

# WIRELESS WEEKLY

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Friday, Oct. 8, 1926.



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Captain Frank Hurley  
T. W. Bearup on Fading

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# WIRELESS WEEKLY

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OCTOBER 8, 1926.

## Relay Stations Next

**B**BROADCASTING in N.S.W. has never fully recovered from the blow struck by the sealed set. The high wavelength substituted by the promoters of the sealed set prevented what might have been the speedy recovery of a healthy youngster.

The resulting wide range of wavelengths demanding a specially constructed receiver caused endless trouble. Imported sets were useless for wavelengths over 600 metres, and in the endeavour to establish a new Australian industry to meet this demand the experience of older countries was disregarded.

Selectivity is not possible on a moderately priced receiver, with a wavelength range of 200 to 2000 metres. When the lower wavelengths began to fill with smaller stations, interference was rife, despite well-spaced wavelengths. Listeners-in were dissatisfied, and broadcasting languished in N.S.W.

Meanwhile, 3LO, benefitting by 2FC's experience, reduced its wavelength, while radio was in its infancy in that State. Rather late the mistake was realised and remedied in N.S.W., but instead of a fresh, enthusiastic body of listeners-in, 2FC now has an ex-

perienced listener somewhat cynical towards broadcast reception.

It is easy to analyse what has happened. We would like to think now that our troubles are past, and that broadcasting in N.S.W. has only a progressive future in store. Looking forward, it is apparent that the next step in the development of radio in Australia is a relay system.

Captain P. P. Eckersley, acknowledged to be the foremost radio engineer in Europe, holds that enjoyable reception is only consistent within a radius of 100 miles of a broadcaster. European conditions differ from those in Australia in many aspects, but, accepting this statement as a basis for argument, we should need three relay stations in N.S.W.

The most suitable centres for such stations are Hay, in the Riverina country and far west, Orange, in the mountain district, where reception is erratic, and Armidale in the north. These stations would cover all the thickly populated districts of N.S.W. The far outback would not be covered, but the few listeners-in in this area would not justify the expense of stations. Broken Hill will probably have its own station shortly.

Scott Sanders, the well-known Scotch comedian, is seen on our cover this week. He broadcast for the first time in Australia at 2FC on Monday.

# Between You and Me and the Microphone

Conducted by

R. E. CORDER

**A** WELL-KNOWN BLO entertainer, who sings "Tea for Two," as though he meant it, which he doesn't, recently received a letter containing two small packets of tea and an address. He is now searching music catalogues for a song about bank notes.

CONTAINED in the N.Z. Public Works Estimates for lighthouses and harbour works for 1926-27 is a radio direction-finding beacon for Lyttelton Harbour, estimated to cost £1500.

THE NEW government radio station at Garambi, Japan, is now exchanging messages with Hongkong, South China, the Philippines and South Sea stations.



"Father, I wish you'd punish Willie. He's been such a bad boy. He wouldn't come in when I called him, he was impudent, he threw a stone through the cellar window, and he—"

"Oh, come, come! We mustn't be too hard on the boy. It's just youthful spirits."

FIRE CHIEF Harrie B. Lee, of Melbourne, has recruited radio to ranks of his fire-fighting forces. All fire engines are to be equipped with radio sets, so that the officer in charge at a fire can communicate direct with Headquarters for assistance. The homes of all the head officers of fire districts have already been supplied with sets.

THERE are nearly 1,000,000 radio sets on farms in the United States. In some States, there are radio sets on 25 to 40 per cent. of all farms. Estimates made by the U.S. Department of Agriculture in 1923 showed 145,000 sets in use on farms at that time; 365,600 in 1924, and 553,800 sets early in 1925.

THERE'S one thing about the wireless talks on fashions—they don't need to be very long.

A SUBURBAN listener complains that he was unable to get "Carmen" on his valve set. Perhaps he will succeed next time, if he tries a better conductor.

MR. SCOTT ALEXANDER has produced more than 50 comedies and dramas from 2FC. He is at present in N.Z., playing the role of the sea-captain in "White Cargo."

THE RADIO paradise of the world is Bude, in Cornwall, England, where American stations are continuously received and where Continental broadcasters are heard with the loudest and clearest of volume even in summer.



"And he was looking with one of the new valves in your radio set."  
"WHAT?"

THE workers in a North Sydney laundry have wireless whilst they are at work. Perhaps this is how they get that atmospheric effect on the edge of the starched collars.

REMARKABLE long-distance reception is reported by the wireless officer on the "Hobsons Bay," using a standard P1 one valve set on a recent voyage. When the vessel was in the Australian Bight, all Australian stations were received during the day, while at night reception was effected from Honolulu, Japan, Manila, Hongkong, Madras, Colombo, Aden, Java, Singapore, Lorenzo Marques (East Africa), New Zealand, and Suva.

CRITICS are saying that some of the items in the 2FC programmes are too sluggish. If they are thinking of Redgrum's talk on "The week's work in the garden" that certainly is a sluggish topic.

A BRUSSELS court has decided that the air above State property belongs to the State, and that a person cannot, therefore, erect an aerial stretching across State property.

A SHORT WAVE station was recently set up in the Mareconi School in Tokio with surprisingly successful results. Reports were received from Canada and California, Italy, Russia, and Australia. The station broadcasts on a 35 metre wave length every evening. Now you ham!

GERMANY is manufacturing considerable radio apparatus, and exported 3,123 metric tons in 1925, an increase of about eighty-five per cent. over the exports in the previous year. The goods appear to be going chiefly to Great Britain, although Japan is now purchasing some apparatus. The total value of radio exports last year was £1,407,540, a gain of over £473,200 over the 1924 figures.



"Let me at him!"

AT THE race track at Grunwald near Berlin, one of the most famous race tracks in Europe, radio sets have been installed recently for communication between the judges' stand and other parts of the track. The transmitters and receivers are adjustable to any wavelength between 200 and 1,000 metres. Some of the outfits are portable so that temporary stations can be set up anywhere in a short time.





## "Wire Music, Him Belong God"

I VOW that never again will I go adventuring into wild and isolated corners of the world without taking a complete radio equipment with me. During my recent expedition to Torres Straits and New Guinea, radio not only assisted directly the welfare of my party, but, indirectly, was a factor in bringing the plans of the expedition to a successful issue.

I know too well the mental hunger one develops for social intercourse, and the yearning for the diversions of civilization, when isolated in desolate places for a protracted period. I have come to the conclusion that radio is almost as necessary for the mental relaxation of those whose duties carry them into such places, as good, wholesome food is to the body.

I can remember as far back as 1911, as a member of Sir Douglas Mawson's Antarctic expedition, the tremendous value of the small Tele-

*By Capt. Frank Hurley*

funken set supplied to the expedition by Amalgamated Wireless. Walter Hannam was in charge of the apparatus, which was then looked upon as a doubtful experiment.

During the long, dreary hours of the Polar night, when confined to our hut for many weeks on end, what a source of entertainment and diversion we had by listening-in! With what keen expectations we waited, night after night, as Hannam strained to catch the faintest signal from the outside world! With what joy we hailed the first, feeble signals! The Telefunken set eventually proved not only a boon in breaking down the barriers of isolation, but was of inestimable value in transmitting meteorological reports and other scientific data. What almost unbelievable developments have taken place in radio since those days!

Mr. Carroll, of New Systems Telephones, suggested that I should take a superheterodyne set with me on my last expedition. I admit I knew little about this type of instrument, but, as Mawson did, I fully realised the immense advantages to be gained if the experiment worked. I might mention that with my first expedition to New Guinea, four years ago, I also carried a Telefunken set, which enabled me to maintain constant communication with Sydney.

I was astonished at the compactness and portability of the instrument. The superheterodyne, complete with accumulators and batteries, could readily be transported by two native carriers. On the voyage up to Thursday Island, I gave the gear a thorough test. Suffice to say, the passengers and ship's party were extremely sorry when I disembarked at Thursday Island, for the set, a source of many jovial evening's entertainment, went with me.



Our contributor, Captain Frank Hurley, who has just returned from Torres Straits and New Guinea, where he filmed "The Hounds of the Deep." His travel talks have created a sensation at 2FC.

Adventures were to come speedily and unexpectedly. All aboard a pearling lugger we set sail for Mabuting Island, some 60 miles from "T.L." and with a stiff blow and a choppy sea running, we shipped a good deal of water. To protract the experience, our mailbag carried away, and by the time we neared our destination, darkness had fallen. Mabuting Island is surrounded with a maze of coral reefs, and despite the intimate local sea-knowledge of my native crew, we grounded with great force, qualms, and sickening sensations. Running on a coral shoal was a new experience to my picture artists, who hitherto had scarcely ventured beyond the confines of the studios. It was rather unfortunate that the mishap occurred at night, as one of my film dramas involved a lugger being wrecked on a reef. The hero, however, was saved the annoyance of rescuing the heroine in actuality, as the leak we sprung was readily kept under by the pump. With the rising tide, we floated off some hours later, and reached our destination without further excitement.

Camp was made and the equipment and stores discharged. I discovered,

to my dismay, that the battery box, containing the batteries and accumulators, supplied by Mr. Carroll, was under water. It seemed that my hopes for radio reception were to be foiled at the outset. I could readily recharge the accumulators, as I had brought a small hand-driven dynamo for the purpose. There were plenty of natives at Mabuting to keep the handle turning! The batteries seemed perfectly watertight, but I knew that there must have been a steady discharge taking place across the terminals during their immersion.

After the party was settled down, and routine work was in progress, I decided to erect and test the outfit, forlorn hope though it seemed. There was no scarcity of aerial poles, tall cocoanuts standing over 60 feet in height, were ideal. When I explained to the natives that the small, brown box was going to bring talk and music to them from the white man's world, I was greeted with uproarious laughter.

I set Marico, my head boy, to sink a well till he came to water. We were rumped a short distance inland from the beach—and this meant digging a shaft fifteen feet deep, to Marico, an

The pearling lugger mentioned is seen on the right. Below is the bay at Thursday Island.

extremely stupid procedure. Phineasa scaled up the cocoanuts, and made the aerial fast. By the time this was done, Marico had reached water. An earth wire soldered to a benzine tin, lowered down the hole and buried, made a splendid earth. That evening I felt as much excited as when we made our first wireless test in the Antarctic, many years ago. It was only a matter of setting the dials, and the announcer's voice came through.

"This is 4QG, Brisbane, the Queensland Radio Service," we heard as clearly and distinctly through the air as though I had been alongside him. All the village folks, some 500 natives, had rolled up for the occasion, and I ascended to an even higher flight in their estimation, than when I visited them in a flying machine three years previously.

(Continued on page 45)





# Clearing the Air about Fading Phenomena

*A clear non-technical statement of the few facts we know about fading by a radio engineer who has studied broadcasting in every part of the world. As studio manager of 3LO he led the recent expedition which investigated fading conditions in Gippsland*

*By T. W. Bearup*

THE word that is being worked overtime these days by radio enthusiasts is fading. A little while ago the popular subject was selectivity; and before that it was low-loss. About a year ago it was wavelength, before that it was the sealed set. But in the dark and distant days of the sealed set we didn't have so many wireless fans. It is curious how these words have formed the subject of articles in the papers and have been the main topic of discussion in the restaurants. It is not improbable also, that the subjects discussed are but superficially understood. That is not to be wondered at when we consider the newness of the technique of wireless and the changes that have followed one another so rapidly.

One has barely got to the fundamentals of a new method, theory or circuit, when another step forward—or aside—is made and although some of these steps do not advance us very much, we must perforce study them lest we be left in the rear. There is one danger in talking too glibly of these subjects. One is apt to influence opinions improperly or carelessly formed that lead to remarks and criticism which are unfair. That danger in discussing the subject of fading is very evident at the present time in the number and variety of comments we hear of or read concerning the transmissions from our broadcasting stations. Of course, we must not overlook the fact that the percentage of criticisms is really extremely small.

Someone writes to the daily papers making wild or careless remarks about the transmission from 3LO. That letter is followed up by another a day or so after. And yet there are people who really think that such isolated and perhaps irresponsible opinions represent the



## Summarised report of the Fading Expedition

**YALLOURN, Sept. 9:** *Sunset signals muffled. Quick short fades about twice a minute, each fall about five seconds at one third of usual strength. Fading worst at 7 p.m., gone at 8.30 p.m. Distortion of 2BL and 5CL at 10.30 p.m. 4QG and 2FC clear and steady throughout.*

**BAINSDALE, Sept. 10:** *From sunset until 10.20 p.m. not more than a few words from 3LO intelligible. Fades about two seconds every quarter minute. Distortion at 10.45 p.m., but clear at 11.15 p.m. and 2FC and 4QG clear and constant.*

**ORROST, Sept. 11:** *Conditions better here. Signals rising and falling in intensity without distortion. 5CL fading at long regular intervals. 2BL distorted at 10.30 p.m. 2FC slight fading. 3LO distorted at intervals. 4QG clear and steady.*

**SALE, Sept. 12:** *Fading and distortion as at Bairnsdale. 2BL clear, no distortion, 5CL weak, 4QG clear, but later erratic, 2FC clear and steady without fading or distortion.*

**PORT ALBERT, Sept. 13:** *3LO reception worst throughout test, distortion great. 5CL steady, 2BL and 4QG steady and clear with slight fading.*

view of a majority of the listeners. Obviously such a conclusion is far from truth. It is impossible for

3LO, or for any other station for that matter, to escape criticism; broadcasting is so young and is so intimate an affair that it must be discussed, even if immaturely, by a number of listeners.

But, as fading is the latest subject for these critics, it is well to clear the air a bit as to the real position of the matter. We frequently read of fading as if it is a peculiarly Australian evil; and indeed, there are some people who can confidently and cocksurely account for its existence in the defects of the station's design or operation.

Far be it from me to attempt to create the impression that fading does not exist, and that all the criticisms are moonshine. (That is not a bad pun, really, although an unconscious one; for if some of our young scientists study this subject of fading a little deeper, they will find that the moon has a definite influence on the occurrence of the annoying phenomenon). Fading in wireless transmission—or rather reception—is, like the poor, always with us. Its intensity and characteristics vary in different localities, in different seasons, with night and day and with different wavelengths.

Expressed shortly, fading is experienced in every country where broadcasting is being conducted. And there is no cure for it. Mainly because the cause of the phenomenon is not definitely known. Its effects are fairly well known, but like atmospheric—the other big hubble of wireless reception—owing to the absence of scientific knowledge of the cause of the interference, a reliable cure cannot be prescribed.

Anyone who reads the more reliable literature of wireless, even if he has no technical grasp of the technical fundamentals of wireless, will learn that fading is a serious

obstacle to good and consistent reception in some parts of every country. He will also note that competent authorities and experts have been tackling the baffling problem for a long time. Yet there is no reliable method of freeing the listener from the annoying effects. There are several theories as to the cause; but these are merely theories that are incapable of proof or demonstration.

The favourite one nowadays (there may be a different one propounded any day) is founded on the belief that a layer of gases surrounds the earth and the surface (next the earth) of this layer is continually shifting. It is supposed that the wave motion which conveys the electro-magnetic energy containing the power to influence our aërial and receiver, starts from the transmitting aërial in two directions. One direction is practically vertical and the other horizontal, or at all events parallel with the surface of the earth. Each of the radiations, vertical and horizontal, con-

tains the energy to excite receiving aërials. The horizontal form of radiation or wave gradually diminishes or peters out at a distance from the transmitting aërial governed by the power put into that aërial and also governed by the frequency or wavelength. Thus a wave may start off from the station in great strength and gradually weakens in strength until at a distance of, let us say, 100 miles, it is so attenuated or weakened that its energy is sufficient only to influence a very sensitive receiving system. Thus, while a crystal receiver will be capable of intercepting the energy strongly at a distance of five miles, it will require a very efficient aërial system and receiving set to produce any effect at the hundred miles point.

The vertical form of radiation, however, does not behave in such a rational manner. It shoots up into the upper atmosphere, but its nocturnal behaviour is quite different from its daytime methods. In daytime its

passage upward is limited, and it apparently peters out quite early. It is supposed that the sun's rays act as a fog to the electro-magnetic rays of radiation and like a ray of light in a fog, it does not penetrate far. At night, when that electric fog caused by the sun is missing, the path of the wave is not obstructed until it meets the layer of gases that surround the earth—called the Heaviside layer, after the English physicist who propounded the theory. When the wave strikes the layer it rebounds, is reflected back to the earth. When it gets back to earth its trouble commences.

The two waves, vertical and horizontal started off from the transmitting aërial in step or in phase. When the vertical wave reflected from the Heaviside layer gets back to earth and joins the horizontal wave, all will be well for the listener, if the two waves are still in step. But more often than not, the vertical wave in its rebound is not in step when it joins the horizontal or ground wave. If the two waves are in step, the energy affecting the receiving aërials in that locality is increased and good strong signals are intercepted. If not in step, the signals (that is the speech or music) are weakened or distorted; the degree of weakening or distortion varying according to the extent of out-of-step between the two waves.

If the vertical (reflected) wave reaches the earth at a point further than the point of 100 miles we arbitrarily fixed for purposes of illustration, the distortion will not be noticed, because there is only one wave affecting the receiving aërial. But there is likely to be fading; that is, loss of signals as distinct from distortion of them. The reflected wave leaves the surface of the Heaviside layer at different points owing to the movement of that cloudy surface, and thus the point where the wave strikes the earth varies in the extent or magnitude of the power to affect an aërial. And this variation of the reflection with consequent alteration of signal strength, or field strength as it is technically called, causes the received energy to vary in strength. Thus the music gradually disappears and comes on again.

(Continued on Page 49.)

### WHAT THE EXPEDITION FOUND

*Below is the official summary attached to the report on fading conditions in Gippsland, submitted by the three members of the 3LO expedition, Mr. T. W. Bourup, Mr. H. Johnston, and Mr. W. Conry.*

In all cases the loop directions were found to be normal. The same comparative results were obtained with all sets whether using aërial and earth system or frame aërial. It is a significant fact that, in every town visited where distortion was in evidence, local listeners informed us that distortion of 3LO had first appeared about Easter time, i.e., towards the beginning of winter.

No evidence of mountain fading was found and this was confirmed by inquiries from constant listeners in the places visited. In cases of fading checks were made to ascertain whether this was due to frequency change, but in no case was this found.

No connection was found to exist between the fading of the various stations—each one being quite independent of the other. It was found that as a general rule, 4QG was the most popular station for night reception. Although

2FC could generally be heard satisfactorily a great number of the sets in use were neutrodyne and superheterodynes which were not capable of being tuned to the longer wavelength.

While 4QG is received so clearly in Gippsland, the same trouble is experienced by listeners closer to that station as is now being felt by 3LO listeners in Gippsland. Whereas, in Queensland, 3LO's signals are reported to be almost perfect, both as regards strength and clarity. At the present time listeners in Gippsland with effective receivers, are able to get good service from 3LO during daylight hours; but after sunset, it is necessary to look to the Interstate stations for entertainment. At this period of the year, atmospheric disturbances are at a minimum, but with the approach of summer, it will become increasingly difficult to receive these distant stations.





Kerwin Maegraith has some new ideas for brightening 2FC's Studios

BURGESS—"THE STANDARD IGNITION—TELEPHONE"—BATTERIES

## 3LO Experiments with Sound and Studios

THAT it is the business of a broadcasting company to do all that is possible to improve the service to its listeners is recognized by 3LO, Melbourne. Not only has the company sent its engineers to different parts of the country to investigate the receiving conditions and see what can be done to improve the reception, but the company has recently tried a new studio with the object of endeavouring to improve the broadcasting at its source. It is the largest studio in the southern hemisphere, if not in the world. Experiments are in hand to determine the usefulness or otherwise of draping the walls and covering the floor. Although these experiments have not been carried on to their limit, there is already noticeable a decided improvement in many items—particularly the band renditions. There is more "room-tone" or atmosphere about the items such as one is accustomed to in listening to music in a hall.

These activities of 3LO in the interests of listeners so as to improve re-



Hugh Steyne, laughtermaker of "Tell Me More," who broadcast from 3LO recently.

ception suggest some thoughts on the quality of reproduction of music in broadcasting generally. It is admitted that the reproduction in the loud speakers of several classes of music is not perfect—far from it. Where does the trouble lie? It does not all rest with the broadcasting station. There is a long chain containing many weak links between the orchestra in the studio and the loud speaker.

The sound collecting device in the studio—the microphone—though a remarkably efficient instrument in many respects, cannot be expected to collect and pass on all the complicated wave forms of the symphonies of an orchestra. The vibrations of such music may vary from 100 to 5000 per second. Yet the microphone is expected to pick up all of them with equal fidelity and pass them on to the amplifier. The studio microphone has been designed to do that as far as it is possible to do so, but of itself it cannot do it and an amplifying or boosting equipment is necessary in addition. The microphone is purposely made inefficient, in comparison with the ordinary telephone microphone; it is about one hundred times less efficient or sensitive. The object of doing that is to ensure that all the various notes will be collected equally and none emphasised unduly in relation to the others. It does that fairly well.

With correct "placing" of the microphone in relation to the voices or musical instruments, the notes will all be picked up. The vibrations caused by these notes have to be changed into electrical vibrations and passed on to the broadcasting station through an amplifier and the connecting telephone line. The amplifier is a complicated instrument which in capable hands is able to make up some of the deficiencies of the microphone. Low notes that are too low



Colin Thompson, in whom 3LO claims to have discovered a remarkable voice.

can be made louder; high notes that are unduly high or not high enough can be straightened up with reasonable satisfaction. To do this properly the engineer controlling the amplifier manifestly should be able to appreciate the niceties of music thoroughly—he should be a musician as well as a radio man.

Before the output from the amplifier is sent over the telephone line to the broadcasting station, the volume of current must be such that it will not disturb telephone subscribers' lines in the same cable, and yet it must be strong enough to drown any noises that are picked up in the cable. This necessitates a careful balancing or equalizing of the line at both ends or noises and distortion will be picked. It is practically impossible to eliminate all the faults, but a very good job is made of keeping the current carrying the musical vibrations as pure as possible.

At the broadcasting station the chances of introducing distortion are numerous, and the difficulties in the way of preventing distortion very great. By careful attention to design and constant attention to the complicated equipment by competent

(Continued on Page 53.)



# Studio Notes and News

## RADIO HISTORY.

Broadcasting will play an important part in the historic functions at Canberra on October 11 and 12. On the former day the Marquis of Salisbury, on behalf of the House of Lords, will hand over the Speaker's chair for the new Commonwealth Parliament House. This ceremony will be broadcast by 2FC. On Tuesday, October 12, the Empire delegation will be entertained at an official "at home" at Canberra and the music for the evening will be broadcast from Sydney, being picked up on loud speakers at the scene of the festivities. A feature of the evening will be national choral numbers in praise of Australia, Canada, Scotland, Wales, Ireland, and other parts of the Empire. Scot Sanders, the Scottish humorist, will also be heard by radio for the first time before leaving for London.

## TALKS FOR BOYS.

A series of talks that will be followed eagerly by "boys" of all ages—and girls, too, for that matter—has been arranged by the 3LO with Mr. E. C. H. Taylor, who, in addition to being the secretary of the associated public schools, is the popular "footer" coach of the Melbourne Grammar School.

## RADIO BOYS' CHOIR.

The boys' choir being organised by Mrs. McIntosh, of Bondi, on behalf of 2FL, now numbers 27 voices. Their quality is already known to listeners, as they have been heard singing hymns during the children's services on Sunday evenings. Mrs. McIntosh is weeding out a few and strengthening the party before the lads are counted thoroughly qualified.

## "HELLO MAN'S" SESSIONS.

So popular has become the "Hello Man's" session for older boys and girls that alteration in the times for the earlier session is suggested. The proposed new times are: 5.45 p.m., Talks to the younger ones; 6.30 p.m., Story for the older ones; 6.45 p.m., Dinner Orchestra; 7.15 p.m., Usual news session.

## GREAT SNAKES.

When the Rev. F. H. Raward, whose interesting natural history talks are featured from 2FC, sent in this title for his next talk, it made the studio manager realise how versatile Mr Raward must be. He has first hand knowledge of Australia, as indicated by his talks on camels, ostriches and emus have been most interesting. Mr. Raward has a talk on mosquitoes ready for early delivery.

