 11.31 Ships in call by wireless.
 11.33 a.m.—Information re interstate and overseas mails.
 11.35 a.m.—Shipping information—arrivals and departures.
 11.37 a.m.—Weather report.
 11.40 a.m.—Women's Session, conducted by Mrs. Jordan. Social Notes.
 11.50 a.m.—Mrs. Jordan replies to correspondents.
 12 noon.—G.P.O. clock and chimes.
 12.1 p.m.—Talk on "Follet Elista," by Mrs. Jordan.
 12.25 p.m.—News from the "Sun." 12.30 G.P.O. clock and chimes.
 12.31 p.m.—Sydney Stock Exchange Calls.
 12.33 p.m.—News from the "Sun."
 12.46 p.m.—Hiller's Instrumental Quartet, direction, Geryl Caullin.
 1.30 p.m.—G.P.O. clock and chimes. 1.31 weather report.
 1.33 p.m.—Sydney Stock Exchange Calls.
 1.36 p.m.—News from the "Sun."
 1.45 p.m.—Hiller's Instrumental Quartet, 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 weather report.
 2.5 p.m.—Musical programme from the Studio by the Business Women's Prohibition Society under the direction of Miss Andrews.
 3.30 p.m.—G.P.O. clock and chimes. 3.31 News from the "Sun."

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RADIO HOUSE OF THE NORTH.

8.40 p.m.—Musical programme from the Studio.
 9 p.m.—G.P.O. clock and chimes. 4.1 Civil Service Stores Trio.
 9.15 p.m.—Serial story. 4.30 Musical programme from the Studio.
 9.45 p.m.—Producers' Distributing Society's Fruit and Vegetable Market Report.
 9.55 p.m.—Shipping information when available.
 9.55 p.m.—Day's racing resume on race days.
 9.55 News from the "Sun."
 9.55 p.m.—Resume of night's programme.
 9 p.m.—G.P.O. clock and chimes. Close down.

EARLY EVENING SESSION.

8.45 p.m.—G.P.O. clock and chimes. 8.46 Uncle George and the Kiddies.
 8.50 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.
 Stock Exchange reports.
 Producers' Distributing Society's Fruit and Vegetable Market Report.
 Dairy Producers Report ("Sun"). Grain and Fodder Report ("Sun").
 7.15 p.m.—Country News from the "Sun."
 7.30 p.m.—A talk on the "Motor Car," by Mr. Martin.
 7.45 p.m.—A talk on "The Tour of the Rowan," by Mr. John Holmes.

EVENING SESSION.

9 p.m.—G.P.O. clock and chimes.
 Broadcaster's Topical Chorus.
 9.3 p.m.—Mr. Leslie Herford, baritone.
 9.19 p.m.—Broadcaster's Miniature Orchestra, under the direction of Mr. J. Knight Barnett.
 9.26 p.m.—Miss Millie Hughes, soprano.
 9.37 p.m.—Miss Rosaline Duvall, harp solos.
 9.54 p.m.—Miss Heather Kinnaird, contralto.
 9.55 p.m.—Mr. Stan Hudson, English Light Comedian.
 9.45 p.m.—Mr. Norman Wright, tenor.
 9.55 p.m.—Resume of following day's programme.

Weather report and forecast, by courtesy of Mr. C. J. Marrs, Government Meteorologist.

9 p.m.—G.P.O. clock and chimes.
 9.1 p.m.—Broadcaster's Miniature Orchestra.
 9.11 p.m.—Mr. Leslie Herford.
 9.18 p.m.—Mr. J. M. Post, Obuse Solo.
 9.25 p.m.—Miss Millie Hughes.
 9.32 p.m.—Interval.
 9.37 p.m.—Broadcaster's Miniature Orchestra.
 9.47 p.m.—Mr. Stan Hudson.
 9.54 p.m.—Miss Rosaline Duvall.
 9.54 p.m.—Miss Heather Kinnaird.
 9.55 p.m.—Mr. Norman Wright.
 10.15 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" Newspapers will be broadcast.
 10 p.m.—G.P.O. clock and chimes. National Anthem.

3LO, MELBOURNE

MID-DAY SESSION.

Accompanist, AGNES FORTUNE.
 Announcer, MAURICE DUDLEY.
 "SCOTASIA."
 12 noon.—Time Signal. British Official Wireless News from Rugby. Routes and the Australian Press Association. "Argus" and "Herald" news services.
 12.30 p.m.—STUDIO ORCHESTRA.
 "Pierina's Chorus" (Tannhauser).
 "Evening Star."
 12.42 p.m.—DR. ARNOLDI BARTOLINI, Baritone.
 "Credo" from "Otello" (Verdi).
 "Tornento" (Tosti).

12.49 p.m.—Meteorological Information; Stock Exchange Information; Shipping Intelligence; Weather Forecast for Victoria, Tasmania, South Australia and New South Wales; Ocean Forecast; River reports.
 1.9 p.m.—STUDIO ORCHESTRA.
 "La Joly" (Cubalida).
 1.9 p.m.—AUSTRALIAN LADIES' PIPE BAND, under direction Drum-Major Wm. Darwin, P.R.O.S.
 Pipe Solo, Pipe Sergeant Eddie Buchanan, Ewshott, Deam Coog, Laura Bate Solo, "Where is She, Where is She?"
 Pipe Solo, Pipe Major Dolly McPherson, Stone, Piper Flora Ash, "Loch Lomond."
 Australian Ladies' Pipe Band.
 1.25 p.m.—DR. ARNOLDI BARTOLINI, Baritone.
 "A Bucchella" (Tosti).
 "Ballata" (Macagnoli).
 1.32 p.m.—GERTIE ARMSTRONG, The Girl From Glasgow.
 "Blue Belle of Scotland."
 "Robin Alair."
 "Banks of Allan Water."
 1.43 p.m.—THE ROYAL SCOTS.
 "The Box of the House" (Lauder).
 "Ninette, Ninna" (Silbermann).
 1.52 p.m.—STUDIO ORCHESTRA.
 "Ballad Music from William Tell" (Rossini).
 2.9 p.m.—Close Down.

AFTERNOON SESSION.

Speakers: "AU FAT" MATRON MORELAND, WILL PAGE and HIS POPULAR

PLAYERS.

THE PREMIER FOUR, Male Quartet.
 Accompanist, AGNES FORTUNE.
 Announcer, ALFRED ANDREW.
 3 p.m.—WILL PAGE and HIS POPULAR PLAYERS:
 "Ain't you Ashamed?"
 "Out of the Busk"
 "Blue Comes Feelings."
 "You Tell Me to Go."
 3.10 p.m.—"AU FAT" of Mamma Buckley and Nona Ltd, will also a Fashion Talk.
 3.25 p.m.—WILL PAGE and HIS POPULAR PLAYERS:
 "Binky Must Lay."
 "I'm on My Way to Dreamland."
 "Stomp Your Stuff."
 "Do you Believe Me?"
 3.35 p.m.—THE PREMIER FOUR, Male Quartet:
 "There Never was a Pal Like You"
 3.49 p.m.—WILL PAGE and HIS POPULAR PLAYERS:
 "Shin that Pass in the Night."
 "Kashmiri Song."
 "You gotta Know How."
 "I'm a longing for You."
 3.59 p.m.—THE PREMIER FOUR:
 "Wipers."
 3.59 p.m.—WILL PAGE and HIS POPULAR PLAYERS:
 "She Belongs to Me."
 "The Sweetest Waits of All."
 "I do."
 "Hold Me in Your Arms."
 4.3 p.m.—THE PREMIER FOUR:
 "Valentine."
 4.7 p.m.—WILL PAGE and HIS POPULAR PLAYERS:
 "Hot Coffee."
 "Tain' Time Ray."
 "Lay on My Hand Beneath a Rose."
 "Oriental Moon."
 4.17 p.m.—THE PREMIER FOUR:
 "That's Why I Love You."
 4.35 p.m.—WILL PAGE and HIS POPULAR PLAYERS:
 "Wanna Go Back Again Blues."
 "Why Don't You Say So?"
 "Homey Bunch."
 "Barbecue."
 4.31 p.m.—MATRON MORELAND will speak on "Infant Welfare."
 4.45 p.m.—"Herald" news service. Stock Exchange information.
 5 p.m.—Close down.

EVENING SESSION.

8.40 p.m.—CHILDREN'S HOUR. Answers to letters and Birthday Greetings.

8.55 p.m.—STUDIO ORCHESTRA:
 "Children's Overtures," Part 1 (Quilter).
 9.11 p.m.—"MARY GUMLEAF"—Poems:
 "The Bell."
 "Sometimes."
 Shipy for the Littlest One, "The Little Voice."
 9.18 p.m.—ZOE AND OWEN HARRISON will entertain the children, with piano and violin solos.
 9.22 p.m.—STUDIO ORCHESTRA.
 "Children's Overtures," Part 2 (Quilter).
 9.27 p.m.—"MARY GUMLEAF," Story for the Boys, "The Circus," Story for the Girls, "The Princess and the Limb."
 9.35 p.m.—"Argus" and "Herald" news services; Weather synopsis; Shipping movements.
 9.49 p.m.—Stock Exchange Information.
 9.52 p.m.—York market reports by J. K. Dorsett, Ltd.
 9.55 p.m.—River Reports.
 9.58 p.m.—Market reports by the Victorian Producers' Co-operative Co., Ltd.; Dairy Producers; Potatoes and Onions; Haymarket (heavy sales); Poultry; Grain; Straw; Hay; Jute.
 7.0 p.m.—Market prices of Oranges and Lemons, by the Victorian Central Citrus Association.

NIGHT SESSION.

Accompanist, AGNES FORTUNE.
 Announcer, ALFRED ANDREW.
 7.15 p.m.—MADAME EDWARD, French Talk.
 "Dona donna diavola."
 7.30 p.m.—Under the auspices of the University Extension Board, HON. SAMUEL BAIGER, "Fiscal reform and the late Mott Osborne."
 7.45 p.m.—Mr. F. A. HUGHES, Supervisor of School Gardening for the State School of Victoria. "What the State Schools' Nursery is doing for Victoria."
 "CAMEOS"—OPERATIC.
 8.9 p.m.—BRUNSWICK CITY BAND, Conductor, Mr. Hugh Niven.
 Selection, "The Trocadero."
 8.14 p.m.—DR. ARNOLDI BARTOLINI, Baritone.
 "Aria from Macbeth" (Verdi).
 "Ave Maria" (Liszt).
 8.17 p.m.—REGINALD HIRSDLEY, Violin.
 "Ave Maria" (Schubert-Winkel).
 8.26 p.m.—DAWN HARDING, Soprano.
 "Il Signor to per assai felice" Lucrezia Borgia.
 "Havanna" (Cezanne) (Bizet).
 8.35 p.m.—THE ROYAL SCOTS:
 "Australian Girls are Good Enough for Me" (Lauder).
 "Sue's Melon" (Lauder).
 8.45 p.m.—SUNSHINE HARVESTER WORKS FIVE BAND:
 March, "There was a Lad was Born in Kile."
 "A Man's Man for a That."
 Strathape, "The Devil in the Kitchen."
 Reel, "The High Road to Linton."

VARIETY.

8.50 p.m.—THE MUSICAL GARDENERS, instrumental quartet, party, Banjo and Mandolin Concerto, "Horn's March in G." French Horn Solo, Mr. Geo. Gardiner, "Viola," Steel Guitar, French Horn and Mandolin, "Somebody," Xylophone Duet, Overture, "Post and Passport," Organ Chimes Selection, "Holy City."

MILITARY.