*Kerwin Macgrath, young Australian caricaturist, who is preparing a series of talks from 2FC. He contributes some original ideas for brightening the 2FC studio on page 9.*



Miss Monica A. Horder, 2GB's violinist.

## "ROSE MARIE."

Act II. of "Rose Marie" will be broadcast by 2FC on October 8. The transmission will be preceded by a talk by Miss Harriet Bennett from her dressing room.

## RIFLEMEN'S SERVICE.

The National Rifle Association's special service, conducted by the Bishop of Goulburn, at Liverpool Camp on October 10, will be broadcast by 2FC. Special band music and items by St. Luke's Choir will be transmitted.

## SWEET VOICED DULCITONE.

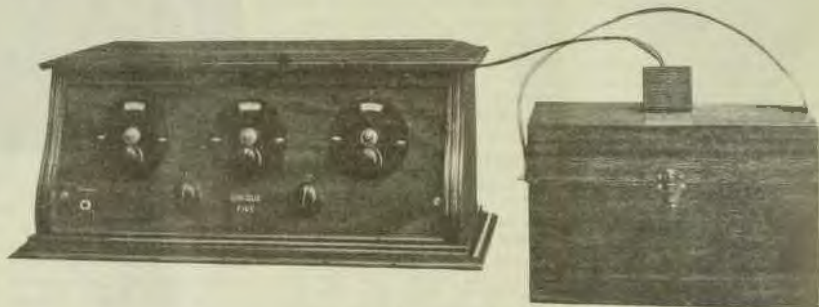
At the request of listeners, 2FC has arranged for further items to be played by Madame Evelyn Greig on the sweet-voiced Dulcitone. She will collaborate with Madame Vera Tasma, soprano, in a special programme, on Sunday, October 17.

## SYDNEY'S "BIG BEN."

2FC will now take their time signals from Sydney's Post Office, a line having been run to Challis House, which is right opposite the Post Office, by arrangement with the University authorities. Taking advantage of the 2FC system of dual transmission, the striking of the chimes is very cleverly worked. At any moment during the rendering of an item, from the studio or outside, it is possible to place the chimes on the air at the same time, forming an effective background. This avoids the necessity of crossing over, and coming back to the item being given, which means saving a wait of two minutes or more.



# Ambitions Realised in the MINGAY'S "UNIQUE 5"



## AN AUSTRALIAN PRODUCT.

The manufacturing of Radio Sets in Australia was formerly an experiment resulting in the production of sets that either would not work, were full of distortion or squeals, hard to tune-in, or easily went out of order.

To-day, after many years of experience under practical conditions, and a realisation of the many shortcomings existing in the Sets of the past, the building of Radio Sets has become a science, and the "UNIQUE 5" represents the very best in Radio designing, engineering and production methods. We can now offer you an excellent Five Valve Set at a very reasonable price to sell on terms.

Its many features are unique, hence the name. The results leave nothing to be desired and the obtaining of those results is very easy. The set consists of two stages of balanced radio frequency, detector, and two audio stages. The cabinet is large and of an attractive design. MINGAY "UNIQUE" RADIO SETS.

The "UNIQUE 5" and its Battery Box has been designed with the idea of making it the easiest selling Radio set on the Australian market.

The wonderful appeal that the "UNIQUE 5" makes to the average person, especially women, enables the machine to be sold with a minimum of time and expense.

It is essential that the installation of a radio set be as simple as possible. The "UNIQUE 5" is simplicity itself, and presents no trouble to the average person. No multiplicity of terminals to confuse the user, no necessity for pieces of wire to be connected from the set to the batteries, no untidy battery con-

nections, the Aerial, Earth and Battery wires are all incorporated in one complete cable leading from the set to the Battery Box.

### Battery Box.

This Battery Box is unique in many ways. The plug on the end of the cable simply plugs into the socket on the top of the box, which automatically connects all batteries together with aerial and earth to the set.

The Aerial lead-in is connected to the A terminal on top of the box. Three terminals are fitted, No. 1 being for a short aerial, and No. 2 for a long aerial. Either terminal can be tried for best results. The third terminal is for the earth connection.

Inside is space provision for two 45 volt Columbia or Burgess batteries and for an "A" battery of accumulators or dry cells, or eliminator, depending on the type of valves used. The "C" battery is fitted inside the cabinet.

The batteries are all connected up inside the box prior to being dispatched to the customer, thus enabling all connections to be made quickly and simply.

The Box itself is well constructed and dove-tailed Walnut Colored Container, fitted with a carrying handle.

### Selectivity.

The "UNIQUE 5" has been tried out under extreme conditions and on a large outside aerial selectivity is very good. 3LO, 4QC, 5CL, 3AR, 2GB and 2KY is obtained without interference.

### Distance.

In order to prove the pulling power and extreme efficiency of the

"UNIQUE 5" each set is tested on an inside aerial and all stations received at good loud speaker strength.

### Tonal Quality.

Careful design and use of quality apparatus has enabled reproduction of very fine tonal quality to be a great feature of the "UNIQUE 5." Adjustment of the tone is possible by the Tone Control Knob.

### Ease of Operation.

This is the keynote of the "UNIQUE 5." To reduce selling costs, a Radio Set must be easy to operate. The tuning dials all read the same. Volume is controlled by one knob and tone by the other. There are no other controls. The insertion of the plug brings the set into action, and no adjustments are necessary. The vernier dial windows allow for the stations to be recorded, so that future reception of that station is simple.

### Absence of Unsightly External Wires.

Hitherto the practice has been to have terminals fitted in the set and connected by pieces of wire to the batteries, etc., but in the "UNIQUE 5" this is eliminated, the connections being made by one well made cable, which is plugged straight into the battery box.

### Absence of Untidy Internal Wiring.

The very latest practice of sub-panel construction has been incorporated in the "UNIQUE 5." The internal wiring is all done under the sub-panel and is out of sight. This prevents any damage from bare wire shorting, etc.



**Interchangeable Valves.**

The set is so designed that 201A or dry cell valves, such as B406, etc., can be used.

**Panel.**

Following the style of the latest imported sets, the beautifully finished sloping panel of well-seasoned 5-ply wood harmonises with the color scheme of the cabinet and is pronounced by all who see it to be a great improvement. The black vernier Control Dials form a pleasing contrast to the Walnut colored panel. The engraving on the panel completes a job that reflects careful attention to appearances. The sloping panel allows for ease of handling.

**General Design.**

It must be acknowledged that the general design, together with the pleasing lines and color of the cabinet, make the whole arrangement very attractive indeed.

**Instruction and Calibration Chart.**

Inside the lid is a card illustrating the method of connection, the erection of the aerial, the settings for the dials as tested and other information.

**Standardisation.**

Realising the necessity and demand for a good radio set capable of doing all that is asked of it, and at a price and on terms within the reach of the multitude rather than the few, we have organised our factory to produce only standard sets. To-day is the day of specialisation. The mechanic of yesterday assembled and built the whole set. To-day the man who fits the condensers to the panel does not solder the wires on to the socket. The number of operations per person is cut down to a minimum and so efficiency is obtained together with quantity production. We are equipped to produce hundreds

of sets per week, and are already producing more sets per day than any manufacturer we know of.

**Guarantee.**

The fullest confidence in our products enables us to guarantee the "UNIQUE 5" for 12 months. It is sealed in such a way that the wiring and internal mechanism cannot be interfered with in any way without breaking the seal. We guarantee the set itself in every direction. It is practically fool proof. We can not conceive how any person can do any harm to it, so that if the set will not work (providing the valves and batteries, etc., are O.K.), we guarantee to repair it if it is sent to our factory or through our dealer. If the set is faulty we will pay the return freight.

**Prices.**

"UNIQUE 5," complete with all high grade accessories, including Loud Speaker, Aerial Equipment, dry "A," "B" and "C" Batteries, in handsome polished box as one unit, Valves, etc. .... £34

"UNIQUE 5," complete with all high grade accessories, including Loud Speaker, Aerial Equipment, Accumulator, "B" and "C" Batteries in handsome polished box as one unit, Valves, etc. .... £39

**PORTABLE "UNIQUE 5."**

This coming Summer is going to be a Radio Summer.

The "UNIQUE PORTABLE" is now nearing completion, and will be a fine job. It is going to be the best selling radio set on the Australian market this Summer. Prices are as follows:—

"UNIQUE 5 PORTABLE" with vernier dials and built in loud speaker (no other accessories) ..... £29

"UNIQUE 5 PORTABLE" complete with all equipment and built in loud speaker ..... £40

**UNIQUE 8 SUPER HETERODYNE**

Made under License.

Final developments of our "UNIQUE 8" are now in progress. It promises to be something new in the way of Supers. Our experience in this direction has enabled us to put out a set, second to none and superior to most. Further details will be supplied later. Prices will be, approximately:—

"UNIQUE 8" Super-Heterodyne Table Model, £75 complete with Speaker.

"UNIQUE 8" Super-Heterodyne Portable, £77 complete with speaker. "UNIQUE 8" Super-Heterodyne Console Models, complete with valves, "A" battery and Charger, "B" Battery Eliminator, "C" Battery, Big Cone Loud Speaker and loop ..... £135  
"UNIQUE 8" Super-Heterodyne Console Model, with loop aerial and built-in Speaker ..... £110  
Sales Policy.

Our financial strength allows us to offer dealers a most attractive proposition to sell "UNIQUE" Sets on terms. Write us for full information. The whole organisation is built on years of experience. All the staff from the Managing Director down, have had years of experience in actual manufacture of broadcast receivers.

**Our Manufacturing process is right.**

Our Products are right.

Our Sales Policy is right.

Our Sales Terms are right.

Let us put you right on to a good proposition—Write to-day.

If you are interested in selling Radio Sets, and want to obtain your share of the business, that will be there, to get at the same time well established for the coming season, write us fully what your prospects are and all about yourself. If the information meets with our approval we are prepared to send you a set on three days' trial. It is guaranteed and sealed.

**DEALERS  
WANTED  
IN  
EVERY  
TOWN**

MINGAY'S WIRELESS MFG. LTD.,  
56 Alma Street, Darlington, N.S.W.

Gentlemen.—Please send me full particulars of your Dealer-Agency Scheme.

NAME .....

BUSINESS .....

ADDRESS .....

**MINGAY'S WIRELESS MANUFACTURING LTD.**

56 ALMA ST., DARLINGTON, N.S.W.

Telegrams:  
"Mingaywire," SYDNEY.

Phone:  
Redfern 1124.

# CROSLEY MUSICONES

The National Radio Exhibition, which is now open at Olympia, London, is claimed to be the Greatest the World has seen.

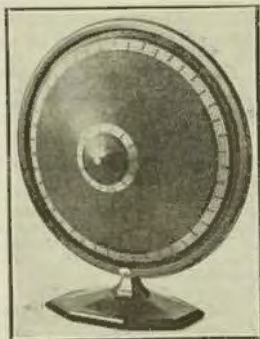
Receiving sets for home use, mostly of the type designed for simpler operation, were the greatest attraction, and these in almost every instance in conjunction with **Cone Type** Speakers, as it is claimed that these speakers with their large reproducing surface give softer tone and non-directional distribution, making them ideal for drawing room use.

The speakers that created the furore at the above Exhibition were the famous **Crosley Musicones** pictured below, which have also taken America by storm.

In this, their first year, the production has already exceeded half a million; and most of those sales have been to replace the now obsolete horn type speakers.

**£4/17/6**

Sold on a "Satisfaction or Money Back" guarantee



**£4/17/6**

Hear a Musicone before you buy an obsolete or imitation

Why not buy the latest and have correct musical reproduction

Contrast the slender beauty of the **Crosley Musicone** with the fat ugliness of a horn—Contrast its perfect tonal properties with the best you have ever heard—Contrast its price with the prices of to-day's "loud speakers." The answer is plain—You will choose the **CROSLEY MUSICONE**.

Obtainable from:—Swain & Co., W. Harry Wiles, Colville, Moore Ltd., Miss Wallace, Mick Simmons Ltd., Edgar V. Hudson (Brisbane), Adelaide Radio Co. (Adelaide), and most leading dealers, or write direct to—

**METROPOLITAN ELECTRIC COMPANY, LIMITED,**

27 KING STREET,  
SYDNEY



# Why Not Realise this Dream?

*If you heard this talk from 2FC you must have made this wish. Read how you can realise it.*

DO you remember this travel talk from 2FC recently?

"After leaving Darwin, in turn we steamed past the islands of Timor, Soerma and Lambok, as we made sail for Bali. This island lies close to the East Coast of Java. The straits between Java and Bali were most interesting and most beautiful. On both sides of the steamer towered precipitous ranges. The water was a beautiful deep blue in colour, and in the distance leisurely rolled up dreamy little beaches, fringed with banana trees and coconut palms."

The smooth even tones of the speaker conjured visions in your mind. He continued:

"These trees extend back for a little distance until the ground gradually slopes up to foothills and mountains. High above in the background tower range of misty blue-enveloped mountains, thickly covered in jungle-like forests. Every few miles a gigantic peak rises sheer and loses its head and shoulders in the clouds. The distance cloud-enveloped ranges formed a sombre, mysterious background for the bright green cultivations and white beaches, while the sunlight sparkled and glanced on the waters, alive with flying fish and white-sailed native craft."

What listener didn't wish for a holiday in Java after hearing this. By diverting a little of his spare time energy into the right channels any reader of "Wireless Weekly" has a chance of realising his wish.

There is a free return passage to Java and Singapore on one of Messrs. Burns Philp's mail steamers and incidental expenses amounting to £50 for the reader securing the greatest number of pre-paid subscriptions to "Wireless Weekly."

It's not hard to sell a good proposition to any wide-awake listener-in. You are a reader yourself; and know why you are buying the paper. Do your neighbour a good turn, and introduce him to us.

In addition to a trip to Java as first prize, we offer a special prize for the youth between 16 and 18 securing the

greatest number of subscriptions. By special arrangement with Amalgamated Wireless, we will present a full course through the Marconi School of Wireless to the winner in this section.

Here is a career which in the ordinary course of events would cost £50 to begin, free to any youth willing to devote his spare time and energy in an attempt to grasp this opportunity.

An intensive Marconi course lasts approximately 12 months, and at the end of that time the student sits for examination, conducted by the Postmaster-General's Department, and on passing receives a first-class wireless operator's certificate. This qualifies him for the position of ship's operator, and paves the way to the position of a radio engineer.

It is immaterial whether the student be in the city or country, since the course will be dealt with by post until the student is well advanced, and then several weeks' personal tuition will be given in the school in Sydney.

Subscription orders may be secured on "Wireless Weekly" forms. Books of 25 will be supplied to anyone filling in the following contract and sending it to Wireless Newspapers Limited.

To the Director,  
Wireless Newspapers Limited,  
51 Castlereagh Street,  
Sydney.

Sir,—  
In consideration of your allowing me to enter the "Wireless Weekly" Subscription Competition of Wireless Newspapers Limited, and supply me with a book of subscription forms, I undertake to remit to you within 24 hours after receiving same any signed subscription orders received and the amount of money received by me as represented on the order. I also undertake to account to you for all subscription order forms which you supply to me.

Signed .....  
Address .....

## Valves for 2/-

### Genuine Mullard Ora and Cossor Bright Emitters

(for use with accumulator)

2/-

Complete with English socket . . . . . 3/-

Cossor are listed in amplifiers (P2) and detectors (P1). Mullard are general purpose valves.

Hundred feet lengths of specially drawn 7/22 copper aerial wire at . . . . . 3/3

Complete with 6 egg, shell or emerald insulators . . 3/7

#### Real music from Cone Speakers.

Crosley Musicone (guaranteed) . . . . . £4/17/6  
Thorola (antique finish) £5/17/6

Straight Line Frequency Condensers from . . . . 9/6  
Single Circuit Jacks . . 1/9  
Double Circuit Jacks . . 2/-  
And other bargain Lines

#### POSTAGE PAID

"The Oldest Wireless Shop in Town."

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THE WIRELESS SHOP

6 Royal Arcade,

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Phone: City 8543.

Under the management of  
ALAN BURROWS

The guarantee of five years' reputation and service stands behind every article sold in this shop — and we sell everything for wireless.

On the opposite page will be found the

# Flat Dwellers Receiver

This efficient receiver may be viewed in our window. Come along and see it! Think of it — no outdoor aerial, simply a loop and you may hear broadcasting at loud speaker strength. The parts required are priced here.

	£	s.	d.
1 Bakelite Panel, 18 x 7 x $\frac{1}{4}$ inches .....	0	9	6
1 .0005 Precise Variable Condenser .....	1	10	0
1 400 ohms Potentiometer .....	0	5	6
1 6 or 30 ohms Pilot Rheostat .....	0	3	9
1 S.C. Jack .....	0	2	0
4 H. & H. Valve Sockets, Bakelite .....	0	19	0
2 Emmco A.F. Transformers .....	2	2	0
1 Jefferson R.F. Transformer .....	0	18	6
1 Wetless, .00025 Grid Condenser, with clips .....	0	1	9
1 H. & H. 2 megohm Grid Leak .....	0	2	3
1 Terminal Board, engraved .....	0	2	9
12 Busbars .....	0	1	0

Loop aeriels at prices to suit your pocket or we will show you how to make one. Drop into our Store at our only address given below, where you will see a most comprehensive range of wireless accessories at prices to suit you. **We are at your service.**

Information freely given.

**COLVILLE MOORE WIRELESS SUPPLIES LIMITED**

10 ROWE STREET (Next Hotel Australia Buildings), SYDNEY — Phone B 2261





Full constructional details of a four-valve loop receiver designed for the listener-in unable to erect an outdoor aerial. The loop receiver also has the advantage of being less sensitive to static.

**O**FTEN the experienced radio man is consulted by a friend wishing to obtain a radio receiver yielding satisfactory results without an outdoor aerial. It is with regret that the radio man has to advise his friend that his requirements are fulfilled only with a multi-valve receiver, such as a Super-Heterodyne. Frequently the cost of such a receiver bars his friend from the pleasures of radio, while many are unable to erect outdoor aerials.

The receiver this week overcomes both these difficulties. A frame or loop aerial is all that is required to produce satisfactory results on a simply constructed and easily controlled four-valve receiver. With Summer almost here, this receiver will be most suited for reception in zones where static is prevalent, as it is a well-known fact that the loop receiver is not so greatly affected by static as is the ordinary out-door aerial.

Many people do not know just how a frame aerial functions. For their benefit we explain. Although the difference in time is only a small fraction of a second, the wireless wave

strikes one vertical side of the frame before the other when the frame is pointing towards the transmitting station. This means a difference in potential between the two vertical edges of the frame winding and a current is set up which reverses in direction at a frequency corresponding to the inducing waves. It follows that the frame aerial is directional in its qualities, and has to be pointed edge on towards the station from which it is desired to receive.

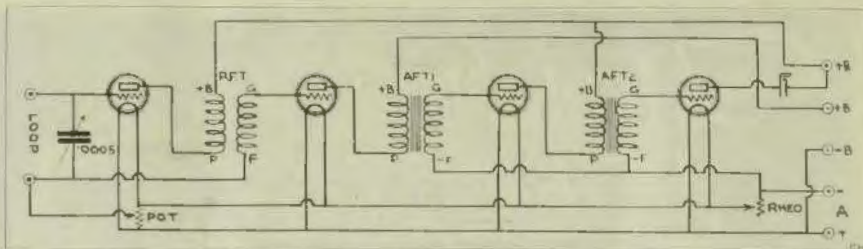
In this particular receiver this is

List of Parts.

- 1 Panel, Dilecto or Radion, 18in. x 7in. x 4in.
- 1 .0005 mfd. Variable Condenser.
- 1 Vernier Dial.
- 4 Valve Sockets.
- 1 Rheostat.
- 1 400-ohm. Potentiometer.
- 1 Radio Frequency Transformer, 200 to 600 metres.
- 2 Audio Frequency Transformers.
- 1 S.C. Jack.
- 1 Terminal Board, comprising seven terminals mounted on bakelite.
- 1 Baseboard, Busbar, etc.
- 1 Frame Aerial or Loop.

very much the case, as, for example, at Dulwich Hill no sign of 2GB (Theosophical Station) was heard on a given setting when the frame was pointing to the direction of 2BL, but immediately the direction of the frame was altered towards 2GB, this station came in with a wonderful punch on the speaker, and was pleasant to listen to. This fact must be borne in mind when operating this receiver, which, by the way, is so selective that a vernier dial is absolutely essential for tuning to receive the best results.

A good feature lies in the fact that this set does not employ honeycomb coils or any other type of wire-wound inductance except the frame aerial itself. There are three controls on the front panel. One is the main tuning dial, one the potentiometer, and one the rheostat which controls all four valves. The potentiometer is invaluable inasmuch as it clears up any mushiness or whistles which may arise in the set, thus ensuring good quality of reception. Last night it was quite a treat to hear 2BL transmitting the church service, and it is regretted that 2FC was not on their



The circuit diagram. Note the feed back from the F of the radio frequency transformer. This is most important.

new wavelength, in order to listen to them. The new wavelength of 2FC has been borne in mind, therefore don't hesitate to build this set, fearing that 2FC will not be heard.

A glance at the circuit diagram will show that there is used one stage of transformer-coupled radio frequency, detector and two stages of audio frequency. A careful scrutiny of the radio frequency transformer will point out that regeneration is employed. This is accomplished by feeding back the plate energy of the first valve into the loop, the energy being accepted inductively from the radio frequency transformer secondary, as it would be impracticable to take this energy direct from the plate of the valve as a short circuit would result through the loop itself. A .0005 mfd. variable condenser is used to tune this loop, which may be tapped as required. It may happen that the total inductance in the loop may be too great to tune as low as the wavelength employed by 2UE, for example, hence the necessity of a tapped loop so that a smaller number of turns may be pressed into service as required. An hour or so

of experiment and you may determine this for yourselves.

A number of readers will remember the "Marnikay" Receiver, published in this journal some months ago. They will remember just how selective the one-valve "Marnikay" was, so that they will have no hesitation whatever in building or recommending this receiver. The parts required are itemized, but it may be mentioned that the radio frequency transformer really required need not go beyond 600 metres wavelength, as it is useless to expect to receive 6WF (Perth) on this receiver, to do so would, no doubt, mean a distinct loss in efficiency on the shorter waves the set is designed to receive.

#### Construction.

The building of this set calls for no special knowledge, nor any apart from the standard tools usually required to construct a radio receiver. The panel has to be laid out according to the panel layout diagram produced here. Right in the centre of the panel is located the variable condenser, underneath which will be found the single circuit jack for plugging in your loud speaker. On the

left hand side is the potentiometer, and on the right hand provision is made for the rheostat. This rheostat is perhaps worthy of a word of explanation. The average 30-ohm rheostat will not carry any more than half an amp, therefore should the stan-



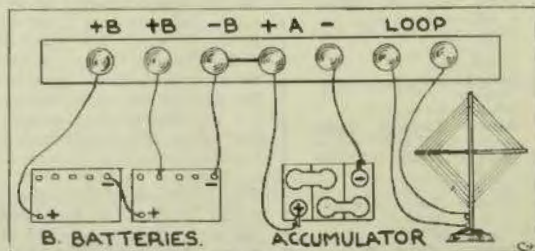
The panel layout. There are no terminals on the front to mar the appearance.

dard UV.201A valves be desired a 30-ohm rheostat will be too small, as the total current consumed by these valves will be more than half an amp, in fact this current will amount to 1 ampere. To suit these valves, a 6-ohm rheostat is suitable, but for valves such as Cossor Point One, or Philips B406, a 30-ohm rheostat will be found perfectly satisfactory. Always see that you get the correct rheostat for the valves you employ. A word with your radio dealer will help you if you are in any doubt regarding this question.

However, lay your panel on a flat surface, such as a table, and mark off with a centre punch. Drill the required holes for your panel components, and should your panel be so finger-marked that a rub with a dry cloth will not remove them, it will be found that a good old rub with Brasso and finishing off with a dry cloth will ensure a handsome polish. Mount your panel components and leave on the one side until you produce your baseboard layout.

#### Baseboard.

The baseboard used in this receiver



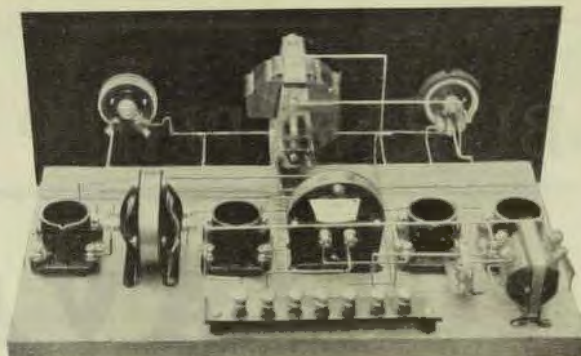
This shows the method of connecting up the "A" and "B" batteries and loop.



is of maple, 17in. x 9in. x 3in. or 1in. thickness. If desired, a coat of shellac can be applied. When this is dry, the valve sockets and transformers can be screwed down. The back of panel wiring diagram as well as the back of panel view will be of great value to you in this particular job. Follow out carefully, making each particular piece of apparatus secure and you can then proceed with the wiring.

#### Wiring.

The wiring of the receiver should be taken in easy stages, and be assured of accuracy as you proceed. Firstly, join together one filament connection of each socket. Next connect the grid terminal of each transformer to the grid terminal of each valve socket, noting, of course, that in the instance of the radio frequency transformer the grid condenser and grid leak are inserted in this circuit. Again, P terminal of the second and third valves are respectively connected to the P terminals of the second and third transformers. Then the F minus terminal of these transformers are connected together and joined to the minus of the "A" battery. Take each step slowly, and when finished,



This shows the view of the back of the receiver. The radio frequency transformer is seen in front of the radio frequency valve.

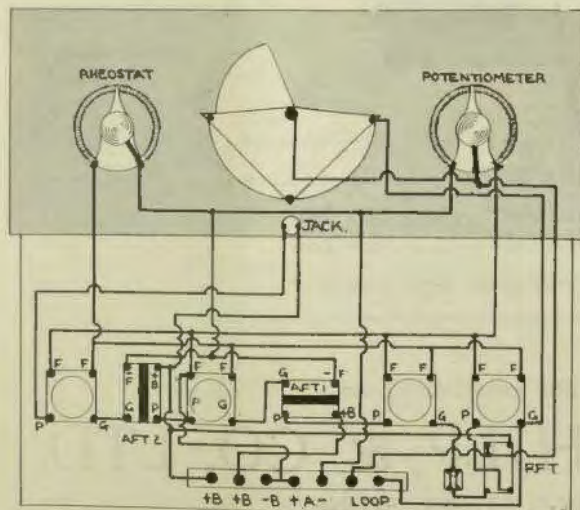
check over carefully rectifying any errors before proceeding further.

#### Operation.

There is really very little in the operation of this receiver, and the connecting of the "A" and "B" batteries calls for no great engineering knowledge. For the benefit of those who have never before connected "A" and "B" batteries to a receiver a diagram showing just how this is done will be found

here. Bear in mind, of course, never to connect a 6-volt accumulator on a 1.8 valve nor even on a 4 volt valve, as there is a very strong danger of these valves burning out under these circumstances. Pay attention to what the maker of each valve has to say regarding it, as they know exactly what they are doing, and also what their valves are capable of standing up to. Remember this now and at all times.

The loop has to be connected across the two terminals provided for this purpose, and pointed in the direction of the station that is being sought. Turn up your rheostat and plug in your loud speaker. Rotate the vernier dial very slowly until you locate the station. After the direction of your loop until you find the loudest point, and should the receiver squeal an adjustment of the potentiometer should entirely remove it and provide you with music of a very high quality. Perhaps until you become more familiar with this receiver, the headphones should be used, and by the manipulation of your loop and condenser you will be able to pick up all the local stations at perfectly good loud speaker strength. After a while the Interstate stations may be sought, but perhaps only phone strength will result. This will depend upon many factors over which perhaps you have no control whatever, but be assured that the local stations' programmes will be of particular interest to a great majority of readers.



The back of panel wiring diagram. Compare with back of panel view shown above.

# BURNS PHILP TOURS

## JAVA

The Wonderland of the East

Famous Temples

Interesting People

Native Bazaars

Tea Gardens



Regular Monthly Sailings by the Favorite Liners—

“MARELLA” - - - - 7,375 Tons

“MALABAR” - - - - 5,000 Tons

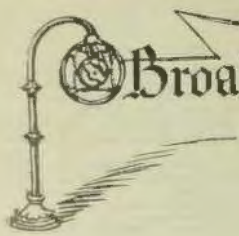
Via the picturesque Torres Straits Route

*Full particulars from*

# BURNS PHILP & CO. LTD.

BRIDGE STREET, SYDNEY





# Broadcasting Programmes

## for the Coming Week



Friday, Oct. 8

### 2FC

#### EARLY MORNING SERVICE

- 7.—Time signals, The Chimes of "Big Ben" and Announcements.
- 7.5.—Weather information, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services.
- 7.55.—Investment Market, Mining Share Markets, Metal quotations.
- 8.—Wool Sales, Breadstuffs Markets, Indurate Markets, Produce Markets.
- 7.45.—"Sydney Morning Herald" News Service.
- 8.—The Chimes of "Big Ben."
- 8.—Chorus Talk, by Mr. J. K. Powell.
- 8.15.—Close down.

#### MORNING SERVICE

- 9.15.—The Chimes of 2FC and Announcements.
- 9.30.—Music from the Studio.
- 10.—Chimes of "Big Ben."
- 10.5.—Late "Sydney Morning Herald" News Service.
- 10.15.—Music from the Studio.
- 11.—Chimes of Big Ben; Australian Press Association and Butcher's Cable Services.
- 11.10.—Music from the Studio.
- 11.15.—Cooking talk and Recipes by Miss Ruth Ford.
- 11.30.—Close down.

#### MIDDAY SERVICE

- 12.—The Chimes of "Big Ben" and Announcements.
- 12.15.—Stock Exchange, First Call.
- 12.15.—Music from the Studio.
- 12.50.—Rugby Wireless News.
- 1.—"Time Signals, Weather Intelligence.
- 1.5.—"Evening News" midday services, Producer's Distributing Society's Report.
- 1.50.—Music from the Studio.
- 1.30.—Stock Exchange—Second Call.
- 1.45.—Music from the Studio.
- 2.—Chimes of "Big Ben." Close down.

#### AFTERNOON SERVICE

- 2.30.—The Chimes of 2FC and programme announcements.
- 2.35.—Broadcast from the Haymarket Orchestra under the baton of Mr. Stanley Porter, during which will be given a description of the new film releases from the projection room of the Film House. This description will be carried out under the 2FC dual transmission, so that the orchestral music will form an effective background to the story of the film.
- 3.30.—From Farmer's Tea Rooms—The Oak Hall Trio.
- 3.40.—Miss May Jackson, soprano.
- 3.45.—From Farmer's Tea Rooms—The Oak Hall Trio.
- 3.55.—Music from the Studio.
- 4.—Miss Annie Payne (mezzo).
- 4.5.—Music talk by Mr. Ewart Chapple.
- 4.15.—Music from the Studio.
- 4.20.—Miss May Jackson, soprano.

- 4.25.—From Farmer's Tea Rooms—The Oak Hall Trio.
- 4.35.—Music from the Studio.
- 4.45.—Miss Annie Payne (mezzo).
- 4.45.—Stock Exchange—Third Call.
- 4.45.—Music from the Studio.
- 5.—Time Signals, the Chimes of Big Ben; Close Down.

#### EARLY EVENING SERVICE

- 5.15.—Time Signals; The Chimes of 2FC, and Announcements.
- 5.30.—The "Hello Man" talks to the children.
- 6.10.—Talk to the Elder Children.
- 6.45.—Late "Evening News" service; weather information.
- 7.—A talk by the 2FC Racing Commissioner.
- 7.15.—From the Studio, "Evening News" service.
- 7.30.—A talk on next week's Film Releases.
- 7.40.—Close down.

Farmer's service, Sydney, call sign 2FC, wave length 442 metres.

Broadcasters Ltd., Sydney, call sign 2BL, wave length 353 metres.

Trades Hall Broadcasting Station, call sign 2KY, wavelength, 250 metres.

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

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

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

Associated Radio Co., Melbourne, call sign 3AR, wave length 484 metres.

Queensland Radio Service, Brisbane, call sign 4QG, wave length 353 metres.

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

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

Westralian Farmer's, Perth, call sign 8WF, wave length 1230 metres.

Tasmanian Broadcasting Pty. Ltd., Hobart, call sign 7ZL, wave length 530 metres.

#### NIGHT SERVICE

- 7.50.—A talk in connection with Health Week
- 8.—The Chimes of Big Ben.
- 8.2.—From the Studio—Instrumental Trio.
- 8.14.—Mr. Walter Kingsley (baritone).
- 8.22.—Mrs. Evelyn Grey, in the second of her travel talks, "A romance of the Sky Scavenger."
- 8.35.—Miss Virginia Bassetti (contralto).
- 8.45.—Mr. Lindsay Evans (piano solos).
- 8.55.—Mr. Walter Kingsley (baritone).
- 9.1.—Mr. Gleanthe Bell (solo solos).
- 9.14.—Miss Virginia Bassetti (contralto).
- 9.22.—Sydney Instrumental Trio.
- 9.35.—From the dressing room at Her Majesty's Theatre, by permission of J. C. Williamson Ltd., Miss Goddie Reeve will interview Miss Harriett Bennett.
- 9.45.—Broadcast from Her Majesty's Theatre (by permission of Messrs. J. C. Williamson Ltd.) the second act of "Rose Marie."

- Featuring Miss Harriett Bennett.
- 11.—Westworth Cafe Dance Orchestra.
- 12.—National Anthem; close down.

### 2BL

#### EARLY MORNING SERVICE

- 7.15.—Physical Training and Health Exercises.
- 7.30.—Broadcasters Special News Service.
- 7.45.—Physical Training and Health Exercises.
- 8.—G.P.O. Clock and Chimes. Close down.

#### MORNING SERVICE

- 9.—G.P.O. Clock and Chimes; Musical programme from the Studio.
- 10.10.—Special News Service from the "Daily Telegraph."
- 10.25.—Musical programme from the Studio.
- 10.40.—Special News Service from the "Daily Telegraph."
- 11.—G.P.O. Clock and Chimes; Market Reports and London Metal Quotations.
- 11.15.—Musical Programme from the Studio.
- 11.25.—Broadcasters' Informative Service, including Mail, Shipping, Weather, Rain-fall.
- 11.45.—Women's Session; Talk on Health by Mrs. Jordan.
- 11.50.—Social Notes by Mrs. Jordan.
- 11.55.—Mrs. Jordan answering correspondence.
- 12.—G.P.O. Clock and Chimes; Mrs. Jordan will talk on "Cooking for 40 Family."
- 12.25.—Talk by Miss Helen Jean Bargling, on "Hints for Health."
- 12.30.—Sydney Stock Exchange Calls.
- 12.45.—Hilber's Instrumental Quartette, under the direction of Carol Gaalring.
- 1.30.—Sydney Stock Exchange calls.
- 1.45.—Latest sporting information from the "Sun."
- 2.—G.P.O. Clock and Close down.

#### AFTERNOON SERVICE

- During the afternoon, results of races broadcast immediately after each race, by courtesy of "Sun" Newspapers.
- 2.—G.P.O. Clock and Chimes. Weather Report, by courtesy of Mr. C. J. Marus, Govt. Meteorologist, and Social Notes from the "Sun."
- 2.15.—Civil Service Restaurant Trio under the direction of Miss De Curcy Bremser.
- 3.00.—A talk on English Literature and Poetry by Mr. J. M. Prentice.
- 3.45.—Music from the Studio.
- 4.—G.P.O. Clock and Chime. Music from the studio; Civil Service Restaurant Trio.
- 4.15.—Musical Programme from the studio.
- 4.30.—Social Story, entitled, "The Socialist Cookery," by C. M. Sublette.
- 4.45.—Music from the Studio.
- 5.—G.P.O. Clock and Chimes; Producer's Distributing Society's Market Report.
- 5.5.—Shipping Information when available.
- 5.15.—Resume of night's programme.
- 6.15.—G.P.O. Clock and Chimes. Close down.

#### EARLY EVENING SERVICE

- 6.—G.P.O. Clock and Chimes. The pupils of Miss Montea Scully will entertain the kiddie.
- 6.45.—Broadcasters' Dinner Orchestra.
- 7.—Australian Mercantile Land & Finance Co.'s Stock and Wool Report.
- 7.20.—Weather Report and Forecast, by courtesy of Mr. C. J. Marus, Government Meteorologist.
- 7.35.—Stock Exchange Reports.
- 7.51.—Producers' Distributing Society's Fruit and Vegetable report.
- 7.55.—Fruit and Vegetable Reports ("Sun").
- 7.59.—Grain and Fodder Reports ("Sun").

- 7.42—Egg and Poultry Market report.  
7.44—Country news from "The Sun."  
7.46—Health News: Miss Ruby Rich will talk on "Racial Regeneration."

## NIGHT SESSION.

- 3—G.P.O. Clock and Chimes; Broadcasters' Orchestral Chorus.  
8.1—Miss Lucy Wise (pianist).  
8.14—Miss Anna (soprano) (contralto).  
8.25—The Abad Duo.  
8.32—Miss Anna Burke and Mr. Chas. O'Mara.  
8.52—Carnet solo, by Mr. Roy Pyndick.  
9—G.P.O. Clock and Chimes; Resume of following day's programme; Weather Forecast by courtesy of Mr. C. J. Moran, Govt. Meteorologist.  
9.3—Miss Lucy Wise.  
9.14—The Senior Sporting Expert of the "Sun" will talk on "The Prospects of Tomorrow's Races."  
9.34—Miss Amy Ostinga.  
9.45—The Abad Duo.  
9.52—Miss Anna Burke and Mr. Chas. O'Mara.  
10.10—Al. Hammett and the Ambassadors Dance Band broadcast from the ballroom of the Ambassadors. During the intervals between dances News Reports by courtesy of the "Sun" Newspapers will be broadcast.  
11—G.P.O. Clock and Chimes; National Anthem.

## 2 KY

## LUNCHEON HOUR SESSION.

- 12.15—Popular fox trots, musical interlude, news items, Hawaiian steel guitar selections, Union news and meetings, vocal items, closing down at 1.45 p.m.  
Children's Hour.  
4.30—Mr. Thompson.  
EVENING SESSION.  
7—Sporting feature, turf topics, Review of candidates and their prospects for tomorrow, Mr. T. G. Hopkins.  
7.40—Lecturer: Industrial History, Mr. J. Ryan (Director, Labor Research and Information Bureau).  
8—A Talk on Motor Cycling, Mr. J. H. Hawkins.  
8.10—Favourite solo, Miss Mary Dean.  
8.18—Soprano solo, Miss Edith Walsh.  
8.25—Minstrel, Mr. David Edelman.  
8.33—Musical interlude (Palais Royal).  
9—Solistic, mouth organ, Mr. William Card.  
9.10—Sporting Feature, full description of main contest from ring side of McHoy's Leichardt Stadium.  
9.35—Music from Studio.  
10—Close down.

## 2 GB

- 6.45—Talk to children, by "The Man from Dreamland."  
7.15—Interval.  
7.30—Music from Studio.  
7.48—Announcements.  
7.53—Violin solos, by Miss Mauda Herder.  
8.33—Address by Sir Ror. C. W. Leadbeter.  
8.15—Instrumental Trio.  
8.30—Talk on Health, "Health Week."  
8.48—Songs, by Walter Farmer.  
8.54—Announcements.  
8.58—Duets for two violins and piano.  
9.5—Piano solos, by Miss Ada Brook.  
9.15—Address by Professor Ernest Wood.  
9.26—Duets for two violins and piano.  
9.35—Songs, by Mr. Walter Farmer.  
9.42—Instrumental.  
9.50—God Save the King.

## 3 LO

## MIDDAY SESSION.

- 12—British Official Wireless News from Rugby; Reuters and the Australian Press Association Calcutta.  
12.45—Stock Exchange Information; Meteorological Information; Weather Forecast

for Victoria, Tasmania, South Australia and New South Wales.

- 1.1—Studio Orchestra.  
1.10—Charles Pope, Coloured Comedy Koon.  
1.17—Franklyn Stotham, clarinet with orchestra.  
1.25—Studio Orchestra.  
1.35—Charles Pope.  
1.42—Reginald Bradley, violin.  
1.50—Studio Orchestra.  
2—Close Down.

## AFTERNOON SESSION.

- 2.20—First half of Tivoli Programme, by permission of J. C. Williamson Ltd.  
3.30—"Au Fait" of Messrs. Buckley and Nona Ltd.—Follies Talk.  
3.45—Margaret McKinnis, soprano (by permission of J. C. Williamson Ltd.).  
3.52—C. Richard Chung, Gite.  
4—Studio Orchestra.  
4.10—Mrs. M. Callaway Mahood.  
4.15—Margaret McKinnis, soprano.  
4.25—Teresa Vernon, solo.  
4.27—Studio Orchestra.  
4.35—"Herald" News Service: Stock Exchange information.  
5—Children's Song Competition. Radio vocal trials, accompanied by Elsie Bradshaw.

## EARLY EVENING SESSION.

- 6—Children's Hour: Answers to letters and birthday greetings.  
6.15—Charles Pope, Coloured Comedy Koon, will sing to the children.  
6.22—"Billy Bunny."  
6.35—"Arava" and "Herald" News Services; Reuters and the Australian Press Association.  
6.43—Weather synopsis, Shipping announcements.  
6.45—Stock Exchange information.  
7.3—Fish Market Reports by J. R. Forrest Ltd.  
7.4—River Reports.  
7.8—Market Reports by the Victorian Producer's Co-operative Co. Ltd. (Haymarket sheep sales; Poultry, grain, buff, straw, pig, dairy produce, potatoes and onions; Market prices of oranges and lemons, supplied by the Victorian Central Citrus Association Pty Ltd.)

## NIGHT SESSION.

- 7.25—Under the auspices of the Department of Agriculture; Mr. E. A. Kendall, Chief Veterinary Inspector. "Pleuris-Pneumonia in Cattle."  
7.40—Mr. R. Barrett-Leppard, now playing the part of Leander Biddoff in "Kasia," will speak to you from his dressing room at the Theatre Royal, by permission of J. C. Williamson Ltd.  
8—Collingwood Citizens' Band.  
8.16—Mr. E. C. H. Taylor, Secretary Associated Public Schools, "School Life and School Sport."  
8.30—Elsie Davies, soprano.  
8.32—Collingwood Citizens Band.  
8.35—Jack O'Hagan, baritone, accompanied by Collingwood Citizens' Band.  
8—Grand National Eisteddfod of Australasia, South St. Competitions, Ballarat. Second Choral Contest.  
9.45—Mr. G. B. Linforth will speak under the auspices of the Australian Commonwealth Engineering Standards Association.  
10—Collingwood Citizens' Band.  
10.10—British Official Wireless News from Rugby; news reports, supplied by the Automobile Club of Victoria.  
10.20—Charles Pope, Coloured Comedy Koon.  
10.27—Collingwood Citizens' Band.  
10.32—Elsie Davies, soprano.  
10.35—"Arava" News Service; Meteorological information; announcements.  
10.45—Charles Pope, comic comedian.  
10.54—Collingwood Citizens' Band.  
11—Dance Music by Le Gaskell's Orchestra.  
11.45—God Save the King.

## 3 AR

## MORNING SESSION.

- 11.30—The British Official Wireless Press, received by 3AR's operator from Rugby Wireless Station, England. Express train information. "Age" news bulletin.  
12—Time Signal Chime from the G.P.O., lat Weather Forecast; Studio Barometer Readings.  
12.4—Musical Selections, relayed from Hoyt's de Luxe, Bourke Street, Mr. T. L. Campbell at the organ.  
12.30—Stock Exchange News.  
12.40—Musical Selections.  
12.45—Mail Notices, Shipping Movements.  
1—Close down.

## AFTERNOON SESSION.

- 2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Brown.  
3—The Ernie Trio; Miss Elsie Henderson (pianist), Mr. T. Huxley (violinist), Mr. James Maxwell (guitarist).  
4—Time Signal Chime from G.P.O.  
4.5—Hoyt's Premier Orchestra.  
4.30—Mr. Stanley Haines will talk on "Gardening Club" to children.  
5.0—Time Signal; Studio Barometer Readings; Close down.

## EARLY EVENING SESSION.

- 6.45—The Children's Corner, by Uncle Rad.

## EVENING SESSION.

- 7.35—The British Official Wireless Press; Studio Barometer and Out-door Thermometer Readings.  
8—Time signal from G.P.O.  
8.2—Miss Kathleen Maloney (solo pianist).  
8.9—Miss Mabel Williams (soprano).  
8.16—Mr. Edwin Alexander (elocutionist) The Street Scene, Act 1, from Julius Caesar.  
8.23—Mr. Charles Crimp (baritone).  
8.30—Mr. R. Stanley Haines, talk, "Spring Gardens."  
8.40—Mr. Adrian Yarcos (tenor).  
8.52—Miss Therese Grosse (violinist).  
9.5—Mr. Edwin Alexander (elocutionist).  
9.13—Mr. Charles Crimp (baritone).  
9.20—Mr. W. W. Forthright, talk, "Figures: an easy method of calculating, discounts and percentages."  
9.45—Mr. Adrian Yarcos (tenor).  
9.52—Miss Kathleen Maloney (pianist).  
10—Time Signal Chime; Studio Barometer Readings; "Age" News Bulletin, exclusive to 3AR.  
10.10—Leygatt's Ballroom Orchestra, under leadership of Mr. Harry Nangle.  
11—Time Signal Chime; Close Down.

## 4 QG

## MIDDAY SESSION.

- 10—"The Daily Mail" News Service.  
11—Market Reports, Weather Information, "The Daily Mail" news, the "Daily Standard" news.  
12.30—From the Hotel Carlton, Lunch Hour Music by the Carlton Orchestra.  
2—Close down.

## AFTERNOON SESSION.

- 3.0—A programme of music from the Hotel Carlton.  
4.15—From the studio: "The Telegraphic" News; Close down.

## EARLY EVENING SESSION.

- 8.25—Tune-in.  
8.30—The Children's Session, Stories by "The Sandman."  
5—From the Council of Agriculture studio: "The Farmer's" 8-noon; Market Reports; Lecture: "Among Scottish Herds;" No.



1. Mr. J. F. F. Reid (editor Queensland Agricultural Journal).  
 1.20—From the Studio of 4QG: "The Standard" News; Stock Exchange.  
 7.45—Announcements.

## NIGHT SESSION.

- 7.45—Lecture Session—Mr. Phillip O'Brien Hoare in his popular poems and stories.  
 8—A full programme by the Lyric Entertainers, arranged by Messrs. J. P. Cornwall and R. J. Robinson; overture, Lyric Orchestra; Lyric Glee Party; duet, Mrs. H. Gibson and Mr. T. Melville; selection, The Lyric Orchestra; baritone solo, Mr. E. C. Belgrave; part song, Lyric Glee Party; duet, Mrs. A. F. Stoddart and Miss Daisy McDowell; male quartette, Lyric Male Quartette; soprano solo, Mrs. H. Gibson; Orchestral, The Lyric Orchestra; Trio, Messrs. Robinson, Melville, and Cornwall; contralto solo, Mrs. A. F. Stoddart; orchestral, The Lyric Orchestra; choral, The Lyric Glee Party; duet, Messrs. R. J. Robinson Melville and J. P. Cornwall.  
 Items by the Lyric Orchestra, Lyric Glee party, Lyric Male Quartette, and Mr. P. Cornwall.  
 10—"The Daily Mail" News Service; Close down.