9.7 p.m.—BRUNSWICK CITY BAND:
 March, "The King's Guard" (Keith).
 9.12 p.m.—HARMONISTS MALE QUARTET:
 "Generates in Arms."
 "Soldier's Excursion."
 9.26 p.m.—BRUNSWICK CITY BAND:
 Cornet Solo, "The Trumpeter" (Dix).
 PIANOFORTE.
 9.38 p.m.—DON ALFONSO ZELAYA, pianoforte Recital.
 Paraphrase, "La Boheme" (Puccini).
 "Dagliere" (Leoncavallo).
 "Sertal from Jataca" (Donizetti).
 "Spanish Rhapsody" (Cervantes).

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INTERLUDE.

- 9.45 p.m.—**THE ESTELLE TRIO**
Song, Estelle Mark, Selected.
Dance, Margot Sheridan, "Spring time"
(Margie Sheridan).
Song, Estelle Mark, "Come Back" (Roger
Chapin).
Vocal, Greta Kiddell, "Mignon" (Mooritz).
"The Bee" (Schubert).
10 p.m.—British official wireless news from
Hull. Sporting notes to "Olympus."
10.10 p.m.—**SOMETHING OLD**
10.10 p.m.—**BRUNSWICK CITY BAND**
Waltz, "Queen of Emeralds" (Greenwood).
10.12 p.m.—**HARMONISTS' MALE QUARTET**.
"Drink to me only with Thine Kopp"
"Three Through A Musical Tin Can"
10.22 p.m.—**THE MELODY MASTERS**:
"Villa Rose"
"I'd Climb the Highest Mountain"
10.22 p.m.—**THE ROYAL SCOTTS**:
"Musetown" (Lancaster).
"Mr. Little White Horse" (Whiting).
10.42 p.m.—**THE MELODY MASTERS**:
"Asterisk"
"Don't Wake Me Up."
10.52 p.m.—**AFRICA** news service. Announcements.
Weather forecast.
11 p.m.—**OUR GREAT THOUGHT**.
The most majestic aim of wisdom is con-
tained in a few lines (Montaigne).
11.1 p.m.—**THE MELODY MASTERS**:
"Picador"
"See Tomorrow Dawn"
"Sweet Child"
"Hush-ah-ah"
"Topsy Turvy"
11.40 p.m.—**GOD SAVE THE KING**.

4QG, BRISBANE

MIDDAY SESSION.

- 11.45 p.m.—Time In.
12.25 p.m.—Time Signal.
1.0 p.m.—Market Reports: Weather Informa-
tion supplied by the Commonwealth Weather
Bureau; News Service supplied by The
Daily Mail; and "The Day"
1.20 p.m.—From Hotel Carlton, Lunch Menu
from the Lounge, Hotel Carlton, played 30
Hotel Carlton Speeches, Irish song.
1.35 p.m.—From the Observatory; Standard
Time Signal.
2.0 p.m.—Close Down.
AFTERNOON SESSION.
2.30 p.m.—A programme of Music from the
Studio.
4.15 p.m.—News Service supplied by "The
Telegraph."
4.30 p.m.—Close Down.

EARLY EVENING SESSION.

- 6.0 p.m.—"Daily Standard" News, Announce-
ments.
6.30 p.m.—The Children's Section—Stories by
Uncle Ben and Uncle Jim.
7.0 p.m.—Market Reports; Lectures, "Hous-
ing Poultry in the Suburbs," Mr. P. Run-
hall (Poultry Institute).
7.30 p.m.—Stock Reports; Weather News;
Announcements.
7.45 p.m.—Standard Time Signal.

NIGHT SESSION.

- 7.45 p.m.—Lecture Session, "The House Beau-
tiful," by Mr. S. J. Ellison.
PIANO-FORTE RECITAL. The first portion
of tonight's programme will comprise a
musical piano-forte recital by Mrs. Erich John.
8.0 p.m.—Dance solos—(a) "Valse in D-Final
Major" Opus 89, No. 1 (Chopin); (b)
"Military Polonaise" (Opus 40, No. 1
(Chopin); Mr. Erich John; soprano solo,
"Blackbird Song" (Cyril Scott); Miss Phyllis
Vermer; piano solos—(a) "Novellette in E-
Major" Opus 21, No. 1 (Schumann); (b)
"Warium" ("Wie—Opus 12, No. 4 (Schu-
mann); (c) "Fruhling Nach" (Herrn
Schubert—Schumann—List); Mr. Erich John;
soprano solo, "Pied-a-ter" (Eben); Miss
Phyllis Vermer; piano solo, "Etude Valse"
Opus 32, No. 6 (Saint-Saens); Mr. Erich
John.

- 8.0 p.m.—**STUDIO CONCERT**—Metropolitan
Weather Forecast; contralto solo—(a)
"They Say" (Warwick Evans); (b) "Golden
Moon" (Rolf); Miss Winifred Anderson;
organ solo, selected, Mr. Arthur Sharman;
tenor solo—(a) "Land Where the Shamrock
Grows" (a) "I Love the Best of
Mr. Gerald Cashman; soprano solo, selected,
Mr. Arthur Sharman; bass solo—(a)
"Youth" (Albion); (b) "Parted" (Tosti);
Mr. J. P. Corwell.
10.0 p.m.—The "Red Mail" News; Weather
News. Close Down.

5CL, ADELAIDE

MORNING SESSION.

- 11.30 a.m.—G.P.O. Chimes.
11.41 a.m.—Stock Bus Art number.
11.40 a.m.—"Advertiser" news service.
11.53 a.m.—Vocalist number.
12 noon.—G.P.O. Chimes.
12.1 p.m.—"Advertiser" news service.
12.18 p.m.—Stock Bus Art number.
12.30 p.m.—Studio Orchestra; Selection, "The
Ball"; fox trot, "In Araby"; waltz, "What
Hill I do in you?"; minuet, "La Route";
waltz solo, "A Sunday's selection, "Sally";
Oriental, "Monday Morning"; solo, "His-
sawah"; finale, "March Oriental".
1.05 p.m.—S. C. Ward & Co.'s Stock Exchange
report, official weather synopses and station
announcements.
2.0 p.m.—G.P.O. Chimes and Close down.

AFTERNOON SESSION.

- 2.3 p.m.—G.P.O. Chimes.
3.1 p.m.—Relay from Maple Leaf Cafe—
Orchestral numbers.
3.45 p.m.—From Studio—Cookery talk by Mrs.
Corhill.
4.0 p.m.—G.P.O. Chimes.
4.1 p.m.—Relay from Arcadia Cafe—Orches-
tral numbers.
4.55 p.m.—Stock Exchange reports, general
information and station announcements.
5.0 p.m.—G.P.O. Chimes and close down.

EVENING SESSION.

- 6.30 p.m.—G.P.O. Chimes.
6.41 p.m.—Stock Bus Art.
6.46 p.m.—Children's hour, bedtime stories
and nursery rhymes.
7.00 p.m.—Market reports by S. C. Ward &
Co., A. W. Sandford & Co., Dalgety & Co.,
A. E. Hill & Co., S.A. Farmers' Co-operative
Union.
7.40 p.m.—Milling talk by Mr. Jackett.
7.60 p.m.—Talk by S.A. Christian Union.
8.0 p.m.—G.P.O. Chimes.
8.1 p.m.—Musical novelty—"The paragon of
flowers." Dedicated by permission to His
Highness the Princess Marie Louise Com-
posed by Amy Wood, words—Findeu. Accom-
panied by C.A. Chester.
9.15 p.m.—Lecture—"Wheat report and
Dalgety's wheat report."
9.18 p.m.—Studio concert continued.
10.0 p.m.—G.P.O. Chimes.
10.3 p.m.—"Advertiser" general news service.
11.15 p.m.—Studio concert continued.
11.38 p.m.—Station announcements.
11.6 p.m.—G.P.O. Chimes, National Anthem
and close down.

6WF, PERTH

- 12.40 p.m.—Time In.
1.15 p.m.—Perth local news bulletin.
Market reports.
1 p.m.—Time signal from the Perth Observa-
tory.
1.1 p.m.—Weather notes supplied by the
Meteorological Bureau of Western Austral-
ia.
1.2 p.m.—Studio Trio.
1.30 p.m.—Close down.
3.0 p.m.—Time In.
3.30 p.m.—Musical programme, including
orchestral selections by Miss Evelyn White,
A.R.C.M.

- 4 p.m.—Studio Trio.
4.30 p.m.—Close down.
7 p.m.—Time In.
7.5 p.m.—Stories for Tiny Tots, by Janice
Kate.
7.55 p.m.—Stock and Share intelligence.
Market reports.
8.00 p.m.—News by courtesy of "The West
Australian" Newspaper Co.
8.30 p.m.—Time signal from the Perth Observa-
tory.
8.4 p.m.—Weather notes supplied by the
Meteorological Bureau of Western Austral-
ia.
8.2 p.m.—Band Night.
Concert by the Perth City Band.
Conductor, Mr. W. A. Haywood.
10 p.m.—Second news bulletin supplied by
courtesy of "The Daily News" Newspaper
Co.
10.30 p.m.—Close down.

7ZL, HOBART

MORNING SESSION.

- 11 a.m.—G.P.O. Clock Chimes; The "MER-
CURY" special Tasmanian news service.
11.45 a.m.—Weather information. Short
with "wireless news." Mail news.
11.50 a.m.—Hour Express information.
12 noon.—G.P.O. Clock Chimes. Close down.

AFTERNOON SESSION.

- 2 p.m.—G.P.O. Clock Chimes. Musical items
from the studio.
3.30 p.m.—Hobart stock exchange quotations.
3.55 p.m.—Weather information.
4 p.m.—G.P.O. Clock Chimes. Close down.

EVENING SESSION.

- 7 p.m.—**CHILDREN'S CORNER** by "Aunt
Stella"
NIGHT SESSION.
8 p.m.—G.P.O. Clock Chimes. The "MER-
CURY" special Tasmanian news service.
Railway auction produce sales. Weather
information.
8.5 p.m.—Hobart stock exchange quotations.
9.10 p.m.—Literary Lectures and Library Lists
by Mr. W. K. Falls.
9.30 p.m.—Musical items from the studio—
"social request" solos.
9.18 p.m.—Tasmanian Electric Weather reports
9.50 p.m.—The "MERCURY" special inter-
state news service. Weather synopses.
Station announcements. Ships within wire-
less range.
National Anthem.

Wed., February 2
2FC, SYDNEY

EARLY MORNING SESSION.

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

MORNING SESSION.

- 9.15 a.m.—The chimes of 2FC. Music from
the Studio.
10 a.m.—"Big Ben" and announcements.
10.5 a.m.—Late "Sydney Morning Herald"
news service.
10.45 a.m.—Music from the Studio.
10.45 a.m.—A morning reading.
11 a.m.—"Big Ben." Australian Press Asso-
ciation and Reuters' Cable Service.
11.30 a.m.—Music from the Studio.



DO YOU DAY DREAM?

When you were a boy, did you imagine yourself leading a forlorn hope, rescuing the lovely daughter of a grateful millionaire, making 200 not out against All England, or winning the heavyweight championship? I do!

And now that you have waist line and family, sit at a desk all day and mow your lawn in the evening, do you still do great things in day dreams? I do!

That is why I like to read of the adventures of the Burgess Battery. I just imagine myself in its place and enjoy a thousand thrills!

I plunge under the seven seas in American submarines, hurtle across the United States with the transcontinental mail planes, cruise into a myriad picturesque spots in that magic yacht Speejacka.

With our own Captain Hurley, I sit among New Guinea cannibals, charming them with the strains of Rose Marie on my wireless; or I tear a bleeding way through the matted jungles of Brazil, side by side with the intrepid Rice, dodging poisoned darts from head-hunters.

On a hot day, I fly across the North Pole in that supremely reckless and amazingly successful dash by Commander Byrd; ride majestically over the ice floes with Amundsen in the Norge; or fight northward day by day in the grim defeat of Captain Wilkins. I join MacMillan in the Arctic or Hobbs in Greenland.