## 5 CL

## MORNING SESSION.

- 11.30—G.P.O. Chimes.  
 11.41—Featuring a Stock Duo Art Number.  
 11.45—"Advertiser" News Service.  
 11.55—Vocalion number.  
 12—G.P.O. Chimes.  
 12.15—"Advertiser" News Service and Cricket reports.  
 12.16—Featuring a Stock Duo Art Number.  
 12.30—5CL Studio Orchestra will be heard in a series of classical numbers.  
 1.55 (approx.)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.  
 2—G.P.O. Chimes.

## AFTERNOON SESSION.

- 2—G.P.O. Chimes.  
 2.1—Relay from "Maple Leaf" Cafe—Orchestral numbers.  
 2.45—From Studio—Serial Story.  
 4—G.P.O. Chimes.  
 4.1—Broadcast from "Aresida" Cafe—Orchestral numbers.  
 4.55—Stock Exchange Reports, General Information, and Station Announcements.  
 5—G.P.O. Chimes.

## EVENING SESSION.

- 8.30—G.P.O. Chimes.  
 8.41—Bedtime Stories, by "Auntie Peggy."  
 7.30—Market Reports.  
 7.40—Sporting Talk, by "Old Timer."  
 8—The Merry-makers Orchestra, interspersed with vocal items.  
 9.1—Weather Reports.  
 9.3—Studio Concert, continued.  
 10.15—Advertiser News Service.  
 10.30—Studio Concert, continued.  
 10.55—Station Announcements.  
 11—G.P.O. Chimes; National Anthem and Close down.

## 7 ZL

## MORNING SESSION.

- 1.1—"The Mercury" news, stock market, shipping, commercial intelligence, weather information, Records from the Studio.  
 12—Selection on the Saloons. G.P.O. clock and chimes. Close down.

## AFTERNOON SESSION.

- 2—G.P.O. Clock and Chimes.  
 2.10—Hobart Stock Exchange quotations.  
 2.55—Weather information.  
 4—G.P.O. Clock Chimes. Close down.

## EARLY EVENING SESSION.

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

## EVENING SESSION.

- 8—G.P.O. Clock Chimes. "The Mercury" special Tasmanian news service. Railway auction produce sales. Weather information.  
 8.15—Hobart Stock Exchange quotations.  
 8.16—Weekly gardening chat, by Mr. George Nation, of the Glen Nurseries, Cascade.  
 8.20—"Sports Budget," supplied by Mr. T. W. Newton, of Hobart Sports Depot.  
 8.30—Concert from the Studio: Mrs. Arthur Roberts, contralto; Miss Jean Hilbard, mezzo soprano; Miss Kathleen Pearce, contralto; Mr. Jack Broadbent, baritone; Master Victor Pharoah, banjo solos; Mr. Hugh Taylor, elocutionist.  
 9.50—"The Mercury" special interstate news service; weather synopsis; station announcements; National Anthem.



## Saturday, Oct. 9

## 2 FC

## EARLY MORNING SESSION.

- 7—Chimes of "Big Ben" and announcements.  
 7.5—Music from the Studio.  
 7.16—Weather Information, Commercial News, Shipping Intelligence and Market Reports. Mail services. Rainfall, Temperatures. Astronomical memoranda.  
 7.25—Investment Market, Mining Share Market, Metal Quotations.  
 7.35—Wool Sales, Breadstuffs Markets, Interstate Markets, Produce Markets.  
 7.45—"Sydney Morning Herald" News Service.  
 8—The Chimes of "Big Ben." Music from the Studio.  
 8.15—Close down.

## MORNING SESSION.

- 9.15—The Chimes of "Big Ben" and Announcements.  
 9.20—Music from the Studio.  
 9.45—A Talk by the 2FC Racing Commissioner.  
 10—Time Signals, The Chimes of "Big Ben" and Announcements.  
 10.5—Late "Sydney Morning Herald" news service.  
 10.15—Music from the Studio.  
 11—The Chimes of "Big Ben" and Announcements.  
 11.15—A Talk on Gardening by "Red Gum."  
 11.30—Close down.

## MIDDAY SESSION.

- 12.55—The Chimes of 2FC and Announcements.  
 1—The Chimes of "Big Ben" and Announcements; The final day of the A.J.C. Racing Meeting at Randwick will be broadcast; 2FC Racing Commissioner will give starter's, riders, and positions at the post for each event, and describe the race in running.

## AFTERNOON SESSION.

- 2.55—The Chimes of 2FC and Announcements.  
 3—The Chimes of "Big Ben" and Announcements; A musical programme will be given from the studio during the intervals of sporting results.  
 4.30—A complete resume of the afternoon's sporting events.  
 4—The Chimes of "Big Ben." Close down.

## EARLY EVENING SESSION.

- 5.45—Time Signals; The Chimes of "Big Ben" and Announcements.  
 6.50—"The Hello Man" talks to the Children.  
 6.50—A Talk to the older children.  
 6.45—Broadcast from the Hotel Australia, Orchestral Items.

- 7—"Evening News" Late News Service and Weather Information.  
 7.20—A detailed description of the racing, the crowds and the dress, by the 2FC Special Racing Staff.

## NIGHT SESSION.

- 7.55—Announcements.  
 8—"The Chimes of "Big Ben."  
 8.2—From the Studio: The Metropolitan Quartette (A. M. Chumplin, tenor; Mary Bourke, contralto; Miss Lynn Mills, soprano, and A. G. Ellis, baritone), will give items from Cellier's delightful Opern "Dorothy"; (a) Quartette, "Lada and Lases"; (b) song soprano, "The Wise in Time"; (c) Quartette, "We're sorry to Delay You."  
 8.15—Miss Gertrude Mack will give the 4th talk of the series on "A day in a Japanese Train."  
 8.30—Dr. Arthur, in connection with Health Week will deal with "Sex Education."  
 8.40—The Metropolitan Quartette in items from the comic opera "Dorothy"; (a) Ballad (tenor) "Such a Dainty Damsel"; (b) Quartette; To bed so Soon; (c) Recit and Quartette; One Moment Pray.  
 8.52—Mr. Lionel Lawson, violin solo.  
 9—Mr. Wally Barnes, comedian.  
 9.5—Items from the "Dorothy" opera: (a) song, baritone; Queen of my Heart; (b) Quartette; You swear to be good and true; (c) Ballad, contralto; The time has come; (d) Flute; A Father's Joy and Pride.  
 9.25—A Talk on Racing by Captain Fred Aarons.  
 9.35—Miss Lynn Mills, soprano.  
 9.37—Mr. A. G. Ellis, baritone.  
 9.42—Mr. Lionel Lawson, violin solo.  
 10—Mr. Arthur Chumplin, tenor.  
 10.4—Miss Mary Burke, contralto.  
 10.8—2FC Dance Band.  
 10.16—Mr. Wally Barnes, comedian.  
 10.24—Broadcast from the Wentworth Hotel, Sydney's Wentworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.  
 10.35—2FC Dance Band.  
 10.45—Wentworth Cafe Dance Orchestra.  
 11—2FC Dance Band.  
 11.30—Wentworth Cafe Dance Orchestra.  
 12—National Anthem; Close down.

## 2 BL

## EARLY MORNING SESSION.

- 7.15—Physical Training and Health Exercises.  
 7.50—Broadcasters Special News Service.  
 7.45—Physical Training and Health Exercises.  
 8—G.P.O. Clock and Chimes; Close down.

## MORNING SESSION.

- 11—G.P.O. Clock and Chimes; Results of all races broadcast immediately after each race by Courtesy of the "Sun" News-papers; Musical programme from the Studio.  
 11.10—Special News Service from the "Daily Telegraph."  
 11.25—Broadcasters information service, including mails, boats in touch by wireless, shipping, weather, and rainfall reports; London metal quotations.  
 11.40—Women's Session; Talk on Health by Mrs. Jordan.  
 11.50—Social Notes by Mrs. Jordan.  
 11.55—Mrs. Jordan answering correspondence.  
 12—G.P.O. Clock and Chimes; Mrs. Jordan will talk on Simple Cooking for Children.  
 12.30—Racing Information by courtesy of the "Sun." A talk on racing and athletic fixtures for the day.  
 12.40—Music from the Studio.  
 12.50—News from "Sun" Cable Edition.  
 1—G.P.O. Clock and Chimes.

## AFTERNOON SESSION.

- During the afternoon sporting information will be broadcast by courtesy of the "Sun."  
 5.15—G.P.O. Clock. Close down.

## NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Broadcasters Topical Chorus.

- 8.3—The Ambassadors Instrumental Salon Quartette, under the direction of Mr. Claude McElrath.
- 8.35—Mr. Richard McClelland (Saxo cantante).
- 8.40—Branza Quartette.
- 8.45—"Hear My Prayer" by Mr. Richard McClelland's Choir.
- 8.50—Mr. Victor McMahon (flauto).
- 8.55—F.O. Clock and Chimes; Reviews of following day's programme, Weather Report and Forecast by courtesy of Mr. C. J. Hayes, Govt. Meteorologist.
- 9.00—Miss Maude Barnett (contralto).
- 9.10—Branza will talk on the Aborigines.
- 9.15—Mr. Richard McClelland.
- 9.17—Interval.
- 9.20—Branza Quartette.
- 9.25—Miss Maude Barnett.
- 9.30—Al. Haunert and the Ambassadors Dance Band broadcast from the ballroom of the Ambassadors. During the intervals between dances, news reports by courtesy of The Sun Newspapers will be broadcast.

## 2 KY

## EVENING SESSION.

- 7.15—Sporting Feature. Mr. T. G. Hopkins: Complete review of to-day's racing.
- 7.20—News Items.
- 8—Contra-Altos, Miss Joan Walsh.
- 8.10—Recitation, Mr. Bob. Carlin.
- 8.20—Tenor solo, Mr. Ray Hamilton.
- 8.30—Musical Interlude, Palais Royal Call-girls, Leader, Mr. Beckan (by kind permission of J. T. Bennett Ltd.).
- 8.40—Sketch, Mr. Bob. Cohen.
- 8.45—Laford Legislation Series, Mr. J. C. Eldridge.
- 8.50—Sporting feature from the track at the Spectator's Hall, results of car events and description of motor cycle racing.
- 9.00—Music from the Studio.
- 9.10—Description and results of semi-finals from Speedway Royal.
- 9.15—Vocal items from Studio.
- 9.15—Description and results of finale from Speedway Royal.
- 10.20—Music from Studio.
- 10.30—Close down.

## 3 LO

## MORNING SESSION.

- 11—Sonora Recital.
- 11.10—Harold Rodgers, organist.
- 11.20—Gwen Barham, contralto.
- 11.30—Sonora Recital.
- 11.40—Harold Rodgers, piano.
- 11.50—Gwen Barham, contralto.
- 12.9.15—Time Signal, British Official Wireless News from Rugby, Bentor's and the Australia Press Association cables, "Argus" and "Herald" news services, Shipping intelligence.
- 12.15—Stock Exchange information.
- 12.50—Meteorological information, Weather-forecast for Victoria, Tasmania, South Australia, and New South Wales, Ocean forecast, River reports.
- 1—Time signal.
- 1.1—Studio Orchestra.
- 1.10—Dorothy Rensburgh, Viola.
- 1.17—Charles Pope, Coloured Comedy Koon.
- 1.25—Studio Orchestra.
- 1.35—Result of the Lola Welter Caulfield Races.
- 1.40—Walter Smith, cornet.
- 1.42—Charles Pope, comedienne.
- 1.50—Studio Orchestra.
- 2—Close Down.
- 2.30—Result of Debating Stakes.

## AFTERNOON SESSION.

- Musical Director: Reginald Bradley.
- 8—M.O. Dance Orchestra.
- 8.10—Result of Caulfield Stakes—Caulfield Races.
- 8.15—M.O. Dance Orchestra.
- 8.45—Result of Ringwood Steeple—description while racing.

- 8.50—M.O. Dance Orchestra.
- 4.20—Result of Caulfield Guineas—Caulfield.
- 4.30—M.O. Dance Orchestra.
- 4.40—"Herald" News Service; Stock Exchange Information.
- 5—Result of Toorak Handicap—Caulfield races.
- 6.1—Children's Song Competition—Voice trials.

## EVENING SESSION.

- 8—Children's Hour; Answers to letters and birthday greetings.
- 8.15—Charles Pope, Coloured Comedy Koon, will sing to the children, accompanist, Elsie Drabbin.
- 8.25—"Mary Gunter's" poems; story for little ones; for the boys and girls; musical number by Betty Boreham.
- 8.40—"Argus" and "Herald" News Service; Shipping results, Reuters and Australia Press Association cables.
- 8.55—Weather synopsis, Shipping movements.
- 8.57—Stock Exchange Information.
- 1.2—Miss Maude Barnett.
- 7.4—River Reports.
- 7.8—Market Reports by Victorian Producers' Co-operative Co. Ltd.'s Grain, chaff, hay, straw, oats, dairy produce, potatoes and onions.

## NIGHT SESSION.

- 7.00—Mr. R. Rowson, "Separation: the life story of its author."
- 7.45—Mr. E. A. Kenny, hon. sec. Australian Amateur Bowling Council, "Amateur Bowling as a sport."
- 8—From Ballarat to the Balkans: Grand National Kite-festival of Australasia, South Coast Compositions, Ballarat; Grand Champion Choral Contest.
- 8.5—Jack O'Hagan, baritone.
- 8.5—British Official Wireless news from Rugby; results of the South Street competition; announcements.
- 9.10—Second act of "Katie," transmitted from Theatre Royal, by permission of J. C. Williamson Ltd.
- 10.10—"Argus" news service; sporting results, news, football, metropolitan soccer league, metropolitan amateur association, league announcements.
- 10.20—Charles Pope, Coloured Comedy Koon.
- 10.25—Rivoli Dance Orchestra.
- 10.35—Charles Pope will sing children's part.
- 10.47—Rivoli Dance Orchestra.
- 11.40—God Save the King.

## 3 AR

## MORNING SESSION.

- 11.70—The British Official Wireless Press, received from Rugby Super Wireless Station, England, by 3AR's operator; the "Argus" News Bulletin, Express Train Information.
- 12—Time Signal from G.P.O.; Studio barometer and outdoor Thermometer Readings; 1st Weather Forecast; events of the day; Sporting fixtures.
- 12.5—Musical Selections, relayed from Hoyt's DeLuxe, Bourke Street, Mr. T. L. Campbell at the Victrolizer.
- 12.50—Stock Exchange News, Foreign Exchange of the World, Supplied by Messrs. Thos. Cook and Sons.
- 12.40—Musical Selections.
- 12.65—Mail notices, Shipping movements.
- 1—Close down.

## AFTERNOON SESSION.

- V.A.T.C. Meeting at Caulfield.
- 1.10—Result of Lola Welter.
- 2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Brien.
- Result of Debating Stakes.
- 3.5—Description of Caulfield Stakes; Hoyt's Premier Orchestra.
- 4.40—Result of Ringwood Steeplechase.
- 4—Time Signal, Chime, and Weather Forecast, Hoyt's Orchestra.

- 4.15—Result of the Caulfield Guineas.
- 4.50—Result of the Toorak Handicap.
- 5—Time Signal Chime, Studio Barometer Readings; Close Down.

## EARLY EVENING SESSION.

- 6.35 The Children's Corner, by Brother Steve.

## NIGHT SESSION.

- 8—Time Signal from G.P.O.; Studio Barometer and outdoor Thermometer Readings; The British Official Wireless Press; Sporting results; Local News.
- 8.15—Dance Night, The Rhythmic Dance Orchestra, relayed from the Maize de Luxe, Elwood. Latest popular dance music, under the leadership of Mr. George Lewis.
- 8.30—Week-end Travellers' Information, supplied by the Victorian Railways Department and the Melbourne Tramways Board.
- 8.50—The Rhythmic Dance Orchestra.
- 9.00—Time Signal from G.P.O.; Studio Barometer and outdoor Thermometer Readings.
- 10.5—The Maize de Luxe Rhythmic Dance Orchestra.
- 11.0—Time Signal from G.P.O. Close down.

## 4 QG

## NO MIDDAY TRANSMISSION.

## AFTERNOON SESSION.

- 4.20—Time-in.
- 5.30—A matinee for little listeners.
- 4.40—Close down.

## EARLY EVENING SESSION.

- 8.25—Time in.
- 8.30—The Children's Session, Bedtime Stories by "Uncle Ben" and "Uncle Jim," assisted by "Mabel, Sinshine."
- 7.15—Sporting News.
- 7.30—Close down.

## NIGHT SESSION.

During the course of the evening, an address will be given by Hon. T. Dunstan, M.L.A.

- 7.45—From Nambour: Musical Festival News, Radio Voice Contest items will be included from the studio at a suitable time about 8.30 p.m.

- 10.30—From the Studio: "The Daily Mail" News Service; Close Down.

## 5 CL

## MORNING SESSION.

- 10.30—G.P.O. Chimes.
- 10.31—Studio Orchestra.
- 11.45—Ward & Co's Stock Exchange Reports; Official Weather Synopsis, and station Announcements.
- 12—G.P.O. Chimes.

## AFTERNOON SESSION.

Sporting Results, interspersed with Duo Art and Vocalion Numbers.

## EVENING SESSION.

- 6.30—G.P.O. Chimes.
- 6.31—Radio Music Stories by Auntie Sybil and Uncle Mike.
- 7.30—Market Reports.
- 7.40—Resume of the chief sporting results throughout the Commonwealth.
- 8—G.P.O. Chimes.
- 8.1—Vocal and Instrumental Items from studio, by G. Healy, Meta Kelly, Valda Harvey, H. Simcock, Isabel Penny, and Eric Stephenson.
- 8—G.P.O. Chimes.
- 8.1—Weather Reports.
- 8.3—Studio Concert, continued.
- 10.15—Advertiser News Service.
- 10.16—Studio Concert, continued.
- 10.55—Station announcements.
- 11—G.P.O. Chimes, National Anthem and Close down.



7ZL

MORNING SESSION.

- 11—G.P.O. Clock Chimes. "The Mercury" news. Stock Market, Shipping, Commercial intelligence. Weather information and Spurring anticipations.
- 11.45—Selections on the Salsola. Hobart Stock Exchange quotations.
- 12—G.P.O. Clock Chimes. Close down.

EARLY EVENING SESSION.

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

NIGHT SESSION.

- 8—G.P.O. Clock Chimes. "The Mercury" special Tasmanian news service. Railway auction produce sales. Weather information and sporting results.
- 8.15—Hobart Stock Exchange quotations.
- 8.15—"Come to Tasmania" movement, by Mr. E. Nuttallford, O.B.E. "Golding in Tasmania."
- 8.30—Concert from the studio: mandolin selections by the Osborne party; humorous items by Mr. and Mrs. A. Brough; Miss Ruby Pierson, accompanist.
- 9.45—British Official Wireless news, copied direct from Rugby by our own operator; weather synopsis; station announcements; National Anthem.



Sunday, Oct. 10

2FC

MORNING SESSION.

- 10.55—The Chimes of 2FC and Announcements.
- 11—"The Chimes of 'Big Ben'."
- 11.2—Broadcast from St. Andrew's Cathedral, morning service.
- 11.15—From the Studio—News Session.
- 12.20—Close down.

AFTERNOON SESSION.

- 2.55—Announcements.
- 3—"The Chimes of 'Big Ben'"; broadcast from the Anzac Range, Liverpool; the Memorial Service, conducted by the National Rifle Association of N.S.W.; Choir numbers will be rendered by St. Luke's Choir, Liverpool. The address will be given by the Bishop of Goulburn. The service will be conducted by Rev. Tivy, of Temora.
- 4.30—From the Studio: A talk on hymns, by Mr. William Adams.
- 4.45—From the Studio: A talk on the 1926 Anniversary of St. Matthews', Windor.
- 5—Close down.

NIGHT SESSION.

- 6—Chimes of "Big Ben" and announcements. Organ Recital by Miss Lilian Frost, broadcast from the Pitt Street Congregational Church.
- 7—Broadcast from the Pitt Street Congregational Church, Evening Service; preacher, Rev. T. E. Ruth.
- 8.30—Broadcast from the Strand Theatre, Leichhardt: The final concert by the Leichhardt District Band, conductor, Mr. E. P. Kerry.
- 10—National Anthem. Close down.

2BL

MORNING SESSION.

- 11—Service broadcast from Enmore Church of Christ.

AFTERNOON SESSION.

- 2.10—Bible Class, conducted by Mr. W. ("Cairo") Bradley.
- 3—Organ Recital, broadcast from Chalmers Presbyterian Church, City.

EVENING SESSION.

- 7—Service broadcast from Chalmers Presbyterian Church.
- 8.30—Concert from the Studio.
- 10.15—National Anthem.

3LO

MORNING SESSION.

- 10.50—Express train information.
- 11—Service from First Church of Christ, Scientist, Melbourne.
- 12.15—British Official Wireless News, from Rugby.
- Close down.

AFTERNOON SESSION.

- 3—Pleasant Sunday Afternoon Service, from Central Mission Wesley Church, Lonedale Street, Melbourne. Rev. J. H. Cain, chairman.
- 4.30—Close down.

EARLY EVENING SESSION.

- 5.45—Children's Hour. Answers to letters and Birthday Greetings.
- 6—Mr. Barnford, "Missionary Experiences in Central Africa."
- 6.15—Hymns by "Billy Bunny" and "Dora Roberts."
- 6.22—Stories by "Billy Bunny," "Mimosa," and "Lovelost Life."
- 6.45—Close down.

NIGHT SESSION.

- 6.55—Service from St. George's Presbyterian Church, Chapel Street, East St. Kilda.
- 8.30—Malvern Tramways Band.
- 8.40—Colin Thomson, tenor.
- 8.47—C. Richard Chung, alto.
- 8.54—Malvern Tramways Band.
- 9.6—Elsie Davlen, soprano.
- 9.11—C. Richard Chung, alto.
- 9.16—Malvern Tramways Band.
- 9.21—Colin Thomson, tenor.
- 9.28—Benjamin C. Turner and J. Alway, cornet duet.
- 9.33—Elsie Davlen, soprano.
- 9.40—Reynold Bradley, violin.
- 9.50—"Arms" news service. Announcements, etc.
- 9.57—Malvern Tramways Band.
- 10—God Save the King.

3AR

MORNING SESSION.

- 11—Service from St. James' Old Cathedral, Latrobe Street, Praeher, Rev. A. E. F. Young.

AFTERNOON SESSION.

- 3—Evans Harmony Orchestra.
- 3.7—Mr. Harry Morris (violinist).
- 3.14—Miss Florence Leslie (soprano).
- 3.21—Evans Harmony Orchestra.
- 3.28—Mr. F. K. Evans (tenor saxophone solo).
- 3.35—Miss Peggy Lester (solictonist).
- 3.42—Evans Harmony Orchestra.
- 3.49—Messrs. F. R. Evans and H. Morris, saxophone and violin duet.
- 3.55—Evans Harmony Orchestra.
- 4—Close down.

NIGHT SESSION.

- 7—Evening Service from the Swanston Street Church of Christ. Preacher, Dr. John L. Brandt, of Oklahoma, U.S.A.
- 8.30—Studio Concert, Miss Gladys MacDowell (contralto).
- 8.37—Miss Sheila Marfle (cello solo).
- 8.44—Miss Marjorie Ambler (soprano).
- 8.51—Mr. John Box (baritone).

- 8.58—Miss Elizabeth Proctor, talk on "National Heroes."
- 9.5—Mr. Courtney V. Mohr (baritone).
- 9.12—Miss Gladys MacDowell (contralto).
- 9.19—Miss Sheila MacFie (cello solo).
- 9.28—Miss Marjorie Ambler (soprano).
- 9.33—Miss Elizabeth Proctor (piano solo).
- 9.40—Mr. John Box (baritone).
- 9.46—"Arms" News Bulletin, exclusive to 3AR.
- 9.55—Close down.

4QG

MORNING SESSION.

- 10.40—Tune in.
- 10.45—From the School of Arts: Instrumental overture.
- 11—The complete morning service of the International Bible Students Association, held in the School of Arts, Ann Street, Brisbane, will be broadcast.
- Close down.

AFTERNOON SESSION.

- 3.10—Tune in.
- 3.15—The programme given by the Enzebler Band, under the conductorship of Mr. G. Hulme, will be relayed.
- 4.50—Close down.

NIGHT SESSION.

- 7.10—Tune in.
- 7.15—The evening service by the I.B.S.A., held in the School of Arts, Ann Street, Brisbane, will be broadcast.
- 8.30—At the conclusion of the church service, the programme given by the Greater Brisbane Municipal Concert Band will be relayed from Wickham Park.
- 8.50—Close Down.

5CL

MORNING SESSION.

- 11—Relay from Black Forest Baptist Church, Divine Service.

NIGHT SESSION.

- 6.40—G.P.O. Chimes.
- 6.41—Bedtime Stories by Uncle Mike.
- 7—Relay from the St. Bartholomew's Church—Divine Service.
- 7.15 appears—Relay from the Railways Institute; Holden's Silver Band.
- 8.45—From the studio: Mr. P. H. Nickolls, "Shakespeare the Man."
- 9—G.P.O. Chimes.
- 9.1—Weather Reports.
- 9.5—Band concert, continued.
- 10—G.P.O. Chimes; National Anthem, and Close down.

7ZL

NIGHT SESSION.

- 7—Service from Memorial Church Hobart, preacher, Rev. Arthur C. Nelson.
- 8.45—Concert from the Studio: Miss Ruby Pierson, accompanist; Miss Frances Evans, contralto, Mr. W. E. Fuller, dramatic recital; Mr. G. H. G. Tennant, baritone; Mr. L. M. Barnett, cornet solo.
- 9.45—"The Mercury" Special Intermediate News service. Weather synopsis. Station announcements. National Anthem.



Monday, Oct. 11

2FC

EARLY MORNING SESSION.

- 7—"The Chimes of 'Big Ben' and Announcements.
- 7.5—Music from the Studio.
- 7.10—Weather Information; commercial

News, Shipping Intelligence, Rainfall, Temperatures, Astronomical Memoranda.  
 7.25—Investment Market, Mining Share Market, Metal Quotations.  
 7.30—Wool Sales, Breadstuffs Markets, Inter-Island Markets, Produce Markets.  
 7.45—"Sydney Morning Herald" News Service.  
 8.—The Chimes of "Big Ben", A Chorus led by Mr. J. K. Powell.  
 8.10—Close down.

## MORNING SESSION.

9.15—The Chimes of 2FC and programme Announcements.  
 9.20—Music from the Studio.  
 9.30—Time Signal, The Chimes of "Big Ben", Music from the Studio.  
 10.15—Late "Sydney Morning Herald" News Service.  
 10.25—Music from the studio.  
 10.45—A Morning Reading.  
 11.—The Chimes of "Big Ben" and Announcements.  
 11.15—Last Minute Sporting Information by the 2FC Racing Commissioner, Australian Press Association and Reuter's Cable Service.  
 11.25—Music from the Studio.  
 11.30—Description of Canberra and the Federal Parliament Buildings.  
 11.45—Broadcast from the Senate Chamber of Federal Parliament House, Canberra, the secretary of the building over of the Speaker's Chair, which is being presented by the House of Lords, London, to the Commonwealth Parliament. Speeches will be given by the Marquis of Salisbury and representatives of the Commonwealth Governments.

## MIDDAY SESSION.

12.—The Chimes of "Big Ben" and Announcements.  
 12.15—Stock Exchange, first call.  
 12.16—Music from the Studio.  
 12.20—Marching Music to the Children.  
 12.40—From Farmer's Tea Rooms—The Oak Hall Trio.  
 12.45—Music from the Studio.  
 1.15—Miss Joyce Hunt, soprano.  
 1.—The Chimes of "Big Ben", Weather Intelligence, Rugby Wireless News.  
 1.16—Evening News, Military News Service, Producer's Distributive Society's Report.  
 1.20—Music from the Studio.  
 1.25—From Farmer's Tea Rooms; The Oak Hall Trio.  
 1.30—Stock Exchange—second call.  
 1.35—Music from the Studio.  
 1.40—From Farmer's Tea Rooms; The Oak Hall Trio.  
 2.—The Chimes of "Big Ben"; Close down.

## AFTERNOON SESSION.

2.30—The Chimes of 2FC and Announcements.  
 2.35—A Recital on the Gehringer Player Piano.  
 2.50—From Farmer's Tea Rooms; The Oak Hall Trio.  
 3.15—Miss Kathleen Fletcher, "Melbauds in the Woods" (Solo).  
 3.45—From Farmer's Tea Rooms; Oak Hall Trio.  
 4.—Music from the Studio.  
 4.—Miss Kathleen Horn, soprano.  
 4.15—From Farmer's Tea Rooms; The Oak Hall Trio.  
 4.15—Music from the Studio.  
 4.20—Miss Kathleen Fletcher, "Keep on Hopin'" (Maxwell).  
 4.25—From Farmer's Tea Rooms; The Oak Hall Trio.  
 4.35—Music from the Studio.  
 4.40—Miss Kathleen Horn, soprano.  
 4.45—Stock Exchange, Third Call.  
 4.50—Close down.

## EARLY EVENING SESSION.

5.15—Chimes of 2FC and Announcements.  
 5.30—"The Hello Man" talks to the children.  
 5.45—A Serial Story for the Older Children.  
 6.00—Broadcast from the Hotel Australia, orchestral items.  
 7.15—From the Studio; "Evening News" late news service and weather information.  
 7.30—Daily's Market Reports (wool, wheat, stock, fruit, and Vegetable Markets).  
 7.40—Mr. J. G. Lockley, will talk on "Old Bushman Stories."

## NIGHT SESSION.

7.55—The Chimes of 2FC and Announcements.  
 8.—The Chimes of "Big Ben"; Announcements of a programme which is being conducted at the Hotel Canberra for the entertainment of the British Empire Delegation.  
 8.—Broadcast from the Haymarket Theatre, Sydney; Overseas Orchestras, under the baton of Mr. Stanley Parker.  
 8.25—Miss Jean Grant, soprano.  
 8.29—Mr. R. M. Baxter, baritone.  
 8.33—Jenett's Trio, in Zylphoebe numbers.  
 8.45—Mr. Fred Harman, baritone.  
 8.47—Capt. Geoffrey Hughes, President of the Astra Club, will talk on "Flying."  
 9.—Mr. R. M. Baxter, baritone.  
 9.3.—Broadcast from the Westworth Hotel, Sydney, vocal act.  
 9.30—From the Studio; Miss Jean Grant, soprano.  
 9.35—Tilton and West; The Joy Boys.  
 9.40—Mr. Nevin Fossano; Radio Poster Drawing.  
 9.45—Mr. Fred Harman, baritone; Bois de la Vieilles.  
 9.50—Jenett's Trio.  
 10.—Miss Jean Grant, soprano and Mr. R. M. Baxter, baritone; Duets: Let Me Go.  
 10.15—Tilton and West; The Joy Boys.  
 10.15—Mr. R. M. Baxter, tenor, A duet.  
 10.20—Duet Miss Jean Grant and Mr. R. M. Baxter; Marchionna (Schubertinger).  
 10.25—Broadcast from the Westworth Hotel, Sydney; Westworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.

## 2 BL

## EARLY MORNING SESSION.

7.15—Physical Training and Health Exercises.  
 7.25—Broadcaster's Special Drawing.  
 7.45—Physical Training and Health Exercises.  
 8.—G.P.O. Clock and Chimes. Close down.  
 MORNING SESSION.  
 10.—G.P.O. Clock and Chimes; Musical Programme from the Studio.  
 10.10—Special News Service from the "Daily Telegraph."  
 10.35—Musical Programme from the Studio.  
 10.45—Special News Service from the "Daily Telegraph."  
 11.—G.P.O. Clock and Chimes; Market reports.  
 11.10—Musical Programme from the Studio.  
 11.25—Broadcaster's information service, including mail, boats in sail by wireless, shipping, weather and rainfall.  
 11.40—Women's Section; Social notes by Mrs. Jordan.  
 1.15—Mrs. Jordan replies to correspondents.  
 12.—G.P.O. Clock and Chimes; a talk by Mrs. B. Jordan on "Home Remedies."  
 12.30—A talk by Miss Helen Jean Doughton.  
 12.50—Rugby Stock Exchange Calls.  
 12.55—Hilber's Instrumental Quartette, under the direction of Cayp D'Aring.  
 1.30—Sydney Stock Exchange calls.  
 1.45—Latest sporting information from the Sun.  
 2.—G.P.O. Clock and Chimes. Close down.

## AFTERNOON SESSION.

Raising information broadcast by courtesy of "The Sun."  
 1.—G.P.O. Clock and Chimes. Weather report and Social Notes from the "Sun."  
 1.15—David Jones' Tea Room Trio.  
 1.30—"A Course in Philosophic Thought," by Mr. J. M. Prentice.  
 2.45—Musical Programme from the Studio.  
 4.—G.P.O. Clock and Chimes. David Jones' Tea Room Trio.  
 4.15—Musical Programme from the Studio.  
 4.20—Serial story entitled "The Scarlet Cockle," by C. M. Sublette.  
 4.45—Music from the Studio.  
 5.—G.P.O. Clock and Chimes; Producers' Distributive Society's Market Report.  
 5.—Shipping information when available.  
 6.15—Review of night's programme.  
 6.15—G.P.O. Clock and Chimes. Close down.

## EARLY EVENING SESSION.

6.—G.P.O. Clock and Chimes; Uncle George and the Kiddies.

6.45—Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison.

## SPECIAL COUNTRY SESSION.

7.—G.P.O. Clock and Chimes; Australian Mercantile Land Finance Company's Stock, Wool and Hides Report.  
 7.15—Weather report and forecast by courtesy of Mr. C. J. Miles, Govt. Meteorologist.  
 7.25—Stock Exchange reports.  
 7.16—Producers' Distributive Society's Fruit and Vegetable report.  
 7.20—Forecast and Vegetable report (Sun).  
 7.24—Grain and Fodder report (Sun).  
 7.27—Eggs and Poultry report (Sun).  
 7.30—Country News from the Sun.  
 7.47—The tonic taken by the Australian Commonwealth Line of Steamers, dealing with the historical and points of interest en route, by Mr. J. Holmes; close down.

## NIGHT SESSION.

Newtown Band broadcast from Industrial Hall, Newtown; programme from the studio, including Morris and Vase (musical interlude), Miss Dorrie Ward (soprano), soloist, Mr. W. Lewis (baritone), and Miss Eva Rosenkranz (alto/vocalist); Al. Hammett and the Ambassadors' Dance Band broadcast from the ballroom of the Ambassadors until midnight.

## 2 KY

## LUNCHEON HOUR SESSION.

12.15—Luncheon Hour Session; Popular Ten Trio; Musical Interlude, News Item, Hawaiian Steel Guitar Soloists, Union News and Meetings, Vocal Items, Closing down at 1.15 p.m.

## CHILDREN'S HOUR.

6.30—Mr. Thompson.

## EVENING SESSION.

7.30—Time in to the ticking of the clock.  
 7.35—Latest news items.  
 7.40—Industrial and political topics, Mr. J. E. Gardes.  
 7.50—Shipping log.  
 8.—Miss Joyce Hunt, soprano, Miss Nellie Turner.  
 8.20—Musical Programme, Miss Amy Rowland.  
 8.30—Musical Interlude, Palmia Royal Californians, under Mr. Boston (by kind permission of J. C. Bonfield Ltd.).  
 8.35—Special Announcements.  
 9.—Soprano Solo, Miss Ethel Mitchell.  
 9.10—Tenor solo, Mr. Tom O'Connor.  
 9.15—Musical Interlude.  
 9.20—Central solo, Miss Amy Rowland.  
 9.40—Viola solo, Miss Cramer.  
 9.50—Dance Music.  
 10.—Close down.

## 3 LO

## MIDDAY SESSION.

12.—Time Signal, British Official Wireless News from Rugby; Reuters and the Associated Press Association Cables; "Argus" and "Herald" News Service; Shipping Intelligence.  
 12.15—Shipping Intelligence, Stock Exchange Intelligence.  
 12.50—Meteorological information, Weather Forecasts for Victoria, Tasmania, South Australia and New South Wales. Ocean Forecast, Biver reports.  
 1.—Time signal.  
 1.15—Studio Orchestras.  
 1.16—Elsie Davles, soprano.  
 1.17—Aeris Fortuna, piano.  
 1.24—Strain Trio.  
 1.30—Elsie Davles, soprano.  
 1.37—Studio orchestra.  
 1.40—Topsy and the Gables, viola.  
 2.—Bunch of races, Richmond Trotting. Close down.

## AFTERNOON SESSION.

3.—Studio Orchestras.  
 3.15—Bruce Green, famous pantomime king, in selection from his repertoire, by permission of J. C. Williamson Ltd.  
 3.23—Dorothy Silk, "Homecrafts."  
 3.27—Walter Smith, cornet solo.



- 3.14—Charles Pope, Kolored Kumedy Krom.
- 3.52—Studio Orchestra.
- 4.3—Miss Flora Pidd, Supervisor Domestic Arts, Education Department, Domestic Economy.
- 4.17—Bruce Green will once again entertain you.
- 4.22—Hertha Jorgensen, violin.
- 4.30—Studio Orchestra.
- 4.45—"Herald" News Service; Stock Exchange information. Racing results of Richmond training will be given as they come to hand.

**EARLY EVENING SESSION.**

- 5—Children's Radio Voice Competition, Voice Triads.
- 5.45—Children's Hour. Answers to letters with helpful suggestions.
- 6—May Alberta, soprano.
- 6.7—"Little Miss Kookaburra" will tell the story told a dear little story about "Miss Mouse going to a Wedding."
- 6.17—May Alberta, soprano.
- 6.22—"Little Miss Kookaburra" will tell the tenth instalment of "The Girl Who Played the Game."
- 6.40—"Arcus" and "Herald" News Services; Reviews and the Australian Press Association Gahon.
- 6.53—Weather synopsis, Shipping movements, Overseas Shipping.
- 7—Stock Exchange information.
- 7.2—Fish Market Reports, by J. R. Boreett Ltd.
- 7.6—River reports, Aerial mail information by Australian Aerial Services.
- 7.8—Market reports by the Victorian Producers Co-operative Co. Ltd.; Haymarket, sheep sales, poultry, grain, cattle, hay, straw, late dairy produce, potatoes, and onions. Market prices of oranges and lemons, by the Victorian Central Citrus Association Pty. Ltd.

**NIGHT SESSION.**

- 7.50—Under the auspices of the Develop Australia League, Mr. J. P. Brady on "The Kangaroo Bears on Talking."
- 8—Under the auspices of the Department of Agriculture, Mr. W. C. Russ, Poultry Expert, "Feeding for Egg Production."
- 8—Dr. Floyd, organ, recital, transmitted from St. Paul's Cathedral.
- 8.45—Elsie Davies, soprano.
- 8.53—Victorian Railways Institute Military Band.
- 9.2—Rev. Eaton, tenor.
- 9.3—Victorian Railways Institute Military Band.
- Interlude.
- 9.15—Hon. Theodore Pink, Sixty-six years in Victoria.
- 9.30—Royal Victorian Institute for the Blind Jazz Orchestra.
- 9.40—Bruce Green, famous pantomime dame, in selections from his repertoire, by permission of J. C. Williamson Ltd.
- 9.50—Royal Victorian Institute for the Blind Jazz Orchestra.
- 10—Mr. B. (Patty) Lamb, Australian Champion Cyclist and World's record holder for 10 miles motor cycle. "Training for Cycling."
- 10.15—Elsie Davies, soprano.
- 10.17—Victorian Railways Institute Military Band.
- 10.27—Svd. L. Eaton, tenor.
- 10.34—"Arcus" news service. Announcements. British Official Wireless news from Rugby. Weather forecast, Ballarat Competition results.
- 10.44—Victorian Railways Institute Military Band.
- 11—Our Great Thought for To-night: "There is no mortal truly wise and restless at once; wisdom is the repose of minds" (Lavater).
- 11.1—Ham Johnson's Monte Carlo Band.
- 11.40—God Save the King.

**3 AR**

**MORNING SESSION.**

- 11.30—The British Official Wireless Press, re-

- ceived from Rugby Super Wireless Station, England, by 3AR's Operator; Express Train Information; The Age News Bulletin.
- 12—Time Signal Chime from G.P.O.; Studio Barometer and Outdoor Thermometer Readings; 1st Weather Forecast; Events of the day.
- 12.5—Musical Selections, relayed from Hoyt's de Luxe, Bourke Street, Mr. T. L. Campbell at the organ.
- 12.30—Stock Exchange News, Market reports.
- 12.40—Musical Selections.
- 12.55—Mail Notices; Shipping Movements.
- 1—Close down.

**AFTERNOON SESSION.**

- Richard Trotting Meeting. Results immediately after each race, and at half-hourly intervals.
- 2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Brien; Special Matinee for Children in Hospital.
- 3—Auntie Ethel, Uncle Ron and Uncle Bert will tell you about a spinning top, and they play a riddle, a violin and a piano.
- 3.15—Auntie Violette has brought 7 dear little girls along, Nina Black, who knows a funny story about a Baldheaded Man, Dorothy Gulle (who is only 7 years old) will sing a little song, Dream On; and Elsie Franklin, who will tell you her troubles with Pines and Puss.
- 3.25—And now Auntie Violette will tell you about the things you'll see at night if you don't go to sleep when Nurse tells you.
- 3.32—"We'll ask Auntie Ethel and Uncle Ron and Uncle Bert to play some more."
- 3.35—Nina Black wants to talk to you again.
- 3.45—Now I think you should have 40 winks before tea time, so Uncle Ron, Uncle Bert and Auntie Ethel will play "Close your Eyes."
- 4—Time Signal Chime; 2nd Weather Report; Hoyt's Premier Orchestra.
- 4.55—Evening Amusement Guide.
- 5—Time Signal Chime, Studio Barometer Readings. Close down.

**EARLY EVENING SESSION.**

- 6.45—The Children's Corner, by Uncle Red

**NIGHT SESSION.**

- 7.50—Studio Barometer Readings; British Official Wireless Press.
- 8—Time Signal Chime.
- 8.12—The Cyphids Instrumental Trio.
- 8.13—Miss Maudie Potter (contralto).
- 8.15—Mr. Frank Cortes, humorous musical monologue.
- 8.24—Mr. Tom Reilly (baritone).
- 8.31—Mr. A. J. Sullivan, talk: Lost in the Australian Bush.
- 8.45—Vocal Duo! Miss Phyllis Bateman and Mr. Tom Reilly (baritone).
- 8.51—The Cyphids Trio.
- 9.1—Miss Phyllis Bateman (soprano).
- 9.1—One Act Play, Safety First.
- 9.30—Miss Maudie Potter (contralto).
- 9.37—Mr. Tom Reilly (baritone).
- 9.54—Miss Therese Crose (violinist).
- 9.41—Vocal Duo! Miss Phyllis Bateman and Mr. Tom Reilly.
- 9.45—Mr. Lillian Joseph (abandonist).
- 9.53—Miss Phyllis Bateman (soprano).
- 10—Time signal chime from G.P.O., Studio barometer readings. "Age" news service, exclusive to 3AR.
- 10.5—Hoyt's Premier Orchestra.
- 10.40—Close Down.

**5 CL**

**MORNING SESSION.**

- 11.50—G.P.O. Chimes.
- 11.51—Featuring a Stock Duo Art Number.
- 11.40—"Advertiser" News Service.
- 11.55—Vocalion number.
- 12—G.P.O. Chimes.
- 12.1—"Advertiser" News Service and Chicket scores.
- 12.15—Featuring a Stock Duo Art Number;
- 12.30—5CL Studio Orchestra will be heard in a series of classical numbers.
- 1.55 (approx.)—Ward & Co.'s Stock Exchange

- Intelligence; Weather Reports and Station Announcements.
- 2—G.P.O. Chimes.

**AFTERNOON SESSION.**

- 3—G.P.O. Chimes.
- 3.1—Relay from "Maple Leaf" Cafe—Orchestral numbers.
- 3.45—From the Studio—Vocalion Numbers.
- 4—G.P.O. Chimes.
- 4.1—Broadcast from "Acrasia" Cafe—Orchestral numbers.
- 4.55—Stock Exchange Reports, General Information, and Station Announcements.
- 5—G.P.O. Chimes.

**NIGHT SESSION.**

- 6.50—G.P.O. Chimes.
- 6.51—Bedtime Stories, by "Auntie Peggy."
- 7.30—Market Reports.
- 7.55—Dentists Talk, by Mr. Dunger.
- 8—Dance Music, relayed from Palais Royal, interspersed with vocal items from studio.
- 9.1—Weather Reports.
- 9.3—Studio Concert, continued.
- 10.15—Advertiser News Service and ships within wireless range.
- 10.25—Station Announcements.
- 11—G.P.O. Chimes; National Anthem, and Close down.

**7 ZL**

**MORNING SESSION.**

- 11—G.P.O. Clock Chime. "The Mercury" news, Stock Market, Shipping, Commercial Intelligence, Weather Information and Selections on the Salento.
- 12—G.P.O. Clock Chime. Close down.

**AFTERNOON SESSION.**

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

**EARLY EVENING SESSION.**

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

**NIGHT SESSION.**

- 8—G.P.O. Clock Chime. "The Mercury" special Tasmanian news service, Railway Station produce sales, Weather Information.
- 8.8—Hobart Stock Exchange quotations.
- 8.10—Lecture under the auspices W.E.A.
- 8.30—Concert from the studio under the direction of Miss Ruby Pines.
- 8.50—"The Mercury" special Interstate news service. Weather synopsis. Station announcements. National Anthem.



**Tuesday, Oct. 12**

**2 FC**

**EARLY MORNING SESSION.**

- 7—Time signals. The Chimes of "Big Ben" and Announcements.
- 7.5—Music from the Studio.
- 7.10—Weather information, commercial news, shipping intelligence, rainfall, temperatures, astronomical memoranda. Mail services.
- 7.25—Investment market, mining shares market, metal quotations.
- 7.55—"Wool sales, breadstuffs markets, produce markets.
- 7.45—"Sydney Morning Herald" news service.
- 8—The Chimes of "Big Ben." A "Cherico" talk by Mr. J. K. Powell.
- 8.15—Close down.

**MORNING SESSION.**

- 9.15—The Chimes of 2FC and Announcements.
- 9.20—Music from the studio.

- 10.—Chimes of "Big Ben" Mined from the Studio.  
 10.5.—Latic "Sydney Morning Herald" news service.  
 10.15.—Music from the Studio.  
 10.40.—A Morning Reading.  
 11.—Chimes of "Big Ben." Announcements.  
 11.5.—Australian Peas Association and Butcher's Cable Services. Last minute sporting information by the ZFC Racing Commissioner.  
 12.10.—A Talk on Home Cooking and Recipes, by Miss Ruth Farat.  
 11.30.—Close down.

## MIDDAY SESSION.

- 12.—Time Signals, Chimes of "Big Ben" and Announcements.  
 12.5.—Stock Exchange—First Call.  
 12.10.—Music from the Studio.  
 12.30.—Marriage Music for School Children.  
 12.40.—From Farmer's Tea Rooms: The Oak Hall Trio.  
 12.50.—Rugby Wireless News.  
 12.55.—Miss Gladys Briggs, contralto.  
 1.—Chimes of "Big Ben." Announcements. Weather information.  
 1.10.—"Evening News" midday news service. Producer's Distributing Society's Report.  
 1.15.—Music from the Studio.  
 1.25.—From Farmer's Tea Rooms: The Oak Hall Trio.  
 1.30.—Stock Exchange, Second Call.  
 1.35.—Miss Gladys Briggs, contralto.  
 1.40.—Music from the Studio.  
 1.50.—From Farmer's Tea Rooms: The Oak Hall Trio.  
 2.—The Chimes of "Big Ben." Close down.

## AFTERNOON SESSION.

- 2.30.—Chimes of ZFC and Announcements.  
 2.35.—A recital by the pupils of Mr. St. Quentin Downer.  
 3.00.—Marriage Music for the School Children.  
 3.10.—Miss Percia Butler, soprano.  
 3.15.—From Farmer's Tea Rooms: The Oak Hall Trio.  
 3.25.—Music from the Studio.  
 3.—From "The Sun" News Service.  
 4.—Miss Thelma Lambson, mezzo.  
 4.15.—Music from the Studio.  
 4.20.—Miss Percia Butler, soprano.  
 4.25.—The Oak Hall Trio.  
 4.30.—Music from the Studio.  
 4.40.—Miss Thelma Lambson, mezzo.  
 4.45.—Stock Exchange, Third Call.  
 4.50.—Close down.