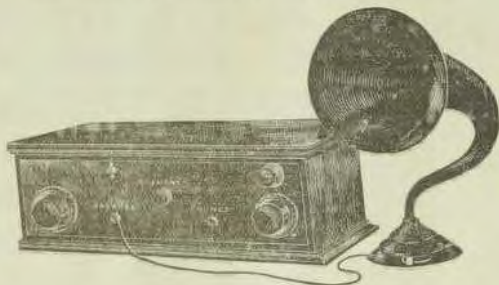
Yet everywhere Burgess Batteries link these adventurers to the rest of the world which wears trousers and rides in trams!

Mine it is to ride in a tiny swaying basket as the great balloon Goodyear 111 wins international contests; or to look serenely out through the windows of Uncle Sam's latest dirigible.

Best of all are the wild days spent with those handful of brave men, the Mounted Police of Canada's vast north-west. With them I defy blizzard, hunger and wolves, and the deadlier rifles of the men I seek. And at night I report by wireless across a thousand white-capped lonely miles, while my huskies howl outside the log cabin.

Do you wonder that I should like to be a Burgess Battery, chosen as the best friend of the men who are daring death in a thousand adventures?

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DAVID JONES'

11.15 a.m.—A talk on home cooking and recipes by Miss Ruth Furst.
11.50 a.m.—Close down.

MIDDAY SESSION.

12 noon—"Big Ben" and announcements.
12.5 p.m.—Stock Exchange, first call.
12.10 p.m.—Music from the Studio.
12.43 p.m.—FROM FARMER'S OAK HALL.—Instrumental item by the Oak Hall Trio.
12.50 p.m.—Buffy wireless news.
12.55 p.m.—Miss Ruby Swadlow, soprano.
1 p.m.—"Big Ben" and announcements. Weather intelligence.
1.13 p.m.—"Evening News" midday news service. Professed's Dazzling Society's report.
1.20 p.m.—FROM FARMER'S OAK HALL.—The Oak Hall Trio.
1.25 p.m.—Music from the Studio.
1.30 p.m.—Stock Exchange, second call.
1.35 p.m.—Music from the Studio.
1.45 p.m.—Miss Ruby Swadlow, soprano.
1.50 p.m.—FROM FARMER'S OAK HALL.—The Oak Hall Trio.
2 p.m.—"Big Ben." Close down.

AFTERNOON SESSION.

2.30 p.m.—The chimes of 2PL, Studio music.
3 p.m.—"Big Ben." A reading.
3.15 p.m.—FROM THE WENTWORTH CAFE, SYDNEY.—The New Wentworth Symphonic Dance Orchestra, conducted by Mr. Sydney Simpson.
3.30 p.m.—FROM FARMER'S TEA ROOMS.—The Oak Hall Trio (leader, Mr. Horace Kent).
3.40 p.m.—Miss Eileen Crowley, soprano. "The Challenge of Spring" (Liddle).
3.45 p.m.—The Oak Hall Instrumental Trio.
3.55 p.m.—Studio music.
4 p.m.—FROM FARMER'S TEA ROOMS.—Miss Annie Payne, mezzo.
4.5 p.m.—The Oak Hall Trio.
4.15 p.m.—Studio music.
4.20 p.m.—FROM FARMER'S TEA ROOMS.—Miss Eileen Crowley, soprano. "The Scarecrow" (Davies).
4.25 p.m.—The Oak Hall Trio.
4.35 p.m.—Studio music.
4.40 p.m.—FROM FARMER'S TEA ROOMS.—Miss Annie Payne, mezzo.
4.45 p.m.—Stock Exchange, third call.
4.46 p.m.—Close down.

EARLY EVENING SESSION.

5.45 p.m.—The Chimes of 2PL.
5.50 p.m.—"The Hello Man" talks to the children.
6.30 p.m.—A serial story for the older ones.
6.45 p.m.—Dinner music.
7.10 p.m.—Late "Evening News" news service. Weather intelligence.
7.23 p.m.—Daily's Market Reports, (wheat, wool, stock) fruit and vegetable markets.
7.49 p.m.—Close down.

NIGHT SESSION.

7.55 p.m.—Announcement of a programme devoted to Sea Song Stories.
8 p.m.—"Big Ben." Songs of the Sea, by Alex Whitton, baritone.
8.10 p.m.—Flinders Barr will describe some old sea customs.
8.15 p.m.—Sea Chanties, specially arranged for broadcasting and sung by a Choir of Male voices under the leadership of Mr. Herbert Fry.
8.22 p.m.—Mr. Norman Howeslow, bass.
8.30 p.m.—Miss Alice Browne, contralto (first appearance at the Studio). It sings from the Edward Elgar "Sea Pictures."
8.40 p.m.—Sea Chanties.
8.45 p.m.—Flinders Barr will talk of the Sea.
8.55 p.m.—Sea Chanties.
9 p.m.—"Big Ben." FROM THE KING'S HALL, under the auspices of the Navy League, an address by Commander Arthur Marsden, R.N., who is at present on a world's tour. Commander Marsden will talk of the "Battle of Jutland."

9.50 p.m.—From the Studio. A real old time story of a night at sea, told by Flinders Barr, with atmosphere incidental to the story.
9.40 p.m.—Mr. Alex Whitton, baritone.
9.48 p.m.—Sea Chanties.
9.52 p.m.—Miss Alice Browne, contralto.
10 p.m.—Mr. Norman Howeslow, bass.
10.4 p.m.—The 2PL Studio Danse Band (Conductor Mr. Eric Pearson) and Mr. Len Maurice, popular baritone.
10.18 p.m.—Mr. Reg Greenwood, baritone.
10.22 p.m.—The 2PL Studio Danse Band, and Mr. Len Maurice, popular baritone.
10.30 p.m.—Mr. Reg Greenwood, baritone.
10.35 p.m.—The 2PL Studio Danse Band.
10.46 p.m.—Celebrity records.
10.52 p.m.—The 2PL Studio Danse Band.
11.0 p.m.—"Big Ben" and announcements.
11.5 p.m.—The 2PL Studio Danse Band, with Mr. Len Maurice, popular baritone, until midnight.
12 midnight—"Big Ben." National Anthem. Close down.

2BL, SYDNEY

EARLY MORNING SESSION.

7.15 a.m.—G.P.O. clock and chimes. 7.14 Musical programme from Studio.
7.19 a.m.—Physical training and health exercises.
7.25 a.m.—Hints on health.
7.30 a.m.—Physical training and health exercises.
7.35 a.m.—G.P.O. clock and chimes. 7.44 Weather report and forecast.
7.48 a.m.—Sporting information.
7.54 a.m.—Broadcasters' special news service.
8 a.m.—G.P.O. clock and chimes. Close down.

MORNING SESSION.

Racing information broadcast by courtesy of the "Sun."
11 a.m.—G.P.O. clock and chimes. 11.1 Weather report.
11.3 a.m.—Musical programme from the Studio.
11.17 a.m.—Sydney "Daily Telegraph" News service.
11.20 a.m.—Women's Session, conducted by Mrs. Jordan. Social Notes.
11.40 a.m.—Mrs. Jordan replies to correspondents.
11.50 a.m.—Talk on "Infant Welfare" by Mrs. Jordan.
12.15 p.m.—Rabbit market report. 12.17 Fish market report.
12.19 p.m.—Vegetable market report. 12.21 Fruit market report.
12.23 p.m.—London dairy, farm, egg, and poultry market report.
12.25 p.m.—London metal quotations.
12.30 p.m.—G.P.O. clock and chimes.
12.31 p.m.—Bonds in call by wireless. 12.33 Weather report.
12.35 p.m.—Shipping information—arrivals and departures.
12.38 p.m.—Sydney Stock Exchange calls.
12.41 a.m.—News service by courtesy of the "Sun."
1 p.m.—G.P.O. clock and chimes.
1.1 p.m.—Pianoforte lecture recital by Mr. R. A. Mott, B.A., broadcast from the Fine Art Gallery, Anthony Harders.
1.40 p.m.—Weather report.
1.45 p.m.—Sydney Stock Exchange calls.
1.48 a.m.—Musical programme from the Studio.
2 p.m.—G.P.O. clock and chimes.
2.1 p.m.—Racing Resume, 2.4 News from the "Sun."
2.20 p.m.—Musical programme from the Studio.
2.40 p.m.—Weather report and forecast by courtesy of Mr. C. J. Mares.
2.49 p.m.—Racing notes from the "Sun."
3.45 News from the "Sun."
3 p.m.—G.P.O. clock and chimes.

3.1 p.m.—Concert broadcast from the Studio under the direction of Mrs. Piddington.
3.30 p.m.—Racing resume. 3.34 News from the "Sun."
3.45 p.m.—Musical programme from the Studio.
4 p.m.—G.P.O. clock and chimes. 4.1 Racing resume.
4.5 p.m.—News from the "Sun."
4.15 p.m.—General story. 4.30 G.P.O. clock and chimes.
4.31 p.m.—Producers' Distributing Society's Fruit and Vegetable Market report.
4.35 p.m.—Racing resume. 4.35 Musical programme from Studio.
4.51 p.m.—Shipping information when available.
4.53 p.m.—Racing resume.
4.58 p.m.—Resume of night's programme.
5 p.m.—G.P.O. clock and chimes. 5.1 Resume of day's racing.
5.5 p.m.—Close down.

EARLY EVENING SESSION.

5.45 p.m.—G.P.O. clock and chimes. 6.15 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.
7.10 p.m.—Australian Mercantile, Land, and Finance Co's report.
Weather report and forecast by courtesy of Mr. C. J. Mares.
Producers' Distributing Society's Fruit and Vegetable report.
Sydney Stock Exchange calls.
Grain and Fodder report ("Sun").
Dairy Produce report ("Sun").
7.15 p.m.—Country news from the "Sun."
7.45 p.m.—A talk on "Boats, Wine and Otherwise."

8 p.m.—G.P.O. clock and chimes.
8.10 p.m.—Broadcasters' Special Chimes.
8.2 p.m.—Broadcasters' Trio.
8.15 p.m.—Professor Randal Woodhouse, tenor.
8.20 p.m.—Mr. W. E. Lewis, baritone.
8.27 p.m.—Mr. E. Gattenwiller will talk on "Building a Valve Set."
8.47 p.m.—Duet: Miss Derris Ward and Mr. W. E. Lewis.
8.51 p.m.—Mr. Reg Harcourt, comedian.
8.58 p.m.—Resume of following day's programme.

9 p.m.—G.P.O. clock and chimes.
Weather report and forecast by courtesy of Mr. C. J. Mares, Government meteorologist.
9.3 p.m.—Broadcasters' Trio.
9.15 p.m.—Miss Dorrie Ward.
9.20 p.m.—Mr. Will Cherry (imitations of Australian birds).
9.27 p.m.—Professor Randal Woodhouse.
9.34 p.m.—Interval.
9.39 p.m.—Broadcasters' Trio.
9.50 p.m.—Mr. W. E. Lewis.
9.55 p.m.—Mr. Reg Harcourt.
10.3 p.m.—Miss Dorrie Ward.
10.10 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" Newspapers will be broadcast.
12 midnight—G.P.O. clock and chimes. National Anthem.

2GB, SYDNEY

MORNING SESSION.

"CHIBERIO HOUR," conducted by "CHIBERIO" Man.
9.30 a.m.—Music.
9.35 a.m.—Gladiators Chat.
9.50 a.m.—Music.
10.0 a.m.—Home Entertainment Topics.
10.15 a.m.—Music.
10.20 a.m.—Five minutes with Children at Home.
10.25 a.m.—Announcements: Close Down.

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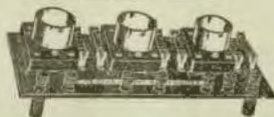
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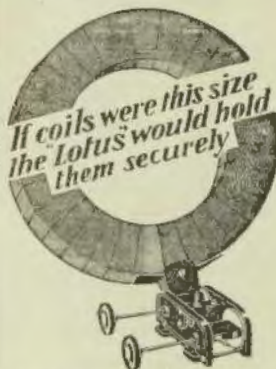
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WOMEN'S NEWS SESSION.