## EARLY EVENING SESSION.

- 5.45.—The Chimes of "Big Ben" and Announcements.  
 5.50.—The "Holla Man" talks to the children.  
 5.55.—A serial story for the older children.  
 6.—Broadcast from the Royal Australian Orchestral Items.  
 7.15.—From the Studio: "Evening News" late news service, weather, information.  
 7.30.—Dairymen's Market Reports: wool, wheat, stocks, fruit and vegetable markets.

## NIGHT SESSION.

- 7.40.—From the Rodney Town Hall, items from the Annual London College of Music Concert.  
 8.30.—From the Studio: A programme, arranged at the request of the Federal Capital Commission, for the benefit of the British Empire Delegation, who are being entertained in the Hotel Canberra by the Commonwealth Government.  
 (a) "Advance, Australia Fair."  
 (b) "Rule Britannia."  
 8.40.—Mr. Scott Sanders, the well-known Scotch comedian (by courtesy of the Theatrical Ltd.).  
 8.50.—Mr. Wilfrid Thomas, basso.  
 8.54.—Mr. Russell Callow, tenor.  
 8.58.—Mr. Lionel Lawson, violin solos.  
 8.59.—ZFC 16-Voice Choir.  
 9.—Mr. Wilfrid Thomas, basso.  
 9.12.—Mr. Russell Callow, tenor.  
 9.15.—Mr. Scott Sanders, Scotch-comedian.  
 9.25.—Mr. Lionel Lawson, violin solos.

- 9.34.—Mr. Wilfrid Thomas, basso.  
 9.42.—Major Hunter, steel guitar items.  
 9.52.—Mr. Russell Callow, tenor.  
 9.58.—Broadcast from the Lyric Wintergarden, orchestral items.  
 10.50.—From the Studio: Mayo Hunter, steel guitar items.  
 10.40.—Broadcast from the Wentworth Hotel, Sydney—Wentworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.  
 12.—National Anthem. Close down.

## 2 BL.

## EARLY MORNING SESSION.

- 7.18.—Physical Training and Health Exercises.  
 7.30.—Broadcasters' Social News Service.  
 7.40.—Physical Training & Health Exercises.  
 8.—G.P.O. Clock and Chimes Close down.  
 MORNING SESSION.  
 10.—G.P.O. Clock and Chimes, musical programme from the Studio.  
 10.10.—Special News Service from the "Daily Telegraph."  
 10.25.—Musical Programme from the Studio.  
 10.30.—Special News Service from the "Daily Telegraph."  
 11.—G.P.O. Clock and Chimes: Market Reports and London Market Quotations.  
 11.10.—Musical Programme from the Studio.  
 11.25.—Broadcasters' Special Information Service, including: mails, shipping, weather, rainfall.  
 11.50.—Women's Section: Social Notes, by Mrs. Jordan.  
 11.55.—Mrs. Jordan replies to correspondents.  
 12.—G.P.O. Clock and Chimes: Mrs. Jordan will talk on the "Care of Old Plants."  
 12.25.—A talk by Miss Helen Jean Boswell.  
 12.30.—Sydney Stock Exchange Calls.  
 12.45.—Miller's Instrumental Quartet, December "Carey" Gaudin; 1st violin, Miss Vera Wareham, Obligato Violin, Mr. Jack West, Cello, Miss Daisy Nating.  
 1.30.—Sydney Stock Exchange Calls.  
 1.45.—Latest Sporting Information and News from "The Sun."  
 2.—G.P.O. Clock and Chimes. Close down.

## AFTERNOON SESSION.

- During the Afternoon results of races will be broadcast immediately after each race by courtesy of "The Sun" Newspapers.  
 2.—G.P.O. Clock and Chimes: Weather Report and Social Notes from "The Sun."  
 3.15.—Civil Service Stores' Trio, under the direction of Miss De Carse Bremer.  
 3.30.—"Talk on Modern Psychology" by Mr. J. M. Prentice.  
 3.45.—Musical Programme from the Studio.  
 4.—G.P.O. Clock and Chimes: Civil Service Stores' Trio.  
 4.10.—Musical Programme from the Studio.  
 4.30.—Serial Story, entitled, "The Scarlet Cock" (sketches).  
 4.45.—Musical programme from the studio.  
 5.—G.P.O. Clock and Chimes: Producer's Distributing Society's Market Report.  
 5.—Shipping Information, when available.  
 5.10.—Resume of night programme.  
 5.15.—G.P.O. Clock; close down.

## EARLY EVENING SESSION.

- 6.—G.P.O. Clock and Chimes: Uncle Jack and the Kiddies.  
 6.10.—Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison.  
 SPECIAL COUNTRY SESSION.  
 7.—G.P.O. Clock and Chimes: Australian Mercantile Land and Finance Co's. Stock, Wool and Hide Report.  
 7.5.—Weather Report and Forecast, by courtesy of Mr. T. J. Meece, Govt. Meteorologist.  
 7.30.—Stock Exchange Reports.  
 7.15.—Producers' Distributing Society's Fruit and Vegetable Report.  
 7.30.—Fruit and Vegetable Report (Sun).  
 7.45.—Grain and Poultry Report (Sun).  
 7.57.—Egg and Poultry Report (Sun).  
 7.30.—Country News from the Sun.  
 7.45.—A Lecture.  
 8.—G.P.O. Clock and Chimes; close down.

## EVENING SESSION.

- Classical Programme from the Studio, including Broadcasters' Ministry Orchestra

- under the direction of Mr. Knight Barnett, Miss Gladys Verina (soprano), Mr. Lance Jeffrey (tenor), Miss Heather Kitson (contralto), Miss Dorothy Whit (piano), Mr. H. Hinchcliffe (orchestra).  
 11.5.—Paragon Orchestra, under the direction of Mr. Bennett, until midnight.

## 2 KY.

## LUNCHEON HOUR SESSION.

- 11.15.—Popular Fox Trots, Musical Interlude, News Items, Hawaiian Steel Guitar Selections, Union News and Meetings, Vocal Items. Closing down at 1.15 p.m.  
 AFTERNOON SESSION.  
 2.15.—Time in to ticking of clock.  
 2.18.—Popular Fox Trots.  
 2.20.—Short Story.  
 2.45.—Musical Interlude.  
 2.—Popular Selections Talk, Mr. A. T. Keble.  
 3.15.—Hawaiian Steel Guitar Selections.  
 3.25.—Musical and Vocal Items.  
 3.40.—Where to go to-night.  
 4.7.—Close down.

## CHILDREN'S HOUR.

- 5.30.—Mr. Thompson.  
 EVENING SESSION.  
 7.20.—Time in to the ticking of the clock.  
 7.33.—News Items.  
 7.40.—Lecture in Esperanto, Mr. F. T. Simon.  
 7.50.—Shipping Log.  
 8.—Pianoforte solos, Mr. Eben Bedford.  
 8.10.—Tenor solo, Mr. A. J. Johnson.  
 8.30.—Musical soprano solo, Miss Helen Cameron.  
 8.30.—Musical Interlude, by Palais Royal Calligrapher Walter Beahan, leader, by kind invitation of J. C. Bendall (Ld.).  
 8.50.—Social announcements.  
 9.—Soprano solo, Miss Mabel Carroll.  
 9.10.—Items from Melbourne Leichhardt Studios.  
 9.30.—Request Lincoln Records.  
 9.50.—Musical Interlude: Palais Royal Calligrapher.  
 10.—Close down.

## 3 LO.

## MIDDAY SESSION.

- 12.—Time Signal; British Official Wireless News from Rugby; Reuters and the Australian Press Association Cables "Argo" and "Herald" News Services.  
 Shipping Intelligence Information.  
 12.30.—Stock Exchange Information. Weather forecasts for Victoria, Tasmania, South Australia and New South Wales. Great forecast. Close reports.  
 1.—Time Signal.  
 1.1.—Studio Orchestra.  
 1.10.—Gusto Barham, contralto.  
 1.17.—Hector Jermans, violin.  
 1.24.—Stratton Piers Quartet.  
 1.34.—Gene Barham, contralto.  
 1.40.—Studio Orchestra.  
 1.50.—Franklin Drahman, clarinet.  
 2.—Close down.

## AFTERNOON SESSION.

- 3.—Will Page and his Popular Players.  
 3.10.—Fred Monte, baritone.  
 3.17.—"An Fall of Mavra, Buckley and Nune Ltd. will give a Fashion Talk.  
 3.20.—Will Page and his Popular Players.  
 3.30.—Charles Pope, Edward Kennedy Club, in a few moments of fun.  
 3.45.—Matron Moreland, "Infant Welfare."  
 4.12.—Will Page and his Popular Players.  
 4.25.—Fred Monte, baritone.  
 4.40.—Will Page and his Popular Players.  
 4.45.—"Herald" News Service; Stock Exchange Information.  
 5.—Children's Radio Song Competition; Voice Trials.

## EARLY EVENING SESSION.

- 8.45.—Children's Hour. Answers to letters and Birthday Greetings.  
 9.—Max Alberta, soprano.  
 9.7.—"Mary Gmelch." Poems: "Toby," "Play-



- ing School." Story for the little ones. "The Three Bears."
- 6.7—May Alberta, soprano.
- 6.8—"Mary Gumbel's" Story for the boys and girls. "A Day at the Victorian Institute for the Blind."
- 6.9—Reviews and the Australian Press Association columns "Argue" and "Herald" News Services.

EVENING SESSION.

- 6.53—Weather synopsis. Aerial mail information for the Australian Aerial Services Ltd.
- 7—Stock Exchange information. Overseas shipping news.
- 7.4—Fish market reports, by J. R. Borretti Ltd.
- 7.6—Hiver reports.
- 7.8—Market reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sales, poultry, grain, chaff, hay, straw, jute, dairy produce, potatoes, and onions.

NIGHT SESSION.

- 7.20—Miss E. K. Seward, will give a French talk.
- 7.40—Under the auspices of the University Extension Board, Miss Enid Dehnan. "Popular Superstitions."
- 8—Lecture on Beethoven, by Mr. Fritz Hart, illustrated by the following artists: Jean Hamblton, soloist; Margot Metibbon, violinist; Margaret McGibbon and Ida Scott, violin and piano; Ida Scott, accompanist.
- 9—Dr. Ludus Hills. "Popular Science."
- 9.15—Mr. A. S. Kennerley, Sec. Australian Amateur Bowling Council, "Amateur Bowling as a Sport."
- 9.30—Bert Howell and his Concert Orchestra, transmitted from the Victory Theatre, 22, Hill.
- 10.40—"Arcus" news service, British Official Wireless news from Rugby. Announcements. Weather forecast. Competition results from Ballarat.
- 11—(Our Great Thought for tonight is: "No entertainment is so cheap as reading, nor any pleasure so lasting.")—Lady M. W. Montagu.
- 11.15—Ham Johnson's Monte Carlo Orchestra.
- 11.40—God Save the King.

3 AR

MORNING SESSION

- 11.30—The British Official Wireless Press, received from Rugby Super wireless station, England, by 3AR's operator. Express train information. "Ace" News bulletin.
- 12.0—Time signal from G.P.O.; events of the day; Studio Barometer Readings and Outdoor Thermometer Readings; 1st Weather Forecast; Events of the Day.
- 12.5—Musical Selections relayed from Hoyt's de Luxe, Bourke Street, Mr. T. L. Campbell at the Wurlitzer.
- 12.30—Stock Exchange News; Market Reports.
- 12.40—Musical Selections.
- 12.55—Mail Notices; Shipping Movements.
- 1—Close down.

AFTERNOON SESSION.

- 2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Reim.
- 3—Mr. Walter Quirke (solo pianist).
- 3.5—Miss Gwen Lorely (humorous entertainer at the piano).
- 3.14—Master Albert Troughart (violinist).
- 3.21—Miss Ruby Bishop (contralto).
- 3.28—Mr. Tom B. Carrol (baritone).
- 3.35—Mr. Walter Quirke (pianist).
- 3.42—Miss Gwen Lorely (entertainer).
- 3.49—Master Albert Troughart (violinist).
- 3.56—Miss Ruby Bishop (contralto).
- 4.3—Mr. Tom B. Carrol (baritone).
- 4.10—Hoyt's Premier Orchestra.
- 4.15—Evening Amusement Guide.
- 5—Time Signal Chime; Studio Barometer Readings; 2nd Weather Forecast; Close down.

EARLY EVENING SESSION.

- 6.45—The Children's Corner, by Brother Steve.

NIGHT SESSION.

- 7.45—The British Official Wireless Press; Studio Barometer Readings; Sheep and Cattle Report, supplied by Messrs. John McNamara & Co., Ltd.
- 8—Time Signal Chime from G.P.O.; A night with the Troubadours and their Southern Plantation Melodys.
- 8.2—The Troubadours.
- 8.16—Mr. Gerald Whitten (baritone).
- 8.23—Mr. Arthur Wilson will speak on Amateur Athletics.
- 8.37—Miss Beatrice Phillips (soprano).
- 8.44—Miss Beatrice Phillips (violinist).
- 8.51—Messrs. Jack Craig and Gerald Whitten, vocal duet; Misses Rosina Downs and Mariet Burton, vocal duet.
- 8.53—The Troubadours.
- 9.12—Miss Mariet Burton, contralto.
- 9.19—Mr. H. E. Wilson: "The Young Executive by Bulmer."
- 9.25—Miss Beatrice Phillips (violinist).
- 9.40—Mr. Jack Craig (tenor).
- 9.47—The Troubadours.
- 10.0—Time Signal from G.P.O.; Studio Barometer Readings; "Ace" News Bulletin.
- 10.10—Lockett's Ballroom Orchestra, under leadership of Mr. H. Nangle.
- 11—Time Signal Chime. Close down.

5 CL

MORNING SESSION.

- 11.30—G.P.O. Chimes.
- 11.31—Featuring a Stock Duo Art Number.
- 11.40—"Advertiser" News Service.
- 11.55—Vocalion number.
- 12—G.P.O. Chimes.
- 12.1—"Advertiser" News Service and Cricket scores.
- 12.15—5CL Studio Orchestra will be heard in a series of classical numbers.
- 1.05 (approx.)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.
- 2—G.P.O. Chimes.

AFTERNOON SESSION.

- 3—G.P.O. Chimes.
- 3.1—Music from "Maple Leaf" Cafe—Orchestra numbers.
- 3.45—From the Studio: Vocalion Numbers.
- 4—G.P.O. Chimes.
- 4.1—Broadcast from "Arcadia" Cafe—Orchestra numbers.
- 4.55—Stock Exchange Reports, General Information and Station Announcements.
- 5—G.P.O. Chimes.

NIGHT SESSION.

- 6.30—G.P.O. Chimes.
- 6.51—Bedtime stories.
- 7.46—Milking talk by Mr. Jarkett.
- 8—G.P.O. Chimes.
- 8.1—Cadenza Quartette, interspersed with vocal items from studio.
- 9—G.P.O. Chimes.
- 9.1—Weather Reports.
- 9.3—Studio Concert, continued.
- 10.35—Advertiser News Service.
- 10.38—Studio Concert, continued.
- 10.55—Station Announcements.
- 11—G.P.O. Chimes; National Anthem.

7 ZL

MORNING SESSION.

- 11—G.P.O. Clock Chimes. "The Mercury" commercial intelligence. Weather information and Shipping; Salomola Selections.
- 12—G.P.O. Clock Chimes; Close down.

AFTERNOON SESSION.

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

EARLY EVENING SESSION.

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

- 7.35—The adventures of George the Bosh-shelf Cat. "The return of Tweedle Dum and Tweedle Doo," by "Aunt Stella."

NIGHT SESSION.

- 8—G.P.O. Clock Chimes. "The Mercury" special Tasmanian news service. Railway auction produce sales. Weather information.
- 8.40—Robert Stock Exchange quotations.
- 9.10—Literary Lapses and Library Lists, by Mr. W. E. Falter.
- 9.35—Musical items from the Studio: special request numbers.
- 9.50—"The Mercury" special Interstate news service. Weather synopsis. Station announcements. Close down. National Anthem.



Wednesday, Oct. 13

2 FC

EARLY MORNING SESSION.

- 7—The Chimes of "Big Ben" and Announcements.
- 7.5—Music from the Studio.
- 8.10—Weather information, commercial news, shipping intelligence, rainfall, temperatures, astronomical phenomena.
- 8.25—Investment Market. Mining Share Market. Metal quotations.
- 8.35—Wool sales, breadstuffs markets, produce markets.
- 7.45—"Sydney Morning Herald" news service.
- 8—The Chimes of "Big Ben" and Announcements. Chorus Talk by Mr. J. K. Powell.
- 8.15—Close down.

MORNING SESSION.

- 9.15—The Chimes of 2FC and Programme Announcements.
- 9.20—Music from the Studio.
- 10—The Chimes of "Big Ben" Music from the Studio.
- 10.5—Late "Sydney Morning Herald" news service.
- 10.15—Music from the Studio.
- 10.45—A Morning Reading.
- 11—The Chimes of "Big Ben."
- 11.5—Australian Press Association and Reader's Cable Services.
- 11.15—Cooking Talk and Recipes by Miss Ruth Furst.
- 11.30—Close down.

MIDDAY SESSION.

- 12—Time signals. Chimes of "Big Ben" and Announcements.
- 12.5—Stock Exchange, first call.
- 12.40—Oak Hall Trio.
- 12.50—Rugby Wireless News.
- 1—The Chimes of "Big Ben" Weather information. Producer's Distributing Society's Report.
- 1.3—"Evening News" midday news service; 1.20—Music from the Studio.
- 1.35—Oak Hall Trio.
- 1.45—Stock Exchange, second call.
- 1.53—Music from the Studio.
- 1.55—Oak Hall Trio.
- 2—Close down.

AFTERNOON SESSION.

- 2.30—The Chimes of 2FC and Announcements. Music from the Studio.
- 2.50—A Dickens' reading, by Mr. A. S. Cockburn.
- 3.15—From the Conservatorium Hall, a recital by Mr. Walter Hunt, elocutionist.
- 3.40—From Farmer's Tea Rooms: Miss Beale Cook, contralto.
- 3.45—From Farmer's Tea Rooms: The Oak Hall Trio.
- 3.55—Music from the Studio.

- 6.—From Farmer's Tea Rooms: Miss Eileen Crowley, soprano.  
 4.5.—Music from the Studio.  
 4.20.—From Farmer's Tea Rooms: Miss Jessie Cook, contralto.  
 4.25.—The Oak Hall Trio.  
 4.30.—Music from the Studio.  
 4.40.—From Farmer's Tea Rooms: Miss Eileen Crowley, soprano.  
 4.45.—Stock Exchange, Third Call.  
 4.45.—Music from the Studio.  
 5.—Chimes of "Big Ben." Close down.

## EARLY EVENING SESSION

- 5.45.—The Chimes of 2FC and Announcements. The "Hello, Mum" talks to the children, assisted by "Jerry."  
 6.00.—A story for the grown up boys and girls.  
 6.10.—Broadcast from the Hotel Australia, Sydney: Heard by the orchestra (directress Miss A. J. Fegan).  
 7.15.—From the Studio: Late "Evening News" news service, weather information.  
 7.30.—Daily's Market Reports (wheat, wheat, stock), Fruit and Vegetable Markets.  
 7.40.—Talk on "The Structure of Exports" by Mr. J. N. Edmonds.  
 7.45.—Announcements.  
 8.—The Chimes of "Big Ben."

## NIGHT SESSION

- 8.15.—From the Conservatorium Hall, the third concert of the 1926 series by the Royal Sydney Apollo Club. Mr. Arnold Muir, conductor.  
 8.15.—Soprano.  
 8.24.—Violinist.  
 8.25.—Baritone.  
 8.42.—Piano Solos.  
 8.45.—Contralto.  
 9.—Piano Solos.  
 9.15.—Interval.  
 From the Studio: Miss Dorcas Walsh.  
 9.20.—From the Conservatorium Hall, Sydney: Second part of the Royal Apollo Club's concert.  
 10.15.—From the Studio: Miss Dorcas Walsh.  
 10.25.—Comedian.  
 10.45.—2FC Dance Band.  
 10.50.—Comedian.  
 11.—2FC Dance Band.  
 11.30.—Broadcast from the Wentworth Hotel, Sydney, Wentworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.  
 12.—National Anthem: Close down.

## 2 BL

## EARLY MORNING SESSION

- 7.15.—Usual Early Morning Session.

## MORNING SESSION

- 10.—Usual Morning Programme.

## AFTERNOON SESSION

- During the afternoon Race Results will be broadcasted immediately after the race.  
 3.—G.P.O. Clock and Chimes; Weather Report and Special Notes from "The Sun."  
 3.15.—Special Overall Session with explanatory talk by Mr. J. M. Prentiss. Illustrated with specially selected musical items.  
 4.45.—Music from the Studio.  
 4.—G.P.O. Clock and Chimes; Music from the Studio.  
 4.30.—Serial Story, entitled "The Scarlet Cuckoo" by C. M. Sublette.  
 4.45.—Music from the Studio.  
 5.—G.P.O. Clock and Chimes; Producers' Distributing Society's Market Report.  
 5.10.—Shipping Information.  
 5.15.—G.P.O. Clock and Chimes. Close down.

## EARLY EVENING SESSION

- 5.—G.P.O. Clock and Chimes; Uncle George and the Kid.  
 6.45.—Pavilion Diner Orchestra, under the direction of Cec. Morrison.  
 SPECIAL COUNTRY SESSION  
 7.—G.P.O. Clock and Chimes; Australian Mercantile Loan & Finance Co.'s Stock, Wool and Hide Reports.  
 7.5.—Weather Report and Forecast.  
 7.30.—Stock Exchange Reports.  
 7.15.—Producers' Distributing Society's Fruit

- and Vegetable Reports.  
 7.20.—Fruit and Vegetable Report (Soli).  
 7.25.—Grain and Poultry Report (Sun).  
 7.27.—Egg and Poultry Report (Sun).  
 7.30.—Country News from the Sun.  
 7.45.—Miss Phyllis Crawhart Wilson L.R.A.M. will talk on "Delicious Fruits."  
 8.—G.P.O. Clock and Chimes: close down.

## EVENING SESSION

- Programme from the Studio, including Brass Quartette.  
 Lecture by Mr. Stanley Critchden, Sydney Orpheus Society, under the direction of Mr. Penman, Sol & Mully Owen in musical novelties. Miss Millie Hughes (soprano), and Mr. Raymond Beatty (baritone), Mr. Howard Leighton (pianist), Al Hammett and the Ambassadors' Dance Band, broadcast from the ballroom of the Ambassadors until midnight. During the interval between dances, news reports by courtesy of the Sun, will be broadcast.

## 2 KY

## LUNCHEON HOUR SESSION

- 12.15.—Popular fox trot, musical interlude, news item, Hawaiian steel guitar selections, Ukulele news and reviews, vocal items closing down 1.45 p.m.

## EVENING SESSION

- 7.—Sporting Feature: Turf Topics. A complete review of today's racing by Mr. T. G. Hopkins.  
 7.30.—News Items.  
 7.40.—Lecturette, Miss Erwin.  
 8.—Pianoforte solo.  
 8.10.—Whistling solo, by Miss Lily Wallace.  
 8.20.—Result of Lawn Tennis Competition.  
 8.30.—Bachian solo, by Mr. A. James.  
 8.40.—Musical interlude; Palace Royal Calisthenics. Mr. Beahan, leader, by kind permission of J. C. Williamson Ltd.  
 9.—Musical announcements.  
 9.—Selections, Hawaiian Steel Guitars.  
 9.10.—Theatre Critiques.  
 9.15.—Month Opera selections, Mr. W. Card.  
 9.25.—Companions solo and ends, Herbert Beatty.  
 9.30.—Piano Solos, Mr. Ray Hamilton.  
 9.40.—Dance Music.  
 10.—Close down.

## 3 LO

## MIDDAY SESSION

- 12 noon.—Time Signals; Report and the Australian Press Association Calles; "Argus" and "Herald" News Services; Shipping intelligence. Stock Exchange information.  
 12.40.—Meteorological information. Weather forecasts for Victoria, Tasmania, South Australia, and New South Wales. Ocean River reports.  
 1.—Time Signal.  
 1.—Bruce Green, the Inimitable, by permission of J. C. Williamson Ltd.  
 1.—Ham Johnson's Monte Carlo Orchestra.  
 1.30.—Bruce Green will entertain you again.  
 1.37.—Result of the Emo Hurdle, Caulfield Races.  
 1.38.—Ham Johnson's Monte Carlo Orchestra.  
 2.—Close down.

## AFTERNOON SESSION

- 4.1.—First act of "Katja," transmitted from Theatre Royal, by permission of J. C. Williamson Ltd.  
 3.—Result of Moss Nursery, Caulfield Races.  
 3.1.—Studio Orchestra.  
 3.5.—Description while race is in progress of Herbert Power Stakes, Caulfield Races.  
 3.—Studio Orchestra.  
 4.1.—Elsie Davies, soprano.  
 4.17.—Rev. A. H. Mitchell, will give a talk.  
 4.37.—Franklin Statham, clarinet.  
 4.37.—Pauline and Joan Allen, duets with ukulele accompaniment.  
 4.44.—Studio Orchestra.  
 5.4.—Result of Moonga Handicap, Caulfield Races.

- 4.55.—Elsie Davies, soprano.  
 4.1.—Shirley Park, "Mothercraft."  
 4.15.—Theresa Tyrann, "Solo."  
 4.20.—Pauline and Joan Allen, duets.  
 4.27.—Result of Congar Handicap, Caulfield Races.  
 4.32.—Studio Orchestra.  
 4.37.—Pauline and Joan Allen, duets.  
 4.45.—"Herald" News Service; Stock Exchange Information.  
 5.—Description while race is in progress.  
 5.—Studio Orchestra.  
 5.5.—Children's Song Competition. Radio Video Trials.

## EARLY EVENING SESSION

- 5.45.—Children's Hour: Answers to letters and "Children's" hour. Dr. Floyd and the choristers from St. Paul's Cathedral.  
 6.30.—Answers to letters and birthday greetings by "Bobby Bloomer."  
 6.40.—"Argus" and "Herald" news services. Report and the Australian Press Association Calles. Shipping movements. Ocean news shipping news. Weather synopsis.  
 7.—Stock Exchange Information.  
 7.7.—Fish Market Reports by J. R. Barrett Ltd.  
 7.8.—River Reports.  
 7.—Market Reports by the Victorian Producers' Co-operative Co. Ltd.; Haymarket Sheep sales; poultry, grain, chaff, hay, straw, tannin, dairy produce, potatoes and onions.  
 Market Prices of oranges and lemons by the Victorian Central Citrus Association Pty. Ltd.

## NIGHT SESSION

- 7.20.—Under the auspices of the Department of Agriculture, Mr. R. Crowe, Entomologist, Superintendent, "Market Comments."  
 7.40.—Mr. C. H. Slocombe, "A Chat on Pesticides."  
 8.—Sir George Egan, F.R.C.S. in connection with the Franch Health Centre, "Cancer."  
 8.45.—Bruce Green, City Municipal Band.  
 8.45.—Frankie Stroukers.  
 8.45.—Theresa Tyrann, "Solo."  
 8.45.—Frankie Stroukers.  
 8.47.—Cocara E. B. Peters, Books, Wine and Otheries.  
 8.15.—Theresa Tyrann, solo solo.  
 8.25.—"Round the Chimney," Music, story and lyrics, grass and ray, by the writers and poets of Australia.  
 8.45.—Remondie City Municipal Band.  
 10.1.—Frankie Stroukers.  
 10.15.—Major Harold John, Chairman of Committee, Ladies' Association, "Announcements in Launceston."  
 10.20.—"Argus" news service. Weather information. British Official Wireless. News. Items. Results of Ballarat Competition.  
 10.30.—Grand Farewell Performance of "Tell Me More," transmitted from The Majestic Theatre, by permission of J. C. Williamson Ltd.  
 11.—Our Great Thought for To-night is "Dispatch in the Soul of Business."—Leta Chesbrough.  
 11.1.—Ham Johnson's Monte Carlo Orchestra.  
 11.40.—God Save the King.

## 3 AR

## MORNING SESSION

- 11.30.—British Official Wireless Press, received from Rugby Super Wireless Station, England, by 3AR's operator. Express Train Information. "Age" News Bulletin.  
 12.—Time Signal. Chime from G.P.O. Studio Harmonium and Outdoor Thermometer Readings. First Weather Forecast. Events of the day.  
 12.5.—Musical selections, relayed from Hoyt's de Luxe, Bourke Street.  
 Mr. T. L. Cayote and Mrs. W. G. Walker.  
 12.30.—Stock Exchange News; Market Report.  
 12.40.—Musical selections.  
 12.55.—Mail notices. Shipping movements.  
 1.—Close down.



## AFTERNOON SESSION.

V.A.T.C. Meeting at Caulfield (second day). Results immediately after each race, and at half-hourly intervals.

- 3.—The Classic Trio.  
 7.16—Mr. Wilfred Kane (tenor).  
 7.22—Miss Arnolda Clancy (violinist).  
 7.32—Mr. Wilfred Kane (tenor).  
 7.37—Mr. Bryan Stafford (cellist).  
 7.44—The Classic Trio.  
 4.—Time Signal Chime from G.P.O. 2nd Weather Forecast. Hoyt's Prommer Orchestra.  
 4.45—Evening Amusement Guide.  
 5.—Time Signal Chime. Studio Barometer Readings. Close down.

## EARLY EVENING SESSION.

- 4.45—The Children's Corner by Uncle Rad.

## NIGHT SESSION.

- 7.45—British Official Wireless Press; Studio Barometer Readings.  
 8.—Time Signal Chime from G.P.O.; Crowning Ceremony. Hawthorn Football Club Queen Carnival relayed from Hawthorn Town Hall; Concert by members of the Commercial Travellers' Concert Party.  
 8.2.—Mr. Bert Hargreaves (baritone).  
 8.15.—Mr. Chas. Nightingall, descriptive song.  
 8.19.—Mr. Harry Lamb (tenor).  
 8.26.—A few moments with Mr. Jack Bell.  
 8.34.—Mr. Bert Hargreaves and Mr. Harry Lamb, duet.  
 8.45.—Mr. Taty Bierni, the Human Piano.  
 8.50.—Mr. Bert Hargreaves (baritone).  
 8.55.—Mr. Chas. Nightingall.  
 9.—L'Opéra's Ballroom Orchestra, relayed during opening ceremony.  
 9.10.—Mr. Harry Lamb (tenor).  
 9.23.—Mr. Jack Bell will again entertain you.  
 10.1.—Here's the Human Piano again, Mr. Taty Bierni.  
 10.5.—Mr. Harry Lamb and Mr. Bert Hargreaves.  
 10.17.—Mr. Chas. Nightingall.  
 10.30.—Mr. Jack Bell will put the final touch on the programme; God Save the King.

## 5 CL

## MORNING SESSION.

- 11.30—G.P.O. Chimes.  
 11.51—Featuring a Stock Dow Art Number.  
 11.40—"Advertiser" News Service.  
 11.55—Vocalion number.  
 12—G.P.O. Chimes.  
 12.10—"Advertiser" News Service and Cricket Report.  
 12.15—Featuring a Stock Dow Art Number.  
 12.30—5 CL Studio Orchestra will be heard in a series of classical numbers.  
 1.55 (Australia)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.  
 2—G.P.O. Chimes.

## AFTERNOON SESSION.

- 3—G.P.O. Chimes.  
 3.1—Relay from "Maple Leaf" Cafe—Orchestra numbers.  
 3.45—From the Studio; Vocalion numbers.  
 4—G.P.O. Chimes.  
 4.1—Broadcast from "Arcadia" Cafe—Orchestra numbers.  
 4.55—Stock Exchange Reports, General Information, and Station Announcements.  
 5—G.P.O. Chimes.

## NIGHT SESSION.

- 4.30—G.P.O. Chimes.  
 4.31—Belting stories.  
 7.30—Market reports.  
 7.40—Boy Scouts' corner.  
 8.—Programme of dance music relayed from Palais Royal, interspersed with vocal items from the studio.  
 9—G.P.O. Chimes.  
 9.5—Studio Concert, continued.  
 10.15—Advertiser News Service.  
 10.30—Studio Concert, continued.  
 10.55—Station Announcements.  
 11—G.P.O. Chimes; National Anthem.

## 7 ZL

## MORNING SESSION.

- 11—G.P.O. Clock Chimes. "The Mercury" news. Stock market. Shipping. Commer-

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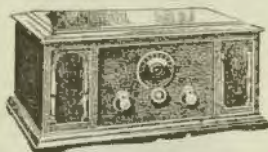
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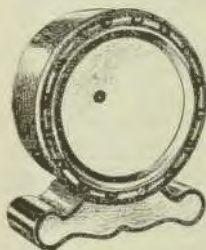
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21st Intelligence, Weather information and Sporting Anticipations; *Solomona Selections* 12—G.P.O. Chimes. Close down.

**AFTERNOON SESSION.**

4—G.P.O. Clock and Chimes; Musical Items from the studio; Story from the Illustrated Tasmanian Mail.  
 5—Robert Stock Exchange quotations.  
 2.15—Weather information.  
 4—G.P.O. Clock Chimes. Close down.

**EARLY EVENING SESSION.**

1—Children's Corner, "Big Brother" talks to his pals.  
 1.15—Story from Illustrated Tasmanian Mail.  
 2.00—"Gossiping," by a Girl Guide.

**EVENING SESSION.**

4—G.P.O. Clock Chimes; "The Mercury" special Tasmanian news service; Railway section produce sales; Weather information and sporting results.  
 5.45—Robert Stock Exchange quotations.  
 6.10—Physical Culture Talk, by Mr. George Collis.  
 8.00—Selections on the Gulbrausen Receiving Piano, broadcast by direct wire from Fitzhugh's Show Room, Elizabeth St., Hobart.  
 8.30—"The Mercury" special Interstate news service. Weather synopsis. Station announcements. National Anthem. Close down.



**Thursday, Oct. 14  
 2FC**

**EARLY MORNING SESSION.**

7—The Chimes of "Big Ben" and Announcements.  
 7.5—Music from the Studio.  
 7.10—Weather Information, Commercial News, Shipping Intelligence, and Markets. Rainfall, Temperatures, Astronomical Memoranda.  
 7.25—Investment Market, Mining Share Market, Metal Quotations.  
 7.35—Wool sales, breadstuffs markets, produce markets.  
 7.45—"Sydney Morning Herald" News Service.  
 8—Time signals "A Cheero!" talk by Mr. J. K. Powell.  
 8.15—Close down.

**MORNING SESSION.**

8.15—The Chimes of 2FC and Programme Announcements.  
 8.30—Music from the Studio.  
 8.45—Last minute racing information, by the 2FC Racing Commission.  
 10—The Chimes of "Big Ben."  
 10.5—Late "Sydney Morning Herald" news service.  
 10.15—Music from the Studio.  
 10.45—A Morning Reading.  
 11—Broadcast from the Columbia Record Factory, Parramatta Road, Homebush, the opening ceremony by His Excellency Sir Dudley de Chair. After the Governor is welcomed, a record will be made by a well-known dance orchestra, which will be broadcast. The party, headed by the Governor, will watch the process of the making of the record until the article is finished. A description of the process will be broadcast, and the finished record put on the air. The Governor's speech will be recorded and repeated also.

**MIDDAY SESSION.**

12—The Chimes of "Big Ben" and Announcements.  
 12.5—Stock Exchange. First call.

12.10—Music from the Studio.  
 12.30—Marching Music for the children.  
 12.40—From Farmer's Tea Rooms: Oak Hall Trio.  
 12.50—Rugby Wireless News.  
 12.55—Miss Meryl Holliday, contralto, from Farmer's Tea Rooms.  
 1—Chimes of "Big Ben" and announcements. Weather intelligence.  
 1.3—"Evening News" Midday News Service; Market Reports.  
 1.25—Music from the Studio.  
 1.30—Stock Exchange. Second call.  
 1.35—Music from the Studio.  
 1.45—From Farmer's Tea Rooms: Miss Meryl Holliday, contralto.  
 1.40—Music from the Studio.  
 1.50—From Farmer's Tea Rooms: The Oak Hall Trio.  
 1.55—Racing Information by the 2FC Racing Commission.  
 2.10—Close down.

**AFTERNOON SESSION.**

2.30—The Chimes of 2FC and Announcements.  
 2.35—Music from the Studio.  
 2.50—From Farmer's Tea Rooms: The Oak Hall Trio.  
 3.00—From Farmer's Tea Rooms: Mr. Fred Harmon, baritone.  
 3.45—From Farmer's Tea Rooms: The Oak Hall Trio.  
 3.55—Music from the Studio.  
 4—From Farmer's Tea Rooms: Miss Margaret Grimshaw, mezzo.  
 4.5—The Oak Hall Trio.  
 4.15—Music from the Studio.  
 4.20—From Farmer's Tea Rooms: Mr. Fred Harmon, baritone.  
 4.25—The Oak Hall Trio.  
 4.35—Music from the Studio.  
 4.40—From Farmer's Tea Rooms: Miss Margaret Grimshaw, mezzo.  
 4.45—Stock Exchange, Third Call. Close down.

**EARLY EVENING SESSION.**

5.45—Chimes of "Big Ben" and Announcements.  
 5.50—"The Hello Man" talks to the children.  
 6.30—A serial story for the older children.  
 6.40—Broadcast from the Hotel Australia, Sydney; orchestral items.  
 7.15—From the Studio: "Evening News" late news service and weather information.  
 7.30—Dalgety's Market Reports (wheat, wheat, stock), fruit and vegetable markets.  
 7.40—A talk by Mr. J. K. Powell on "The Health Value of Humour."

**NIGHT SESSION.**

7.55—The Chimes of 2FC and Announcements.  
 8—The Crystal Palace orchestra, under the baton of Mr. Harry Stone.  
 8.30—From Beale's Music Saloon: Items by Miss Annie Payne, soprano.  
 8.40—From Beale's Concert Salon; piano solos by Miss Winifred Bradford.  
 8.50—Madame Emily Marks, soprano.  
 8.55—Mr. Lobban Hodgins, baritone.  
 9.4—Mr. Norman Francis, tenor.  
 9.10—Captain Frank Hurley, the famous explorer, will complete his series of adventures, in which listeners will be taken in imagination through very thrilling escapades connected with the subject of his talk. Musical items will be interspersed, forming an effective background, and will be rendered by the various artists in the Studio. The effects will be in the hands of Mr. Laurence Halbert.  
 10.30—Madame Emily Marks, soprano.  
 10.35—Mr. Lobban Hodgins, baritone.  
 10.42—Mr. Norman Francis, tenor.  
 10.46—Mr. Laurence Halbert, baritone.  
 10.50—Broadcast from the Wentworth Hotel, the Wentworth Cafe Dance orchestra, conducted by Mr. Sydney Simpson.  
 12—National Anthem. Close down.

**2BL**

7.15—Usual Early Morning session.  
 10.10—Usual Morning session.  
 Afternoon Session.  
 During the afternoon, results of races will be

broadcast immediately after each race, by courtesy of the Sun Newspapers.  
 4—G.P.O. Clock and Chimes; Weather Report and Notes from "The Sun."  
 3.15—David Jones' Tea-room Trio, Pianist, Miss Casters, Violinist, Mr. Acheson, Cellist, Mr. Cleverly.  
 3.30—"Romances of Science and Invention," by Mr. J. M. Prentice.  
 3.45—Musical Programme from the studio.  
 4—G.P.O. Clock and Chimes; David Jones' Tea Room Trio.  
 4.10—Musical Programme from the Studio.  
 4.30—Serial Story, entitled "The Scarlet Cock-eril," by C. M. Sublette.  
 4.45—Music from the Studio.  
 5—G.P.O. Clock and Chimes; Producers Distributing Society's Market Report.  
 5.5—Shipping information when available.  
 5.10—Resume of night's programme.  
 6.15—G.P.O. Clock and Chimes; Close down.

**EARLY EVENING SESSION.**

4—G.P.O. Clock and Chimes; Uncle Jack and the Kiddies.  
 4.40—Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison.

**SPECIAL COUNTRY SESSION.**

7—G.P.O. Clock and Chimes; Australian Mercantile Land & Finance's Co's. Stock, Wool and Hale report.  
 7.5—Weather Report and Forecast.  
 7.9—Stock Exchange Reports.  
 7.15—Producers' Distributing Society's Fruit and Vegetable Report (Sun).  
 7.20—Fruit and Vegetable report (Sun).  
 7.24—Grain and Fodder reports (Sun).  
 7.27—Eggs and Poultry report (Sun).  
 7.30—Country news from the Sun.  
 7.45—Miss Helen Jean Beagler will talk on "Golf."  
 8—G.P.O. Clock and Chimes; Close down.

**EVENING SESSION.**

8—Daughter of Jauris (inserted routine), broadcast from Church of England, Lind Belfr, from the Studio; Miss Alice Prowse (contralto).  
 10.15—Al. Hammett and the Ambassadors' Dance Band broadcast from the ballroom of the Ambassador. During the intervals between dances, news reports by courtesy of the Sun Newspapers, will be broadcast.  
 12—G.P.O. Clock and Chimes; National Anthem.

**2KY**

**LUNCHEON HOUR SESSION.**

12.15—Popular Fox Trots, Musical Interlude, News Items; Hawaiian Steel Guitar Selections; Union News and Meetings; Vocal Items; Closing down at 1.45 p.m.

**AFTERNOON SESSION.**

3.15—Tune-in to the ticking of the clock.  
 3.18—Popular Fox Trots.  
 3.25—News Items.  
 3.45—Musical Interlude.  
 4—Home News.  
 4.10—Baritone Solos.  
 4.20—Social and musical items.  
 4.30—Where to go to-night.  
 4.35—Close down.

**CHILDREN'S HOUR.**

6.40—"The Animals at Taronga Park." Mr. Geo. F. Manuel.

**EVENING SESSION.**

7.30—News Items.  
 7.40—Sporting Feature, Mr. E. E. Voigt (Olympic Games Champion, 1908-11).  
 8—Physiology by Mr. Funnell.  
 8.10—Stories of the Opera's scene, Aida, with vocal and musical illustrations, Mr. Geo. F. Manuel.  
 8.30—Musical Interlude: Pania Royal Californians, Mr. Walter Bechan, leader (by kind permission of J. C. Benndorf, Ltd).  
 8.35—Tenor Solos, Mr. W. Thom.  
 9—Novelty Interlude—Bo Blake and His Mandola, presenting Broadway Hits.  
 9.15—Entertainer, Mr. Roy Nelson.  
 9.25—Popular song numbers, Mr. Ernie Cox.

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(Filter or Tap)  
High selectivity and no side band distortion.  
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**RADIO FREQUENCY COUPLER**  
(Oscillator Coupler)  
A uniform output at 150 to 650 meters.  
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W. E. PETERMAN, PERRY HOUSE, BRISBANE

8.00—Social Science Service, Mr. J. C. Eldridge.  
8.15—Music from Studio.  
10—Closing Announcements.

### 3 L O

#### MIDDAY SESSION.

- 15—British Official Wireless News from Rugby; Reuters and the Australian Press Association Cables; "Argus" and "Herald" News Services.
- 12.15—Community Singing, under the auspices of the Community Singers and Concerts Goers' Association, transmitted from the Assembly Hall.
- 1.15—Stock Exchange Information; Meteorological information. Weather forecast for Victoria, Tasmania, South Australia, and New South Wales.
- 2—Close down.

#### AFTERNOON SESSION.

- 3—Studio Orchestra.
- 3.15—Gwen Harham, contralto.
- 3.17—Mr. C. R. Lott, M.A., plays of Shakespeare.
- 3.25—Charles Pope, Coloured Comedy Koon.
- 3.47—Studio Orchestra.
- 3.55—"Mary Gimbleaf," A talk on "Both Sides of the Question."
- 4.25—Gwen Harham, contralto.
- 4.32—"Herald" news services. Stock Exchange information.
- 4.45—Evening, transmitted from St. Paul's Cathedral.

#### EARLY EVENING SESSION.

- 5.30—Children's Song Competition. Radio Voice Trials.
- 8—Children's Hour; Answers to letters and Birthday Greetings.
- 6.10—Ray Alberta will sing to the children, accompanied by Elsie Bradshaw.
- 6.15—Charles Pope, Coloured Comedy Koon.
- 6.17—"Mary Gimbleaf," Poems: "Running Away," "My Little Garden." Songs by the "Wattle Girl" and "Mary Gimbleaf." Songs for the Blind ones, "The Little Grey Mouse" For the bigger ones, "The Panama Canal."
- 6.45—"Argus" and "Herald" News Services; Reuters and the Australian Press Association cables.
- 6.55—Weather synopsis. Shipping movements. Aerial mail information, by the Australian Aerial Services Ltd.; Overseas Shipping News.
- 7—Stock Exchange information.
- 7.4—Fruit market reports by J. R. Barrett, Ltd.
- 7.5—River reports.
- 7.6—Market Reports, by the Victorian Producers' Co-operative Co. Ltd. Bacon and Salt, Poultry, Grain, Chaff, Hay, Straw, Jute, Dairs Produce, Potatoes and Onions.

#### NIGHT SESSION.

- 7.20—Mr. S. J. Salmon, President of the Electrical Federation (Victoria), "Electricity."
- 7.40—Mr. J. Howlett Ross, "Archbishop Carr."
- 8—Mr. I. J. Thompson, President of the Victorian Amateur Hockey Assn., "Hockey as a Winter Sport."
- 8.15—Mr. A. W. Jackson, "Golf."
- 8.25—MLO Dance Orchestra.
- 8.45—Syl L. Eaton, tenor.
- 8.52—MLO Dance Orchestra.
- 8.57—Prince Green, famous pantomime dancer, will entertain you, by permission of J. C. Williamson Ltd.
- 9.10—MLO Dance Orchestra.
- 9.20—Charles Pope, Coloured Comedy Koon.
- 9.27—MLO Dance Orchestra.
- 9.37—Syl L. Eaton, tenor.
- 9.44—British Official Wireless news from Rugby. Announcements.
- 9.52—MLO Dance Orchestra.
- 10.14—Prince Green will again entertain you.
- 10.24—Charles Pope, in some more selections from his repertoire.
- 10.51—MLO Dance Orchestra.



- 10.41—"Argus" news service. Meteorological Information. Results of South Street Competitions.
- 10.57—SLO Dance Orchestra.
- 11—One Great Thought: "Look up and not down; look forward and not back; look out and not in; and lead a hand." E. E. Hale.
- 11.11—SLO Dance Orchestra.
- 11.40—God Save the King.

**3AR**

**MORNING SESSION**

- 12.30—The British Official Wireless Press, received from Rugby Super Wireless Station, England, by NAR's operator.
- Express Train Information. "Age" news bulletin.
- 12.41—Time Signal Chime from G.P.O. Studio barometer and outdoor thermometer readings. First weather forecast. Events of the day.
- 12.42—Musical selections, relayed from Hoyt's 10-Lane, Bourke Street. Mr. T. L. Campbell at the Wurlitzer.
- 12.40—Stock Exchange news.
- 12.40—Musical selections.
- 12.55—Mail notices. Shipping movements.
- 1—Close down.

**AFTERNOON SESSION**

- 2.30—Hoyt's Premier Orchestra, under direction of Miss Ella Brien.
- 3.3—The Erica Trio, Miss Elsie Houtsworth (pianist), Mr. T. Buxley (violinist), Mr. James Maxwell (bassist).
- 4—Time Signal Chime, Hoyt's Premier Orchestra, and Weather Forecast.
- 4.45—Evening Amusement Guide.
- 4.51—Time Signal Chime from G.P.O. Studio barometer readings; Close Down.