- 3.30 p.m.—Music.
- 3.40 p.m.—Humanitarian Movements in Series.
- 3.45 p.m.—Music.
- 4.5 p.m.—News from everywhere for Women.
- 4.20 p.m.—Music.
- 4.40 p.m.—Close Down.
- 5.40 p.m.—THE CHILDREN'S SESSION, conducted by the Cheshire Mss.
- 7.15 p.m.—
- 7.30 p.m.—Music from Studio.
- 7.45 p.m.—Announcements.
- 7.55 p.m.—Duet for two violins with piano accompaniment. DAN SCULLY, MONICA HORDER, ADA BROOK.
- 8.1 p.m.—Address on "Travel," by J. J. VAN DER LEEUW.
- 8.15 p.m.—Vocal Trios:
 - 1. "Lightly Tread, 'tis Hallowed Ground."
 - 2. "Hail! Thou Merry Month of May."
 Artists: Margaret Best, Eva Croft, Clement Hosking.
- 8.23 p.m.—Instrumental Trio: Dan Scully, Mariel Lang, Ada Brook.
- 8.35 p.m.—Songs by EVA CROFT.
 - 1. "I Know Where I'm Going." Arranged by Herbert Hughes.
 - 2. "The Lover's Curse." Arranged by Herbert Hughes.
- 8.45 p.m.—Violin Solos by Monica Horder.
- 8.51 p.m.—Announcements.
- 9 p.m.—Vocal Trios.
 - 1. "Breathe Soft, ye Winds."
 - 2. "Alibionian Phosphoric."
 Artists: Margaret Best, Eva Croft, Clement Hosking.
- 9.5 p.m.—Piano solos by Miss Ada Brook.
- 9.16 p.m.—Talk on Radio.
- 9.25 p.m.—Violin Solos by Dan Scully.
- 9.36 p.m.—Vocal Trio:
 - 1. "The Wreath."
 Margaret Best, Eva Croft, Clement Hosking.
- 9.40 p.m.—Duet for two violins with piano. Dan Scully, Monica Horder, Ada Brook.
- 9.50 p.m.—Choric Talk."
 - 10.0 p.m.—"Great Thoughts."

3LO, MELBOURNE

MORNING SESSION.

- 12 noon.—Time signal. Reuter's and the Australian Press Association Cables. "Argus" and "Herald" News. Shipping intelligence.
- 13.30 p.m.—3LO MELODY MASTERS: "There never was a gal like you."
- "My girl has eye trouble."
- 12.40 p.m.—VICTORIA WILSON, soprano: "If you have naught to say to me" (Hart). "Autumn Thoughts" (Greig).
- 12.47 p.m.—Meteorological Information. Weather forecast for Victoria, Tasmania, South Australia and New South Wales. River reports. Stock Exchange information.
- 1 p.m.—3LO MELODY MASTERS: "Honeylunch."
- "Twilight."
- 1.10 p.m.—PREMIER FOUR: "Mignonette."
- "Hello, Aloha."
- 1.17 p.m.—3LO MELODY MASTERS: "Eye, Bye Blackbird."
- "There's a Swainson on the Volga."
- 1.27 p.m.—VICTORIA WILSON, soprano: "Solving Song" (Gracie). "Over the Mountains" (Quilter).
- 1.34 p.m.—3LO MELODY MASTERS: "Just a Bird's Eye View."
- "Sunday."
- 1.44 p.m.—THE PREMIER FOUR: "The World is Waiting for the Sunrise." "Headin' for Louisville."
- 1.51 p.m.—3LO MELODY MASTERS: "Paradise Alley."
- "While the Years go Drifting By."
- 2 p.m.—Close down.

AFTERNOON SESSION.

- Announcer MAURICE DUDLEY
- Accompanist AGNES FORTUNE
- 1 p.m.—THE STUDIO ORCHESTRA: "Kala Beta," French Comedy Overture.

- 3.10 p.m.—MISS FRANCES FRASER: "Some English Strives."
- 3.25 p.m.—THE MUSICAL GARDINERS: Banjo and Mandolin Concert. French Horn, Solo. Steel Guitar, French Horn and Mandolin. Organophone Duet. Organ Chimes, Selection.
- 3.42 p.m.—DR. ARNOLD BARTOLINI "Serenata" (Tosti).
- 3.49 p.m.—STUDIO ORCHESTRA: "A Life on the Ocean," Part I. (Binding).
- 3.59 p.m.—THE ROYAL SCOTS: "Look at the Kiltie Boys" (Walker). "Love's Old Sweet Song" (Molloy).
- 4.4 p.m.—STUDIO ORCHESTRA: "A Life on the Ocean," Part II. (Binding).
- 4.12 p.m.—DR. BARTOLINI: "Bacciani" (Tosti). "Serenata" (Mascagni).
- 4.21 p.m.—THE ESTELLE MARK TRIO: Estelle Rose, "Only the River Running By." Margot Sheridan, "Fouces Valentin."
- 4.30 p.m.—Estelle Mark, "Just a Cottage Small." Ceila Kidduf, "Legends" (Bohr). Estelle Mark, "Negro Spiritual."
- 4.40 p.m.—"Herald" and "Argus" News Service."
- 4.5 p.m.—Close down.

EVENING SESSION.

- 5.40 p.m.—CHILDREN'S HOUR. Answers to letters and birthday greetings.
- 6.05 p.m.—THE ROYAL SCOTS will sing and then tell the children a funny story.
- 6.2 p.m.—"MARY MARY, QUITE CONTRARILY" will tell about "The Girls of the Wild Wind."
- 6.5 p.m.—THE AUSTRALIAN LADIES' PIPE BAND: Pipe Solo, Piper Gerlie Oliver. Education, Drum Corp, Leura Bate. Pipe Solo, Pipe Major Dolly McPherson. Song, Drummer Molly Innes. The Australian Ladies' Pipe Band.
- 6.15 p.m.—"Mary, Mary, Quiet Costers"; "New Robin Hood Became an Outlaw."
- 6.45 p.m.—"Argus" and "Herald" News Service. Reuter's and the Australian Press Association Cables. Shipping movements. Overseas shipping. Weather information.
- 6.45 p.m.—Stock Exchange information.
- 6.52 p.m.—Fish market reports, by J. R. Barrett, 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, Cattle, Hay, Straw, Tote, Dairy Produce. Potatoes and Onions.
- 7.6 p.m.—Market prices of oranges and lemons, by the Victorian Central Citrus Association.

NIGHT SESSION.

- Accompanist AGNES FORTUNE
- Announcer ALFRED ANDREW
- 7.15 p.m.—Under the auspices of the Department of Agriculture, Mr. R. Crowe, Exports Superintendent, "Market Comments."
- 7.30 p.m.—GARGOYLE will speak on "Lubrication Logic—a general talk on motoring."
- 7.45 p.m.—CAPTAIN PETERS: Books, Wise and Otherwise.
- 8 p.m.—TIVOLI THEATRE ORCHESTRA, under direction of MIL ERNEST C. ORAN, by permission of J. C. Williamson, Ltd.
- 8.30 p.m.—DR. BARTOLINI, baritone: "Aria from Africana of Nelusko" (Meyerbeer). "Sogni" (Tosti).
- 8.37 p.m.—STUDIO ORCHESTRA: "Pilgrim's Chorus" (Tanhauser). "Evening Star" (Tanhauser).
- 8.47 p.m.—SAFFO ARNAV, soprano: "Farewell to My Home" (Catalini). "Down in the Forest" (L. Ronaldi).

- 8.54 p.m.—SIR JAMES EDLERS, K.B.E., formerly Commissioner for Australia in United States of America: "The reason for America's Industrial Progress."
- 9.0 p.m.—THE ESTELLE MARK TRIO: Song, Estelle Mark: "The greatest wish in the world" (Del Rio). Piano, Margot Sheridan: "Polonaise in A" (Chopin). Song, Estelle Mark: "Here in the quiet hills" (Carne). Violin, Ceila Kidduf: "La Capricieuse" (Rigney).
- 9.21 p.m.—STUDIO ORCHESTRA: "Serenade" (Drigo). "Melody in F" (Rubenstein).
- 9.31 p.m.—THE ROYAL SCOTS: "Dougal" (Griffin). "Hielie Ham" (Walker).
- 9.38 p.m.—AUSTRALIAN LADIES' PIPE BAND, under direction of Drum Major Darwin, F.R.G.S.: Pipe Solo, Pipe Major Dolly McPherson. Education. Drum Corp, Leura Bate. Pipe Solo, Pipe Major Dolly McPherson. Song, Piper Ffira Ash. Australian Ladies' Pipe Band.
- 10 p.m.—British official wireless news from Rugby. Sporting notes by "Olympus."
- 10.10 p.m.—THE MUSICAL GARDINERS, Instrumental Quartets Party: Banjo and Mandolin, "Major versus Minor." French Horn Solo, "Violeta," Mr. Geo. Gardner. Steel Guitar, French Horn, and Mandolin, "Rosary." Organophone Duet, "Russian Rag." Organ Chimes Selection, Annie Laurie.
- 10.30 p.m.—SAFFO ARNAV, soprano: "The Sweetest Flower" (Hawley). "A Heart That's Free" (Rubyn).
- 10.35 p.m.—Argus' news service. Weather forecast. Announcements.
- 10.41 p.m.—3LO MELODY MASTERS: "Paradise Alley."
- "While the Years go Drifting By."
- "Hi-Lo-the Merry."
- 11 p.m.—OUR GREAT THOUGHT: "There is nothing more friendly than a friend in need." (Plautus).
- 11.1 p.m.—3LO MELODY MASTERS: "Smiling Eyes."
- "Twilight."
- "There's a Boatman on the Volga."
- "Through Excessity I'll Dream of You." "I'm Walking Round in Circles."
- 11.40 p.m. GOD SAVE THE KING.

4QG, BRISBANE

EARLY MORNING SESSION.

- 6.40 a.m.—Physical Culture Session.
- 7.0 a.m.—Close Down.
- MIDDAY SESSION.
- 12.55 p.m.—Tune In.
- 1.55 p.m.—Time Signal.
- 1.0 p.m.—Market Reports; Weather information supplied by the Commonwealth Weather Bureau. News Service supplied by "The Daily Mail" and "The Daily Standard."
- 1.20 p.m.—From Hotel Carlton: Lunch Music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
- 1.55 p.m.—From the Observatory: Standard Time Signal.
- 2.0 p.m.—Close Down.

AFTERNOON SESSION.

- 2.30 p.m.—From Hotel Carlton: Afternoon Tea Music from the Lounge, played by Hotel Carlton Symphony Orchestra.
- 4.15 p.m.—Even the Studio: News Service supplied by "The Telegraph."
- 4.40 p.m.—Close Down.
- EARLY EVENING SESSION.
- 6.0 p.m.—"Daily Standard" News Announcements.
- 6.30 p.m.—"The Children's Hour"—Stories by "Little Man Brisbane."

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7.30 p.m.—Market Reports. Lectures—"The Farm Separator—How to reduce losses," by Mr. F. R. Keats (Instructor in Dairying Queensland Agricultural High School and College).
 7.30 p.m.—Stock Reports; Announcements; Weather News.
 7.45 p.m.—Standard Time Signal.

WIRELESS WEEKLY

7.45 p.m.—Lecture Session, A French Tale—the third of a series by Comte de Tournouer.
 8.0 p.m.—Overture, "The Vampire" (Lindpainter), the Studio Orchestra (conductor, Mr. A. R. Featherstone); contralto solo, "The Silver Ring" (Chaminade), Mrs. Charles Miller; melody, "Aria in E-flat" (Faust), the Studio Orchestra; melody and mirth by "The Happy Boys"; tenor solo, "Rose of My Heart" (Lohr), Mr. J. F. Maxwell; monologue, "Little Tin Shoes" (Sullivan), Miss Gladys Widdie; value, "Præce Annanias" (Herbert), the Studio Orchestra; baritone solo, "The Dearest Lover" (M. V. White), Mr. D. Daniels; characteristic, "The Old Wolf" (Berndt), the Studio Orchestra; soprano solo, "Birds of Love Divine" (Wood), Mrs. R. G. Allen.
 8.0 p.m.—Metropolitan Weather Forecast; contralto solo, "Life's Gifts" (Clotson), Mrs. Charles Miller; selection, "The Red Hussar" (Moore), the Studio Orchestra; soprano solo, "June Music" (Trent), Miss E. Murphy; monologue, "Foolish Questions" (Hayes), Miss Gladys Widdie; tenor solo, "Serenade in Summer" (Mr. J. F. Maxwell); clarinet solo, "Serenade" (Ginns), Mr. C. Hansen (accompanied by the Studio Orchestra); baritone solo, "My Life for Thee" (Adams), Mr. D. Daniels; more merriment and mirth by "The Happy Boys"; soprano solo, "Home of Mine" (Marchel), Mrs. R. G. Allen; orchestral—jazz waltz "Nineteen Ninette, Ninon" (Silberman) f. cello, "Where'd You Get Those Eyes?" (Donaldson), the Studio Orchestra.
 10.0 p.m.—The "Daily Mail" News; Weather News. Close Down.

5CL, ADELAIDE

MORNING SESSION,

11.30 a.m.—G.P.O. Chimes.
 11.31 a.m.—Stock Duo Art number.
 11.40 a.m.—"Advertiser" news service.
 11.55 a.m.—Variation number.
 12 noon.—R.P.O. Chimes.
 12.1 p.m.—"Advertiser" news service continued.
 12.16 p.m.—Stock Duo Art number.
 12.30 p.m.—Studio Orchestra: Overture, "Zampa"; waltz, "Haven't You Got That Adorable midget"; Polish dance, "Polka"; selection, "Bird of Paradise"; violin solo, "Echus Kasmarin"; Valse Furtif; finale, "The Suburban Girl".
 1.35 p.m.—Ward & Co.'s Stock Exchange report, official weather synopsis and station announcements.
 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 Maple Leaf Cafe—Orchestral numbers.
 3.4 p.m.—From the Studio—Stock Duo Art numbers.
 4.0 p.m.—G.P.O. Chimes.
 4.1 p.m.—Relay from Arcadia Cafe—Orchestral numbers.
 4.55 p.m.—Stock Exchange reports, general information and station announcements.
 5.0 p.m.—G.P.O. Chimes and close down.

EVENING SESSION,

6.30 p.m.—G.P.O. Chimes.
 6.31 p.m.—Stock Duo Art number.
 6.35 p.m.—The Children's Hour. Bedtime stories and nursery rhymes.
 7.30 p.m.—Market reports.
 7.40 p.m.—Boy Scout's corner.
 7.50 p.m.—Faulding's scientific talk.
 8.0 p.m.—G.P.O. Chimes.

8.1 p.m.—Grand varied instrumental and vocal concert by Allan's Warehouse Concert Party.
 8.5 p.m.—G.P.O. Chimes.
 9.1 p.m.—Weather report.
 9.3 p.m.—Dalgety's market report.
 9.5 p.m.—Allan's concert party programme continued.
 10.0 p.m.—G.P.O. Chimes.
 10.1 p.m.—"Advertiser" news service.
 10.15 p.m.—Concert party programme continued.
 10.38 p.m.—Station announcements.
 11 p.m.—G.P.O. Chimes, National Anthem and close down.

6WF, PERTH

12.30 p.m.—Time in.
 12.45 p.m.—First local news bulletin.
 Market reports.
 1.0 p.m.—Time signal from the Perth Observatory.
 1.1 p.m.—Weather notes.
 1.3 p.m.—Studio Sonata.
 2.0 p.m.—Close down.
 2.40 p.m.—Time in.
 2.50 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 Cecilia Henry, Leslie Perry and Dolly.
 7.55 p.m.—Stock and share intelligence.
 Market reports.
 Outlook. News supplied by courtesy of "The West Australian" Newspaper Co.
 8 p.m.—Time signal from the Perth Observatory.
 8.1 p.m.—Weather forecast.
 8.2 p.m.—Variety.
 The Studio Singing Trio:
 Miss Keppie Willis, A.R.C.M., piano.
 Mr. H. G. Ingham, cello.
 Mr. H. E. Newton, violin.
 10 p.m.—dental news bulletin supplied by courtesy of "The Daily News" Newspaper Co.
 10.20 p.m.—Close down.

7ZL, HOBART

MORNING SESSION,

11 a.m.—G.P.O. Clock Chimes. The "MERCURY" news, Shipping, Commercial intelligence, Weather information, Ships within wireless range. Mail advice.
 12 noon.—G.P.O. Clock Chimes. Close down.
 AFTERNOON SESSION,
 3 p.m.—G.P.O. Clock Chimes. Musical items from the studio. Story from Illustrated Tasmanian Mail.
 3.50 p.m.—Hobart stock exchange quotations.
 3.55 p.m.—Weather information.
 4 p.m.—G.P.O. Clock Chimes. Close down.

EVENING SESSION,

7 p.m.—CHILDREN'S CORNER. "Big Brother" talks to his Pat.
 7.1 p.m.—Story from Illustrated Tasmanian Mail.
 NIGHT SESSION,
 8 p.m.—G.P.O. Clock Chimes. The "MERCURY" special Tasmanian news service. Railway auction produce sales. Weather information and sporting results.
 8.5 p.m.—Hobart stock exchange quotations.
 9.10 p.m.—Abattoirs and stock market reports from Roberts and Co. Ltd., Murray Street, Hobart.
 9.15 p.m.—Physical Culture talk by Mr. George Coffin.
 9.30 p.m.—Concert from the studio.
 9.45 p.m.—Tasmanian District Weather reports.
 9.55 p.m.—The "MERCURY" special interstate news service. Weather synopsis. Station announcements. Ships within wireless range.
 National Anthem.

Thur., February 3
2FC, SYDNEY

EARLY MORNING SESSION,

7.30 a.m.—"Big Ben" and announcements.
 7.35 a.m.—Music from the studio.
 7.40 a.m.—Official weather forecast, rainfall, temperature, astronomical memoranda, shipping intelligence, news services.
 7.45 a.m.—Investment market, mining share market, metal markets.
 7.55 a.m.—Wool sales, breadstuffs markets, InterState markets, produce markets.
 7.55 a.m.—"Sydney Morning Herald" news service.
 8.0 a.m.—"Big Ben," Music from the Studio.
 8.15 a.m.—Close down.
 MORNING SESSION,
 9.15 a.m.—The Chimes of 2FC, Music from the Studio.
 9.45 a.m.—Last minute sporting information by the 2FC Racing Commentator.
 10.0 a.m.—"Big Ben" and announcements.
 10.5 a.m.—Late "Sydney Morning Herald" news service.
 10.55 a.m.—Music from the Studio.
 10.55 a.m.—A morning reading, by Mr. A. G. Cochran, from "Diogenes".
 11.0 a.m.—"Big Ben," Australian Press Association and Butcher's Table Services.
 11.10 a.m.—Music from the Studio.
 11.30 a.m.—Close down.

MIDDAY SESSION,

11.35 noon—"Big Ben" and announcements.
 11.50 noon—Stock Exchange, first call.
 12.10 p.m.—Music from the Studio.
 12.40 p.m.—From Farmer's Oak Hall—Instrumental item by the Oak Hall Trio.
 12.50 p.m.—Radio Vintages scene.
 12.55 p.m.—Miss Thelma Mitchell, soprano.
 1.0 p.m.—"Big Ben," Weather intelligence.
 1.3 p.m.—"Evening News" midday news service. Producers' Distributing Society's report.
 1.50 p.m.—From Farmer's Oak Hall Instrumental item by the Oak Hall Trio.
 1.55 p.m.—Studio music.
 1.50 p.m.—Stock Exchange, second call.
 1.55 p.m.—Studio music.
 2.15 p.m.—Miss Thelma Mitchell, soprano.
 1.50 p.m.—From Farmer's Oak Hall—The Oak Hall Trio (Leader, Mr. Horace Kental).
 1.55 p.m.—From the Studio—Sporting information by the 2FC, Racing Commentator.
 2.10 p.m.—Close down.

AFTERNOON SESSION

2.30 p.m.—The Chimes of 2FC, and announcements.
 2.35 p.m.—Some new records.
 2.45 p.m.—Favorite reproductions in the "Bubbling" Flange Piano.
 3.15 p.m.—Reading.
 3.30 p.m.—FROM FARMER'S TEA ROOMS—The Oak Hall Trio (Leader, Mr. Horace Kental).
 3.40 p.m.—Miss Marjorie Cole, soprano.
 3.45 p.m.—The Oak Hall Trio.
 3.50 p.m.—Studio music.
 4.0 p.m.—FROM FARMER'S TEA ROOMS—Miss Ethel Miller, contralto.
 4.05 p.m.—The Oak Hall Trio.
 4.15 p.m.—Studio music.
 4.20 p.m.—FROM FARMER'S TEA ROOMS—Miss Marjorie Cole, soprano.
 4.25 p.m.—The Oak Hall Trio.
 4.35 p.m.—Studio music.
 4.40 p.m.—FROM FARMER'S TEA ROOMS—Miss Ethel Miller, contralto.
 4.45 p.m.—Stock Exchange, third call.
 4.46 p.m.—Close down.

EARLY EVENING SESSION,

5.45 p.m.—Chimes.
 5.46 p.m.—The "Hello Man" talks to the Children.
 6.30 p.m.—A serial story for the older ones.
 6.45 p.m.—Dinner music.

7.10 p.m.—"Evening News" late news service. Weather intelligence.

7.25 p.m.—Daherty's Market Reports (wheat, wool, stock) fruit and vegetable markets.

7.35 p.m.—Celebrating the Birth of Medicine—some typical music will be broadcast.

7.45 p.m.—Hints to listeners by the Technical Editor of "Wireless Weekly."

NIGHT SESSION.

7.55 p.m.—Announcements.

8.0 p.m.—"Big Ben." FROM THE KING'S CROSS THEATRE—Isma by the Orchestra, conducted by Mr. Ernest J. Roberts.

8.30 p.m.—FROM THE STUDIO—Miss Erid D'Arcy, Lyric soprano—"Vivienne" (Dolci Aengas).

8.34 p.m.—The Congress Band.

8.40 p.m.—Mr. Ernest Archer, tenor.

8.44 p.m.—The Congress Band.

8.56 p.m.—"The Habitations of Bobby" by Mr. Robert Turner.

9.03 p.m.—The Congress Band.

9.18 p.m.—Miss Erid D'Arcy, Lyric soprano—"The Star" (Bozza).

9.28 p.m.—Mr. Ernest Archer, tenor.

9.24 p.m.—The Congress Band.

9.34 p.m.—Mr. Robert Turner in humorous story.

9.42 p.m.—The Congress Band.

9.48 p.m.—Miss Erid D'Arcy, Lyric soprano (a) "Swing Low, Sweet Chariot" (Burleigh) (b) "Sing, Sing, Blackbird" (Phillips).

9.55 p.m.—Mr. Ernest Archer, tenor.

10.3 p.m.—FROM THE KING'S CROSS THEATRE—Isma by the Orchestra conducted by Mr. Ernest J. Roberts.

10.39 p.m.—FROM THE STUDIO—Mr. Hai Back in popular numbers.

10.46 p.m.—FROM THE WENTWORTH CAFE—The New Wentworth Symphonic Dance Orchestra under the baton of Mr. Sydney Simpson.

10.52 p.m.—FROM THE STUDIO—Celebrity records.

11.0 p.m.—"Big Ben" and announcements.

11.5 p.m.—Mr. Hai Back in popular numbers.

11.15 p.m.—FROM THE WENTWORTH CAFE—SYDNEY—The New Wentworth Symphonic Dance Orchestra will play until midnight.

12 midnight—"Big Ben," National Anthem.

Close down.

2BL, SYDNEY

EARLY MORNING SESSION.

7.15 a.m.—G.P.O. Clock and Chimes.

7.16 a.m.—Musical Programme from Studio.

7.19 a.m.—Physical Training and Health Exercises.

7.25 a.m.—Hints on Health.

7.30 a.m.—Physical training and health exercises.

7.42 a.m.—G.P.O. Clock and Chimes.

7.46 a.m.—Weather report.

7.49 a.m.—Sporting information.

7.59 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.

10.26 a.m.—News service from the "Daily Telegraph."

10.55 a.m.—Musical programme from the studio.

10.59 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.—Habbit Market Report.

11.37 a.m.—Fish Market Report.

11.19 a.m.—Vegetable Market Report.

11.21 a.m.—Fruit Market Report.

11.29 a.m.—Report on the London Dairy Farm, Egg and Poultry Market.

11.29 a.m.—London Metal Quotations.

11.31 a.m.—Ships in call by wireless.

11.33 a.m.—Information re interstate and overseas mails.

11.35 a.m.—Shipping information—arrivals and departures.

11.37 a.m.—Weather report.

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11.40 a.m.—Women's Session, conducted by Mrs. Jordan—Social Notes.
 11.50 a.m.—Mrs. Jordan replies to correspondents.
 12 noon.—Talk on "Home Craft," by Mrs. Jordan.
 12.25 p.m.—News from the "Sun."
 12.30 p.m.—G.P.O. Clock and Chimes.
 12.31 p.m.—Sydney Stock Exchange Calls.
 12.32 p.m.—Sun Newspapers News Service.
 12.45 p.m.—Hillers' Instrumental Quartet—direction, Caryl Castling.
 1.30 p.m.—G.P.O. Clock and Chimes.
 1.31 p.m.—Weather report.
 1.33 p.m.—Sydney Stock Exchange Calls.
 1.45 p.m.—Musical programme from studio.
 2.0 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.
 3.1 p.m.—Weather report and forecast.
 3.5 p.m.—Social Notes from the "Sun."
 3.10 p.m.—News from the "Sun."
 3.15 p.m.—Musical programme from the studio.
 3.20 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.—Social 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.—Day's racing resume on race days.
 4.55 p.m.—News from the "Sun."
 4.58 p.m.—Resume of night's programme.
 5.0 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.—Uncle George and the Kiddies.
 6.40 p.m.—Musical programme from the studio.

SPECIAL COUNTRY SESSION.

7.0 p.m.—G.P.O. Clock and Chimes.
 7.1 p.m.—Australian Mercantile Land and Finance Co.'s Report; Weather report and forecast, by courtesy of the Government Meteorologist; Stock Exchange Reports; Producers' Distributing Society's Vegetable and Fruit Market Report; Grain and Fodder Report ("Sun"); Dairy Produce Report ("Sun").
 7.15 p.m.—Country News from the "Sun."
 7.30 p.m.—Talk on "The Dairying Outlook," by Mr. Bradford.
 8.0 p.m.—G.P.O. Clock and Chimes. Broadcasters' Topical Chorus.
 8.3 p.m.—Miss Edna Lester (Contralto).
 8.10 p.m.—Mr. Jack Wright (Jazz Pianist).
 8.20 p.m.—Fashion and Social Notes Broadcast from the Ballroom of the Ambassadors.
 8.26 p.m.—Mr. Lance Jeffers (Tenor).
 8.32 p.m.—Mr. Frank Ryan (Comedian).
 8.39 p.m.—Miss Helena Stewart (Soprano).
 8.46 p.m.—Mr. Bobby Watson (Comedian).
 8.53 p.m.—Ivy and Eric Butterfield (Steel Guitars).
 9.0 p.m.—G.P.O. Clock and Chimes; Resume of Following Day's Programme; Weather Report and Forecast by Courtesy of Mr. G. J. Maras, Government Meteorologist.
 9.5 p.m.—Nell Crane and AH. J. Lawrence.
 9.25 p.m.—Fashion and Social Notes from the Ballroom of the Ambassadors.
 9.30 p.m.—Miss Edna Lister.
 9.37 p.m.—Interval.
 9.42 p.m.—Ivy and Eric Butterfield.
 9.40 p.m.—Mr. Frank Ryan.
 9.55 p.m.—Miss Helms Stewart.
 10.5 p.m.—Mr. Lance Jeffers.
 10.10 p.m.—Mr. Bobby Watson.
 10.17 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" Newspapers will be broadcast.
 12 midnight.—G.P.O. Clock and Chimes. National Anthem.

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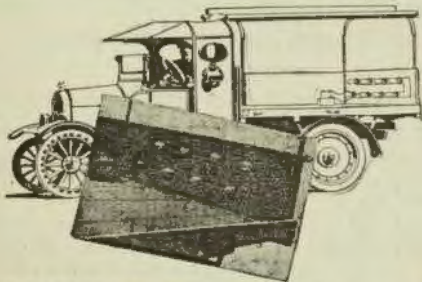
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3LO, MELBOURNE

MID-DAY SESSION.

- Announcer MAURICE DUDLEY
Accompanist AGNES FORTUNE
- 12 noon.—Time signal. British official wireless news from Rugby, Reuters and Australian Press Association Cables. "Argus" and "Herald" news services.
- 12.30 p.m.—STUDIO ORCHESTRA:
"Summer Days Soits." (Gostes)
- 12.45 p.m.—E. RICHARD CHUGG, Solo:
"Idylle" (Kranke).
- 12.50 p.m.—Weather reports and Stock Exchange information.
- 1 p.m.—THE ROYAL SCOTS:
"The wee loonae among the heather" (Lauder).
"Huhlanders" (Buchanan).
- 1.17 p.m.—THE STUDIO ORCHESTRA:
Intermezzo, "Little Miss Butterfly" (Cossika).
- 1.18 p.m.—REGINALD BRADLEY, violin:
"Sicquero" (Dediz).
- 1.20 p.m.—THE MUSICAL GARDENERS:
Banjo and Mandolin.
French Horn Solo.
Steel Guitar, French Horn and Mandolin.
Organ Chimes, selection.
X-Symphonic Duoet.
- 1.27 p.m.—THE ROYAL SCOTS:
"I Love to be a Sailor" (Lauder).
"Come Back to Me" (Rayward).
"The Lilies" (Walker).
- 1.43 p.m.—STUDIO ORCHESTRA:
Ballad Suite, "Salambo."
- 2 p.m.—Close down.
- Descriptions will be given of the Week-end Races, times of which will be announced.

AFTERNOON SESSION

A VARIED PROGRAMME

- Announcer MAURICE DUDLEY
Accompanist AGNES FORTUNE
- 3 p.m.—STUDIO ORCHESTRA:
"A Waltz Dream" (Stranad).
- 3.15 p.m.—THE PREMIER FOUR:
"That Certain Party"
"The Gloomy Hours My Blues"
- 3.22 p.m.—WALTER SMITH, cornet:
"Al and Pal"
- 3.29 p.m.—DR. ARNOLDI BARTOLINI, horns:
"Primo Nocturno" (Tosti).
"Second Nocturno" (Tosti).
- 3.37 p.m.—AUSTRALIAN LADIES' PIPE BAND, under the direction of Drum-Major William Darwin, F.R.G.S.:
Pipe Solo, Piper Martin Oliver.
Drum Solo, Drum Serge. Yates, Comp. Bate and Drummer Innes.
Elocution, Drum Corp. Leura Hete.
Pipe Solo, Pipe Major Daily McPherson.
Australian Ladies' Pipe Band.
- 4 p.m.—STUDIO ORCHESTRA:
"Entracte and Danes des Baschantes" (Gostes).
- 4.5 p.m.—THE PREMIER FOUR:
"When the one you love loves you."
"It was your hat."
- 4.15 p.m.—REG. BRADLEY violin:
"Andante from Concerto" (Mendelssohn).
"Song of India" (Rimsky-Korsakov).
- 4.35 p.m.—"Herald" news service. Stock Exchange information.
- 4.45 p.m.—Evening, transmitted from St. Paul's Cathedral.
- 5.30 p.m.—Close down.

EVENING SESSION.

- 5.10 p.m.—CHILDREN'S HOUR. Answers to letters and birthday greetings.
- 5.55 p.m.—"MARY GUMLEAF." Poems:
"The Invalid."
"Cuddle Time."
Story for the little ones: "The Adventures of Edward, the Red Teddy Bear."
- 6.5 p.m.—THE MUSICAL GARDENERS will entertain the children with various musical instruments.

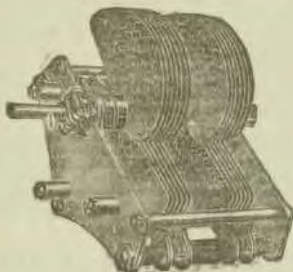
- 6.20 p.m.—Story for the boys, by "MARY GUMLEAF".
- "Bumps and Porky."
- Story for the girls:
- "Judge Loo and the Three Wise Women."
- 6.25 p.m.—"Argus" and "Herald" news reviews. Weather synopsis. Shipping movements.
- 6.47 p.m.—Stock Exchange information.
- 6.52 p.m.—Fish market reports, by J. R. Barrett, Ltd.
- 6.55 p.m.—Rivet reports.
- 6.59 p.m.—Market reports by the Victorian Producers' Co-operative Co., Ltd.
- 6.58 p.m.—Haymarket sheep sales, poultry, grain, straw, hay, Jute, dairy produce, potatoes and onions.
- 7.6 p.m.—Market prices of oranges and lemons, by the Victorian Central Citrus Association.
- 7.15 p.m.

NIGHT SESSION.

- Announcer ALFRED ANDREW
- Accompanist AGNES FORTUNE
- 7.15 p.m.—MR. A. W. JACKSON:
- "Golf."
- 7.30 p.m.—Under the auspices of the Health Association of Victoria, Mr. Riordan:
- "Oral Hygiene."
- 7.45 p.m.—MISS THURZA ROGERS, solo dancer, now appearing with "The Casino from Norwich," will speak to you from her dressing-room, by permission of J. C. Williams, Ltd.
- 8 p.m.—110 MELODY MASTERS:
- Foxtrot, "Paradise Alley."
- 8.10 p.m.—THE ROYAL SCOTS:
- "Reveille."
- 8.14 p.m.—110 MELODY MASTERS:
- Foxtrot, "While the Years go Drifting By."
- 8.24 p.m.—ESTELLE MARR, soprano:
- "Pale Moon" (Lagoda).
- 8.25 p.m.—110 MELODY MASTERS:
- Waltz, "I've Lost all My Love for You."
- 8.28 p.m.—CELIA KILDUFF, violinist:
- "Serrade Espagnole" (Chaminade-Erlerler).
- 8.43 p.m.—110 MELODY MASTERS:
- Foxtrot, "Hi-diddle-diddle."
- 8.53 p.m.—MARGOT SHERIDAN, pianoforte:
- "Petite Suite" (Coleclidge-Taylor).
- 8.58 p.m.—110 MELODY MASTERS:
- Foxtrot, "Honey Bunch."
- 9 p.m.—THE ROYAL SCOTS:
- "Oh Virginia."
- 9.18 p.m.—110 MELODY MASTERS:
- Foxtrot, "There's a Boatman on the Volga."
- 9.22 p.m.—ESTELLE MARR, soprano:
- "I Know a Lovely Garden."
- 9.26 p.m.—110 MELODY MASTERS:
- Foxtrot, "Just a Bird's Eye View."
- 9.36 p.m.—CELIA KILDUFF, violin:
- "Pomp" (Fibich-Kobell).
- 9.40 p.m.—110 MELODY MASTERS:
- Waltz, "Galling."
- 9.59 p.m.—BOB MOLYNEUX, baritone:
- Selected.
- 9.54 p.m.—110 MELODY MASTERS:
- Foxtrot, "Sunday."
- 10.4 p.m.—British official wireless news.
- "Argus" news service. Meteorological information. Sporting news by "Dunopus."
- 10.45 p.m.—110 MELODY MASTERS:
- Foxtrot, "Calling Me Home."
- 10.28 p.m.—MARGOT SHERIDAN, pianoforte:
- "Humoresque" (Perry FH).
- 10.32 p.m.—110 MELODY MASTERS:
- Foxtrot, "Back where the Dandelion grew."
- 10.42 p.m.—BOB MOLYNEUX, baritone:
- Selected.
- 10.47 p.m.—110 MELODY MASTERS:
- Waltz, "Visions of the Dance."
- 11 p.m.—OUR GREAT THOUGHT FOR TONIGHT:
- "The best and most important part of every man's education is that which he gives himself." (Gibbon.)
- 11.1 p.m.—110 MELODY MASTERS:
- "Openhaagen."
- "So Close Your Old Mandarin."
- "Night of Love."
- "He's Just a Hark Tossin' Fool."
- "Roses of Japan."
- "Hurrah for the Irish."
- 11.40 p.m.—GOD SAVE THE KING.



LOW-LOSS-DUAL-VARIABLE CONDENSER



PRICE
 '0003 37/6
 '0005 £2 5/-

An up-to-date Tuning Device for Modern Set Builders

The Igranic method of tuning is the simple and practical solution of the old problem of cutting down the large number of controls on multi-valve sets. In other words, simplifying tuning.

And, in addition to perfected dual control, its other fine points include the permanent absence of back-lash, accurate square-law characteristics, extremely low electrical losses and a handsome 4" combined knob and dial. In fact, it is SO GOOD that your set certainly deserves it.

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 and LAUNCESTON; also from J. R. W. Gardam, PERTH.

Sole Selling Agents for IGRANIC Radio Devices and BROWN Loud Speakers.

How to Select a Radio Receiving Set

Of first importance is tone quality. The pleasure you will derive from a radio receiver will be through the sense of hearing. The time has passed when it is necessary to temporise—to accept less than truthful reproduction as the "best that can be expected from radio." It is extremely critical. Have the set demonstrated thoroughly. Hear music and voice. Shut your eyes. Forget you are listening to radio. Do you hear all the instruments in the band or orchestra—do you hear the low notes as well as the high notes? Does the violin—the cello—the piano sound natural? Is the voice distorted, or clear and natural?

Hear the Garod. Its tone quality is justly acclaimed as a standard of excellence by which all others should be judged. Hearing it for the first time you will be surprised and delighted with radio reception at its best.

Upon your final decision depends the permanency of your investment in a radio receiving instrument. Should you be tempted by superficial, cheap considerations, or even by outward appearance to accept any radio receiver in which superior tone quality has been made a secondary consideration, you will undoubtedly suffer disappointment.

Broadcasting is being brought nearer and nearer to perfection. Programmes are being constantly improved. The best the world offers in music and other forms of oral entertainment are being made available for the owner of a radio receiver. If the receiver you select falls short of perfection in reproduction, you cannot get from it the full measure of enjoyable entertainment you have a right to expect. The very best safeguard against possible disappointment is to make your choice a Garod, acknowledged by the most critical music lovers to be the best to attain the ultimate in actual re-creation of broadcast programs.

The Garod "V"

The standard of excellence in radio. A powerful 5-tube Neutrodine Receiver in a beautifully finished mahogany cabinet, supported by carved feet. Panel of mahogany slopes at a pleasing angle. Large, beautifully poised pyralin dials.

Weston double reading voltmeter shows condition of both A and B batteries at all times. Connection cable eliminates snagging wires. Cabinet size 34 1/2 in. long, 12 1/2 in. deep, 11 1/2 in. high.

Have you ever wished to purchase one of the famous Double-Bristol valves? You know their merits—a master valve.

We are the Export Managers of the Double-Bristol Corporation, the makers of these valves. Other Agencies include:—

M.M. Fleron and Son, Inc.
Garod Corporation.
Holmes Elec. Mfg. Co.
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Madison Radio Corporation

Millimeter Machine Works,
Radio Appliance Laboratories,
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Scat-R-Heat.

Quite an expansive list, and the products include the well known

ARGON BATTERY CHARGER

which charges both A and B batteries.

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4QG, BRISBANE

MIDDAY SESSION.

- 12.55 p.m.—Tune in.
12.58 p.m.—Time Signal.
1.0 p.m.—Market Reports; Weather Information supplied by the Commonwealth Weather Bureau; News Service supplied by "The Daily Mail" and "The Daily Standard."
1.20 p.m.—From Hotel Carlton—Lunch Music from the Lounge, Hotel Carlton, played by Hotel Carlton Symphony Orchestra.
1.25 p.m.—From the Observatory; Standard Time Signal.
2.0 p.m.—Close Down.

AFTERNOON SESSION.

- 2.30 p.m.—From the Studio; A Programme of Music from the Studio.
4.15 p.m.—News Service supplied by "The Telegraph."
4.30 p.m.—Close Down.

EARLY EVENING SESSION.

- 6.0 p.m.—"Daily Standard" News; Announcements.
6.30 p.m.—"The Children's Session, Stories by 'The Sandman'."
7.0 p.m.—Market Reports; Lecturette, "Agricultural Journalism," Mr. J. F. F. Reid (Editor, "Queensland Agricultural Journal").
7.30 p.m.—Stock Reports; 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. Brainer (McLeod's Bookstore).
8.0 p.m.—STUDIO ENTERTAINMENT: Contralto solo, "Callar Herrin" (Scottish), Miss Ella Hoove; monologue, "An Old Tar's Tale" Mr. J. C. Devery; soprano solo, "My Ships" (Barrat), Miss Phyllis Vermer; cornet solo, "The Village Festival" (Clements), Mr. J. W. Burgemeister; tenor solo, "Sings My Mother Used to Sing" (Smith), Mr. C. Wiltmann; Hawaiian Instrumentalists, the Moana Duo; Contralto solo, "Young Night Thought" (Peel), Miss Mildred Bell; monologue, "The Game of Life" Wood and Harris, Mr. J. C. Devery; Hawaiian Instrumentalists, the Moana Duo; soprano solo, "Arise O' Sun" (Dwy), Miss Phyllis Vermer; cornet solo, "Romance Wendouree" (Code), Mr. J. W. Burgemeister; tenor solo, "Diana" (Reid), Mr. Geo. Williamson; Hawaiian Instrumentalists, the Moana Duo; contralto solo, "Where Go the Boats" (Del Riego), Miss Mildred Bell.
9.0 p.m.—Metropolitan Weather Forecast from the Band Room; An impromptu programme of music by the Greater Brisbane Municipal Concert Band.
10.0 p.m.—From the Studio; "The Daily Mail" News. Close Down.

6WF, PERTH

- 12.30 p.m.—Tune in.
12.35 p.m.—First local news bulletin, Market reports.
Cables.
2 p.m.—Time signal from the Perth Observatory.
3.15 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
4.0 p.m.—Studio Quartette.
4.30 p.m.—Close down.
5.20 p.m.—Tune in.
5.35 p.m.—Musical programme, including pianoforte selections by Miss Evelyn Willis, A.R.C.M.
6 p.m.—Studio Trio.
6.30 p.m.—Close down.
7 p.m.—Tune in.
7.0 p.m.—Stories for the Tiny Tots by Auntie Kate.
7.20 p.m.—Uncle Duffy will speak to the Kiddies.
7.35 p.m.—Stock and Share Intelligence.
Market reports.
Cables. News by courtesy of "The West Australian" Newspaper Co.

- 5 p.m.—Time signal from the Perth Observatory.
- 8.1 p.m.—Weather notes supplied by the Meteorological Bureau of Western Australia.
- 8.2 p.m.—Orchestral Night:
GWF's Station Orchestra,
Conductor, Mr. Ronald E. Mople, A.T.C.I.
Mr. Cliff Barreder, baritone:
"Tonight and All the Years" (Phillips).
"The Yeoman's Wedding Song" (Fennia-towski).
"Glorious Devon" (German).
"The Battle Ewe" (Douglas).
- 10 p.m.—Second news bulletin supplied by courtesy of "The Daily News" Newspaper Coy.
- 10.30 p.m.—Close down.

7ZL, HOBART

MORNING SESSION.

- 11 a.m.—G.P.O. Clock Chimes. The "MERCURY" news, Shipping, Commercial intelligence, Weather information, Ships within Wireless range, Mail advice.
- 11.30 a.m.—Post Express information.
- 12 noon—G.P.O. Clock Chimes; close down.

AFTERNOON SESSION.

- 1 p.m.—G.P.O. Clock Chimes. Musical items from the Studio.
- 1.30 p.m.—Hobart Stock Exchange quotations.
- 1.55 p.m.—Weather information.
- 4 p.m.—G.P.O. Clock Chimes; close down.

EVENING SESSION.

- 7 p.m.—"CHILDREN'S CORNER," by "Aunt Stella."

NIGHT SESSION.

- 8 p.m.—G.P.O. Clock Chimes. The "MERCURY" special, Tasmanian news service, Railway auction, produce sales, Weather information.
- 8.5 p.m.—Hobart Stock Exchange quotations.
- 9.30 p.m.—Concert from the Studio:
Mrs. E. W. RILEY, L.A.B., contralto,
Miss DOROTHY NEWTON, contralto,
Miss BERYL SCOTLINE, soprano,
Miss RUTH LANK, L.A.B., pianist,
Mr. GEORGE MUIR, tenor.
- 9.15 p.m.—Tasmanian District Weather reports.
- 9.50 p.m.—The "MERCURY" special interstate news service, Weather synopsis, Station announcements, Ships within wireless range.
God Save the King.

THERE IS a touch of irony in the fact that composers do not always achieve fame by medium of their best work. Sir Arthur Sullivan wrote the great oratorio, "The Golden Legend," but his comic operas made his name universally known. Edward German, to a lesser degree, had the same experience. Perhaps, his great facility to write breezy melody is responsible. However, listeners to 4QG will find no fault with hearing his fine song "Rolling Down to Rio," rendered by a capable artist, Mr. James Geddes, who broadcasts from the studio on February 12.

MR. CLEMENT MAY, the well known Dickens entertainer, returns to the air on Monday, February 7, and on the same evening, Mr. Kerwin Maegraith, the clever young Adelaide caricaturist, will interpolate his sketches with humorous patter.

Improve Your Reception

Two things hurt! A car which will not start when filled with guests, and a radio set which entertains your friends with hum, buzz, or crackles. In both cases look to your battery.

Pure reception is the long-sought ideal of wireless. The strong clear flow of current which links the listener in continuously to the broadcasting station is a joy which is by no means general.

When the first wave of novelty and enthusiasm which marked the introduction of radio sets to Australia, had subsided, many sets were neglected or wholly discarded because of faults which could have been avoided. The hum and buzz from eliminators and the crackling from cheap dry batteries sorely tested the nerves of many owners.

To-day the old interest has returned and the use of wireless is expanding phenomenally. One reason for a new permanent condition of stability is the increasing understanding that perfect reception is an every-day possibility. Undoubtedly the finest guarantee available of ever-pleasing reception is that offered by the new 83X Rechargeable Philco B. Battery, which is also Dynamic—beginning its life from the day of purchase. This Philco battery displaces for ever the old 90-volt dry battery.

Not only does the Philco battery banish the hum, buzz and crackle of eliminators and cheap dry batteries, but it also offers op-

portunity for outstanding economies. The reason is not far to seek:

The dry battery wears out quickly—and painfully, in its last stages. It is thrown away perforce and another bought, with the same result.

On the other hand, the Philco 83X is Rechargeable and its life can be measured in years. When you have used it two hours a day for three to four months, it can be recharged for a few shillings at any garage and begins its work again with the same strength and freshness.

Thus in a very real sense, the first cost of a Philco is the last cost. Although, naturally, that first cost is higher than a dry battery, yet the result—spread over a single year—is a saving of pounds. With that absolute economy goes the much-desired flow of pure current, ensuring noiseless reception.

Moreover the Philco carries a built-in Charge Indicator which tells at a glance the exact condition of the battery and avoids all possibility of that sickening moment when the run-down dry battery suddenly ends its crackling existence without warning.

Give your set, your friends and yourself the privileges of modern wireless by ordering an 83X Philco.

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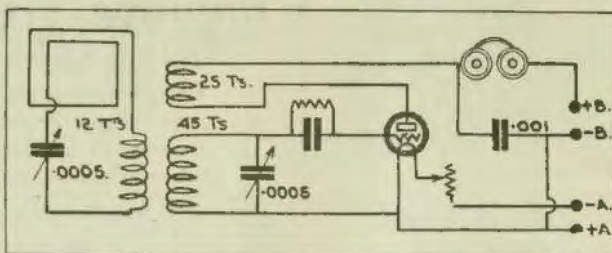
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WORLD

N.S.—4

S.B.

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 Thursday night. Replies will also appear in these columns.



A one-valve circuit to use with a loop aerial, published at the request of a reader.

B.T. (WEST MAITLAND).—Q: (1) What is your opinion of the 5 valve Browning-Drake?

A: (1) I really shouldn't draw comparisons between receivers, but the Browning-Drake is usually associated as a four valve receiver, that is, radio stage, detector stage and two transformer coupled audio stages. Sometimes the audio stages consist of resistances or impedances, hence three stages instead of two, thus making a five valve receiver. The Browning-Drake is recognized as a most excellent receiver, and will give good service.

A.R.J. (WOLLONGONG).—Q: I am 22 years of age and am a keen wireless enthusiast. Among the sets I have built is the Mareo Four Valve which, while it gives 2BL, 2FC, 2BL, and 4GZ at excellent speaker strength, does not receive 2BL, 2BL and 1YA. Can you account for this?

A: You haven't told me whether, when hearing 2FC, if the moving plates are all enclosed inside the fixed plates. This applies to all condensers. If such is the case, it becomes necessary to add a few more turns to the grid coils. If not, then look to the E. Battery, or the detector valve. Glad to hear from you. Best wishes.

Q.R.M. (BIRKBEANE).—Q: (1) I am living within two miles from 4GZ, would the Capacity Coupled One Valve stimulate this station?

A: I cannot tell you definitely, but this receiver and the Extrordinary One Valve, are the most sensitive sets I know.

Q: (2) Is this set as loud as any ordinary one valve?

A: (2) Yes.

Q: (3) Would the addition of audio frequency amplifiers alter its selectivity?

A: (3) No. Audio has nothing to do with selectivity.

Q: (4) Would coils wound on the low loss principle be any improvement?

A: (4) Stick to the specifications with coils, as well as condensers, unless you wish to experiment a bit yourself.

T.M. (BANKSTOWN).—Q: I have built a five valve Neutrodyne and can not get good reception from locals with the two radio quency valves lifted out, and the other stages with one R.F. valve lifted out. Will you please supply the necessary information to enable me to switch out one or both R.F. valves at will?

A: It is never advisable to switch R.F. —leaves green in. However, join the A-wire to earth and connect the aerial direct to grid wire of the detector valve with grid condenser in circuit for 3 valves and to grid wire of the 2nd R.F. valve for 4 valves.

H.O.P. (MARRICKVILLE).—Q: (1) I intend to build a Browning-Drake, and would like to know if the enclosed list of components is satisfactory?

A: (1) The parts you mentioned are quite in order, but use the 002 condenser.

Q: (2) Is it necessary to use the I.F. wave for local stations. If not please tell me how to cut out the I.F. wave.

A: (2) It is never wise to switch out R.F. valves as is explained to T.M. (Bankstown). Follow the layout given, and use a grid leak for controlling audio valve filament.

R.W. (NARRABREEN).—Q: Would you kindly publish a circuit of a single valve receiver, suitable for local conditions, using a loop aerial?

A: Sure, take a glance at Fig. 1, and there you will see a circuit to meet with all your requirements. This single valve receiver operates quite efficiently in local stations, and may be easily constructed if the following instructions are carefully followed.

The circuit is of the conventional primary, secondary and tickler type, that has proved itself to be of great value in many cases than one. The primary has twelve turns, the secondary forty-five, a quarter of an inch separates the two windings, both of which are wound with 22-gauge D.C.C. Use a 3-inch former for these two windings. The tickler consists of 25 turns on a two inch former, wound with 22 D.C.C. and mounted perpendicular on the end of the secondary. The 3 coil tuner is not unknown to most of us, therefore, no difficulty should be encountered here.

Tuning is accomplished by means of the two variable condensers and loop, the loop having a great directional effect. The station received will not be at its best until the loop is pointed right, towards it. Volume and oscillation is controlled by the rotating of the tickler coil. Use a large pick-up loop, cross-section being at least four feet in length and having about 12 turns. Never change the position of the primary winding, as the coupling effect between that and the secondary will be affected. We strongly recommend the use of a storage type valve for this receiver.

J.E. (WOY WOI).—Q: Would you kindly forward more particulars, regarding the type of receiver that you have in use.

F.W.R. (CENTRAL TILBA).—Q: I am desirous of changing my present three diode-receiver valves for three 12XB1A valves. Kindly let me know what size accumulator to use and how long, normally, would it remain charged with the use of these valves?

A: The accumulator should be as large as possible. We would suggest 4 volt, 60 amp, and with this particular use, four valves should last for, approximately, 96 hours, without a recharge to the accumulator.

H.D. (WILTON).—Q: Could I use my 15 plate condenser in lieu of the 0002 condensers specified in the Split Coil Single Valve Receiver described in the issue of January 19th?

A: We advise you to stick explicitly to the specifications given for that receiver.

AMIBOIS (CASINO).—Q: Reading "Wireless Weekly" of 29th October, I noticed the

excellent results obtained by Mr. John Hamilton, of Casino, using a six valve Stromberg-Garison Neutrodyne. Could you advise me as to where I could purchase a circuit of this receiver?

A: Kindly get in touch with L. P. R. Bean, of 229 Castlereagh-st., Sydney, to enquire concerning Stromberg-Garison. Mention this paper.

A.G. (PADDINGTON).—Q: I have a two valve set, and can get 2FC and 2BL very plain on the Loud Speaker, but 2RY and 2BE are very soft. Can you tell me what is wrong?

A: We can quite understand your trouble. You have obviously overlooked the fact that 2BL and 2FC have a far greater power than 2RY and 2BE, and that the latter stations will not come in with anything like the volume of the former.

E.R. (ROZELLE).—Q: (1) How would I wash out my four volt accumulator?

A: Firstly, call on a reliable battery service station and procure the required quantity of the correct specific gravity sulphuric acid. Then charge your accumulator until a full charge is registered, then tip out acid and fill accumulator half full with distilled water. Shake thoroughly, until you are satisfied that the plates should be clean. Then empty out this water and rinse with a little more distilled water. Fill accumulator with the new acid and charge up again. Always wear old clothes during this process and wash out the accumulator out of doors, otherwise if any acid is spilled on your clothes or on the carpet, dire consequences will be the result. If as any time you do drop acid on your clothes, rush the milk can and saturate the spot with milk.

Q: (2) What materials should I get to add a stage of audio to the three coil regenerative receiver?

A: (2) Associated with the three coil regenerative receiver are two stages of audio already, and it is not wise to add a third stage of audio.

C.P.M. (BIRKBEANE, Q.).—Q: (1) In the Split Coil Single Valve Receiver of the 11/27, is mentioned a Mildred Condenser and a variable grid leak. What is the capacity of the condenser and also what is the value of the variable grid leak?

A: (1) The condenser is approximately 0.001 microfarad capacity and may be either a Pilot or an Advance. The grid leak is variable from 3 to 5 megohms, and may be a Bradley leak or a Lissen. We have no calculator.

D.G. (CROYDON PARK).—Q: On a Howell Reinartz (one valve) local stations come in very loudly, but there is no sign of interstate. The aerial is 60 feet long, with a 15 foot lead. Should the aerial be lengthened would interstate reception be possible?

A: No. The aerial is long enough. Tuning is perhaps the main difficulty. Master it. Don't forget that summer conditions are not too good for long distance work.

D.B.C. (CONCORD).—Q: Are "National" accessories available in Sydney?

A: I don't know of any. Why not buy Australian-made goods?

M.W. (BURSTVILLE).—Q: (1) Re Accumulator B battery. I cannot get pure aluminium for the rectifier, will 95 per cent. aluminium do?

A: (1) Yes.

Q: (2) I have some commercial sulphuric acid which I am breaking down with tap water. Will this answer the purpose?

A: (2) Don't break the acid down with tap water. Use distilled water.

Q: (3) I purchased sheet lead 3/8 in. a 14in., which weighs 2-lbs., will this do?

A: (3) Yes.

N.F.H. (NORTH SYDNEY).—Q: I have recently added an extra stage of audio to my one valve reflex set, and I am now troubled with a high pitched whistle. Can you locate this for me?


A: Invariably this high pitched whistle is the result of using two different makes of transformers. To overcome it, reverse the connections of the primary of one of the transformers.

F.M. (ABBOTSFORD).—Q: (1) I am going to build a Neutrodyne, and I have 1,000 variable condenser and 1,000 variable condenser. Could I use these with 1,000 condenser?

A: (1) You could, but you would lose all the best features of the Neutrodyne, i.e., ease of tuning. Searching for distant stations would be a very heavy task, too difficult in fact. Why not get three matched condensers, all the one size, and of the same brand. It will be better than.

Q: (2) I have two different ratio transformers, one 4 to 1, and one 2 1/2 to 1. Which will I put first in the circuit?

A: (2) It is always standard practice to place the higher ratio transformer first, with the smaller ratio in the second stage. If placed close together, turn one at right angles to the other. Should a high pitched whistle result, reverse one of the primary connections.



WIRELESS WEEKLY

Registered Trade-Mark.

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Cut Prices, Slander, Hearsay, Habit, may cause you to buy other Valves, BUT—

for the sake of your sanity and best results

Buy De Forest Valves

and have no regrets.

For Sale Everywhere



D.V.5
Filament 5 volts
25 amp.
12/~



D.V.3
Filament 3 volts
.05 amp.
13/6

De Forest Valves

TYPE D.V.5—Takes 5 volts at 4-amp. on filament 12/~ each
Plate Voltages, Detector, 15-22 1/2 volts.

Plate Voltages, Amplifier, 60-150 volts.

TYPE D.V.3—Takes 3 volts at .05 of an amp. on filament.
—13/6 each

Plate Voltage, 10-22 1/2 volts, Detector.

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

Both Types fit Standard American Socket.

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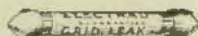
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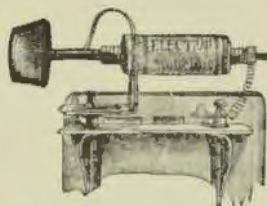
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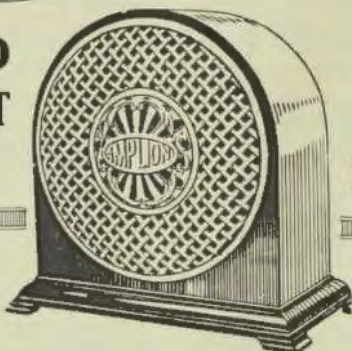
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