**EARLY EVENING SESSION**

- 4.45—The Children's Corner, by Brother Steve.

**NIGHT SESSION**

- 7.45—The British Official Wireless Press, Special File and Cliff Bezart, supplied by Messrs. McPhail, Anderson, Pat Sheehy and Cattle Report, supplied by Messrs. J. McNamara & Co. Studio barometer readings.
- 8—Time signal from G.P.O.
- 8.25—The Three Shades.
- 8.15—Mr. Horace Parfitt, baritone.
- 8.20—Captain Dettonen, V.D., will talk on "Stamps."
- 8.37—Mr. J. Hoy Ling, baritone.
- 8.44—Miss Emma Sutherland, cellist.
- 8.51—Miss Louise Sterling, mezzo.
- 8.58—Mr. Horace Parfitt, baritone.
- 9.5—Dr. Geo. Philpotts, President of the Food Education Society, of Victoria, will speak on "Bad Teeth and their Relation to Disease."
- 9.26—Mr. J. Moy Ling, baritone.
- 9.33—Miss Alice Davies, violinist.
- 9.40—Miss Louise Sterling, mezzo.
- 9.47—The Three Shades Trio.
- 10—Time Signal from G.P.O. Studio barometer readings; "Age" News Service, exclusive to 3AR.
- 10.10—Hoyt's Premier Orchestra.
- 10.40—Close down.

**5CL**

**MORNING SESSION**

- 11.30—G.P.O. Chimes.
- 11.31—Featuring a Stock and Art Number.
- 11.40—"Advertiser" News Service.
- 11.55—Vocalion number.
- 12—G.P.O. Chimes.
- 12.1—"Advertiser" News Service and Cricket news.
- 12.15—Featuring a Stock and Art Number.
- 12.30—5CL Studio Orchestra will be heard in a series of classical numbers.
- 1.25 (approx.)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.
- 2—G.P.O. Chimes.

**AFTERNOON SESSION**

- 2—G.P.O. Chimes.
- 2.1—Relay from "Maple Leaf" Cafe—Orchestral numbers.
- 2.47—From the Studio; Vocalion numbers.
- 4—G.P.O. Chimes.
- 4.1—Broadcast from "Arcadia" Cafe—Orchestral numbers.
- 4.55—Stock Exchange Reports, General Information, and Station Announcements.
- 5—G.P.O. Chimes.

**NIGHT SESSION**

- 6.30—G.P.O. Chimes.
- 6.31—Bedtime Stories by Auntie Sybil and Uncle Mike.
- 7.10—Health talk, arranged by Mr. Whittenbury.
- 7.30—Market reports.
- 7.40—Foultry talk, arranged by Mr. Whittenbury.
- 8—G.P.O. Chimes.
- 8.1—Studio Orchestra, interspersed with vocal items.
- 8.1—Weather Reports.
- 8.3—Studio Concert, continued.
- 10.15—Advertiser News Service.
- 10.30—Studio Concert, continued.
- 10.50—Station Announcements.
- 11—G.P.O. Chimes; National Anthem, and Close down.

**7ZL**

**MORNING SESSION**

- 11—G.P.O. Clock Chimes. "The Mercury" news, Stock market, Shipping, Commercial Intelligence, Weather information, Selections on the Salonola.
- 12—G.P.O. Clock Chimes. Close down.

**AFTERNOON SESSION**

- 2—G.P.O. Clock Chimes.
- 3.4—Musical items from the Studio.
- 3.30—Robert Stock Exchange Quotations.
- 3.58—Weather information.
- 4—G.P.O. Clock Chimes; Close Down.

**EARLY EVENING SESSION**

- 7—Children's Corner, "Big Brother" chats to his Pal.
- 7.15—The adventures of George, the Bookshelf Cal. "An Ink Story," by Aunt Stella.

**NIGHT SESSION**

- 8—G.P.O. Clock Chimes. "The Mercury" special Tarantula news service. Railway auction, produce sales, Weather information.
- 8.5—Robert Stock Exchange quotations.
- 8.10—Selections by Jones' I.L.L. Band; Conductor, Mr. L. M. Barnett.
- 8.30—Mrs. E. W. Bailey, L.A.B., contralto; Miss Dorcas Glover, mezzo contralto; Miss Dorothy Newton, contralto; Miss Beryl Scettrine, soprano; Miss Amy Butterworth, pianist; Mr. George Muir, tenor; Mr. Rolf Lyons, baritone; Miss Elsie Lampkin, soprano.
- 9.35—"The Mercury" special Interstate news service. Weather, Pronouncements, Station announcements, National Anthem.

**2BE**

- Wavelength, 316 metres. Power, 100 watts. Every Tuesday and Thursday evening, from 6.30 p.m. to 9 p.m.
- 8.30 to 7.30—Mealtime Music, consisting of vocal and orchestral items.
- 7.30 to 8—Lectures, orchestral and vocal items.

ERP will be glad to get into touch with anyone willing to give their services to this station.

**N.Z. Broadcasters.**

The transmissions from IYA, the Auckland station, which recently went on the air, are as follows:—

Tuesdays and Fridays.—Afternoon sessions, 1 to 4.30; children's session, 4.30 to 7; news and market session, 7.15 to 7.45; evening session, 8 to 10.

Wednesdays and Thursdays.—Afternoon session, 3 to 4.30; news and market session, 7.15 to 7.45; evening session, 8 to 10.

Saturdays.—Afternoon session, 2 to 4.30; news and market session, 7.15 to 7.45; evening session, 8 to 11.

Sundays.—Evening session, 7 to 9.

There will be no transmissions from the Auckland station on Mondays. The new Christchurch station will be completed about August 21, and its time table will be so arranged that it will be working on full power on Mondays.

IYB.—La Gloria Gramophone Co., Auckland. Power, 50 watts; wavelength, 275 metres. Transmits first two Sundays in the month, broadcast from Congregational Church, commencing 6.30. Last two Sundays, gramophone items, 8-10 p.m.

IYC.—E. C. Shepherd, Whangarei. 15 watts; 250 metres. Transmits Monday, Wednesday, and Friday, 8-10 p.m.

IYQ.—I. A. Keith, Auckland. 50 watts, 285 metres. Monday and Thursdays, 8-10 p.m. Sunday afternoons, 2.5. Instrumental items. Shortly introducing kiddies' items, 4.30-5 p.m. Sunday.

**RACES BY RADIO.**

By C. C. FAULKNER.

The scene is a flat on the third story of a house overlooking the racecourse close to the judge's box. Having studied the position I venture to assert that from no point on the course could a better view of the whole proceedings be obtained. One outstanding advantage, from the broadcasting point of view, struck me immediately: the man describing the race, by closing his window, can shut out all distracting noises. This he does, but as soon as the race is over and the results announced, he opens the window, and the cheering and shouting of the crowd is wafted over the air for hundreds of miles. Punters in Charleville (Queensland) have heard the results; in New Zealand they bet while the horses are running; in the farthest corner of N.S.W. they hear everything.

Business Man, travelling United States 20th October, is prepared to execute commissions re agencies, etc., for radio, electrical, and machinery lines. Apply by letter, "N.L." "Wireless Weekly," 51 Castlereagh Street.

# PHILIPS HIGH TENSION SUPPLY UNIT

**A Real "B" Battery Eliminator**

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

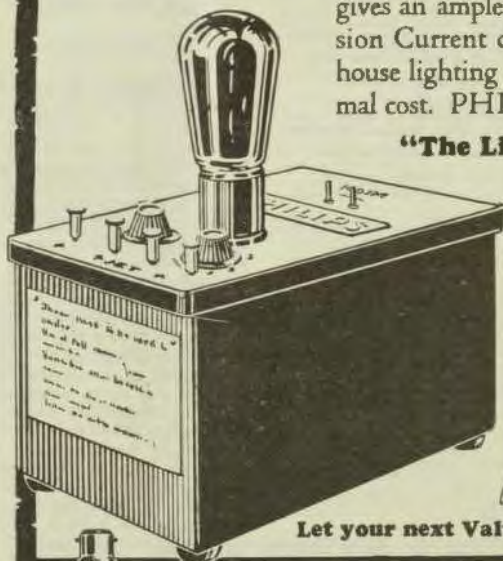
**T**HIS unit will eliminate "B" battery worries entirely. No more faulty reception — no more disappointment or spoilt programmes. Philips Unit gives an ample supply of High Tension Current direct from your A.C. house lighting circuit at an infinitesimal cost. PHILIPS is

**"The Lifetime Unit"**

Ask your dealer for a demonstration.

**Obtainable at all  
Radio Dealers.**

**£9/15/-**  
each,  
complete.



Let your next Valve be a PHILIPS



# PHILIPS

LAMPS AND RADIO





# Reasons for the Popularity of the Pilot Parts

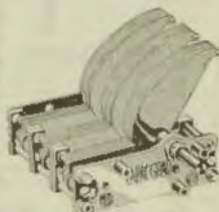
The Pilot Electric Manufacturing Coy. is the Largest Radio Parts Manufacturing Company in the World, and can produce all Standard Radio Set Parts of sturdy and reliable types at prices which no other manufacturers can compete with

The Pilot Kilo-grad vernier dial—calibrated both clockwise and anti-clockwise on the one dial—moulded in pure bakelite—with friction control—absolutely no backlash, and only . . . . . 7/6



### STRAIGHT LINE FREQUENCY BRASS PLATE.

No. 8113, 13 plate . . . .	£0 14 0
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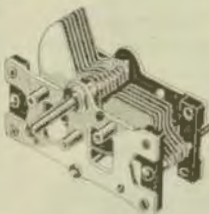
### PILOT CONDENSERS.

#### Straight Line Wavelength.

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No. M.7. Midget condensers, 7 plate 5/9

No. M.7. Midget condensers, 13 plate 7/-



### JACKS.

Pilot Single Circuit Jack, No. 1161 . . . .	£0 2 3
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### PILOT RHEOSTATS.

No. 906, 6 ohm Rheostat . . . . .	0 3 9
No. 910, 16 ohm Rheostat . . . . .	0 3 9
No. 920, 20 ohm Rheostat . . . . .	0 3 9
No. 930, 30 ohm Rheostat . . . . .	0 3 9
No. 200, 200 ohm Potentiometer . . . . .	0 5 6
No. 400, 400 ohm Potentiometer . . . . .	0 6 6

### PILOT ISOGRAD MOULDED CONDENSERS.

. . . . .	s. d.
.001 . . . . .	3 0
.002 . . . . .	3 0
.006 . . . . .	3 9
.0005 . . . . .	2 0
.00025 . . . . .	2 9
.00025 with clips . . . . .	2 9



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# CO-AXIAL MOUNTING

The new Constructional System which ensures (a) longer life (b) lower running costs and (c) greater uniformity in results. Used for the first time in this wonderful new Cossor Dull Emitter.

FOUR years ago Cossor astonished the Radio world by evolving a method of valve construction which, for the first time, utilised almost the whole of the electron stream. Two years later this success was followed up by the introduction of a unique triple-coated filament which operated at a phenomenally low temperature.

And now Cossor—in introducing the new Cossor Point One—demonstrates that the same spirit of progress which has always dominated its activities is as vigorous as ever.

## Why Valves vary in performance

It is well known that if a batch of valves were made up using identical filaments, grids, and anodes, without due regard being paid to the accurate spacing of the elements, that every valve would vary considerably in results. There would be hardly two alike. Any variation of distance between filament and grid, or between grid and anode, exercises considerable influence upon performance. All elements must be mounted co-axially to obtain the best results, and any method which GUARANTEES this must result in an incomparably higher standard of efficiency.

In the new Cossor Point One there is at last available a patented system of mounting which infallibly aligns the filament, grid, and anode from top to bottom.

## How Co-axial Mounting is achieved

Owing to the peculiar advantages possessed by the shape of the Cossor grid and anode it has been found possible to secure these two

elements together at the top by means of a selenite insulator. The grid itself ends in two prongs, which are inserted into the base of the selenite insulator. The selenite rests on a wide flange provided, and is welded at its base to two stout nickel supports. Even extreme forces cannot disturb the exact relative positions of these two elements—since fixed in their places, to a hundredth part of an inch, they are there for all time.

## The New Shockproof Filament Suspension System

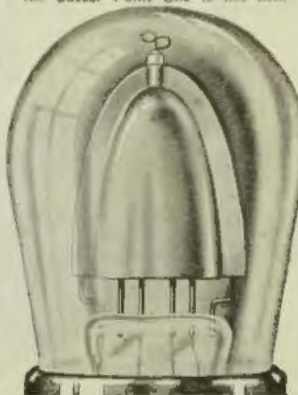
Through the centre of the selenite tube runs a fine wire which holds the filament in its correct position. Unlike other valves the filament in the Cossor Point One is not held

under tension. Its shockproof support provides exactly the degree of elasticity to enable it to absorb the sharp concussion caused by an accidental blow. A knock which would shatter the filament in an ordinary valve is rendered harmless by this amazingly efficient suspension.

## Greater uniformity and economy

Thus, with the filament, grid, and anode in permanent alignment, it is reasonable to expect a greater uniformity in results. The supreme importance of this will be instantly appreciated by users of Neurodynam and Super-Heterodyne Receiving Sets, employing several stages of MATCHED Radio Frequency amplification.

But, in addition, this new valve is exceptionally economical. Its triple coated filament consumes only one-tenth of an ampere at 1.8 volts. A super-heterodyne using 7 of them would actually consume less current than a little one-valve set with a single bright emitter. Bearing in mind, too, the fact that this filament operates at a glow which is practically invisible, it will be obvious that at least wireless enthusiasts have available a valve which must give an incredibly long and uniform service.



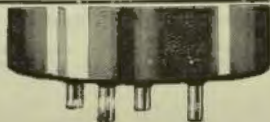
### TYPES AND PRICES.

COSSOR POINT ONE— RED TOP: For 6a5 or 6v6 quater use 1.8 volts con- sumption 1.000 amp.	13/6
PLAIN TOP: For Diometer 1.8 volts consumption 1.100 amp.	13/6
COSSOR STENTOR TWO— GREEN TOP: For power use 1.8 volts consumption 1.5 amp.	17/5

# The New Cossor Point One

—the long-life Dull Emitter with the new .1 amp filament

WHOLESALE ONLY  
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**BIGGER BUSINESS FORCES***Noyes Bros. to Expand*

It is a healthy sign that the interest in radio is developing in ever widening circles when we find firms under the necessity of getting into larger premises to enable them to cope with the business.

A number of migrations and expansions have taken place lately and the latest firm to seek more accommodation for their radio business is Messrs. Noyes Bros. (Sydney), Ltd., of 115 Clarence Street.

It is only so recently as May last year that Noyes Bros., one of the oldest engineering houses in Australia, decided to enter the field of radio, and in the short space of sixteen months have built up and consolidated a position which now places them in the front rank of the radio industry.

This rapid development has been fostered and stimulated by the wise policy of offering only the highest quality of radio goods, combined with a prompt and generous measure of service. Realising that the public will not get the highest satisfaction from radio by the use of cheap apparatus, they secured the distribution of a number of high-class British lines, such as Igranic Radio Devices, Igranic Super-heterodyne Kits, Brown loud speakers, headphones, etc., and Oldham batteries, and in addition handle Philips valves, battery chargers, etc., and Cutler Hammer parts, as advertised in current periodicals.

Starting in a very modest way in the main building in Clarence Street, the radio department has grown so quickly that the accommodation there soon proved inadequate and more room had to be acquired. This has been secured at Erskine House, corner of York and Erskine Streets, where the whole of the radio business of this firm is now centred on the second floor.

Messrs. Noyes Bros. will appreciate a visit from all their radio friends to their new premises, where large stocks of all lines are carried.

**FARMER'S***for all***Wireless Accessories***of uniformly high quality***"Jefferson" Transformers**

"Jefferson," No. 41, an Audio Frequency transformer with a ratio of 3.75 to 1. Ideal for adding to a single valve receiver when desirous of converting it into a two valve receiver. Price ..... 25/-

**"Ayanbee" Hydrometers***A necessity for every set*

No set owner should be without an "Ayanbee" Hydrometer, for with it the condition of the accumulator can at once be determined. Price ..... 4/6

**"Enmco" Vernier Dials**

A dial with a micrometer movement, unsurpassed for critical adjustments, it is absolutely free from backlash. Price, each ..... 9/8

**"Advance" Variable Condensers**

"Advance" .0005 Variable Condenser, with special single hole mounting, which enables it to be mounted on the panel neatly and quickly. Price 10/-

**"Heath" Condensers**

"Heath" .001 Variable Condenser with ebonite ends; an ideal condenser for an aerial circuit. Price ..... 20/-

**"Mars" Aerial Wire**

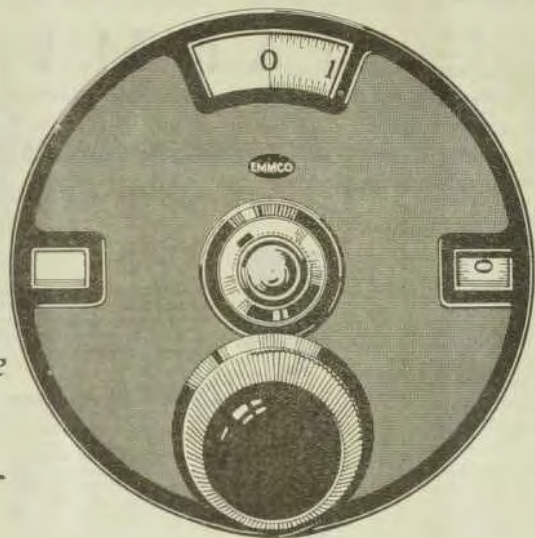
"Mars" Aerial Wire, 84 strand, super Aerial Cable, has the lowest ohmic resistance yet obtained, 100 feet lengths. Price, per length .... 12/6

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*Carriage paid on Wireless Goods to 5 per cent. of cost*

To  
Separate  
those  
stations--



To  
get the  
Finest  
Tuning--

## Use Emmco Vernier Dials

THE advantage of the absolute hair-line adjustment of an Emmco Dial can only be appreciated when searching on a crowded wave-band. Its remarkable precision and the ease of control which it gives to the most sensitive receiver makes tuning in the work of a moment. It gives skill to your fingers. It gives efficiency to your set. And there is no vernier like it for distance-getting.

EMMCO PRODUCTS AT ALL DEALERS

Manufactured by

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



# Who wants a Selective Crystal Set?

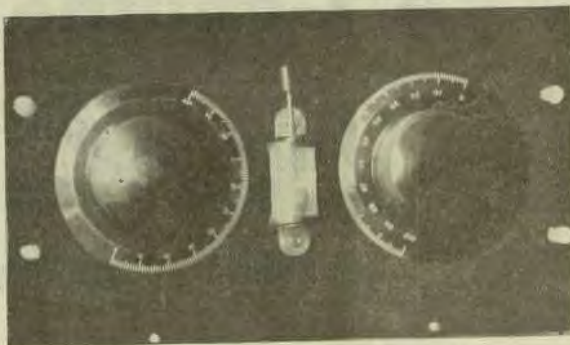
Designed for the listener-in wishing to tune in 2FC on the new wavelength this crystal set combines simplicity of construction with unusual selectivity.

WITH 2FC on 442 metres, many owners of crystal receivers are finding that their present sets are not efficient. Interference or lack of selectivity is the main cause. The crystal sets designed a year or so ago or even several months back are now out of date on account of the inception of 2KY and 2GB as well as 2FC's change.

There is no doubt selectivity in a crystal receiver is a difficult matter. Those folks living within a mile or so of a broadcasting station generally find that their crystal receiver responds only to the neighbouring station. This is unfortunate, for the only remedy is to construct a one-valve selective receiver.

However, there are many experiencing interference, which can be avoided without such measures. To these listeners-in and to the beginner this article is addressed.

The crystal receiver illustrated here is unusually selective with good volume. The construction is simple, and if carefully carried out the set will present a good appearance.



Several of the parts required for this set will probably be found at home, while the remainder may be obtained from any of the advertisers in "W.W."

- 1 Panel, 12 x 7 x 1/8.
- 1 .001 variable condenser.
- 1 .0065 variable condenser.
- 1 Crystal detector.
- 4 Terminals.
- 1 Coil former 5" x 3 1/2".
- 1 lb. 20 D.C.C. wire.
- 1 Baseboard, 11 x 7 x 1/2.

## Coil Construction.

The coil is the first part to be constructed.

At a distance of 1 inch from one end of the former, pierce 2 small holes and thread the end of the wire

through each hole in order to hold it securely. Then wind on 20 turns of wire, finishing off as you started. This is the primary coil.

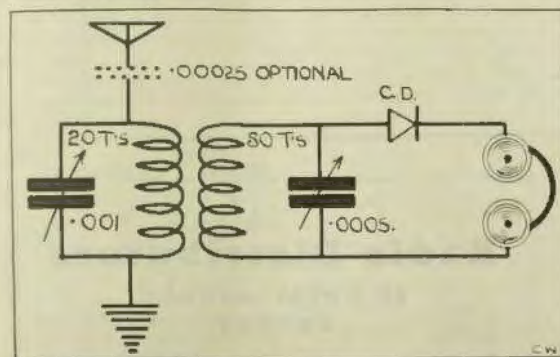
The secondary coil consists of 50 turns of the same gauge wire wound on the same former. Commence the winding about half an inch from the end of the primary winding and secure as you did the first coil. There is no necessity to dope this coil with shellac in any way.

## Panel Layout.

The drawing herewith gives you the panel layout. Provision is made for the condensers, crystal detector and terminals. Use the templates provided with the condensers, and be careful to drill correctly. Mount your apparatus on the panel. Should the crystal detector come to you on a baseboard remove the baseboard and mount the detector directly on the panel.

## Wiring.

The panel wiring may now be proceeded with. The aerial terminal is taken to the one side of the larger condenser—the other side being joined to the earth terminal. One side of the crystal detector is connected to the one side of the .0065 mfd. variable condenser. One terminal of the phones is linked up with the remaining terminal of the crystal detector which a wire joins the remaining phone terminal to the remaining side of the smaller variable



This circuit design can be followed by any beginner. Note the small number of turns on the primary and secondary coils.

# A Genuine Offer

This £1 note  
can be  
yours



IT is simply human nature to look for the catch in any proposition offering payment for easy spare-time work. So many wonderful schemes have been evolved, but they usually call for a lot of work you don't feel inclined to tackle after a hard day at your ordinary business.

**THERE IS NO CATCH IN OUR OFFER !**

It represents a genuine, honest chance to earn more money without hard work or brain fag, and will appeal to any reader (old or young) of this paper anywhere.

**FILL THIS IN AND MAIL IT TO-DAY**

RADIO DISTRIBUTORS, 29 ROYAL ARCADE, SYDNEY

*Kindly send me details of your proposition.*

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_  
\_\_\_\_\_

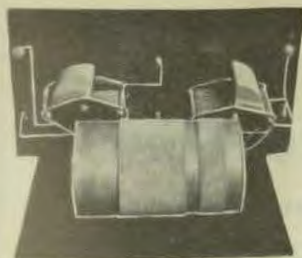


**Radio Distributors**

29 ROYAL ARCADE  
SYDNEY

MA 1790  
MA 1744





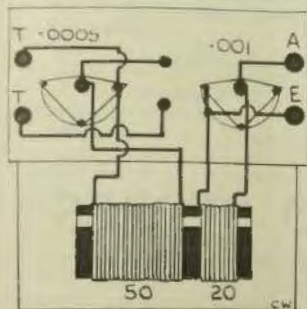
Illustrating the method of mounting the coil former and condensers. The back of panel view.

condenser. Square busbar is generally used for the wiring, and it looks very neat.

Now screw your panel to your baseboard and attach your coil. Small supports should be pressed into service to keep the wire of the coil from resting on the board. Little wooden supports will be found ideal, and screw your coil to the baseboard, using a brass wood screw for the purpose. Make sure that you mount your coil in such a manner that the primary coil (20 turns) is immediately behind the .001 variable condenser and the secondary portion is near to the .0005 variable condenser.

Complete the wiring now by joining the beginning of the primary coil to the aerial side of the larger condenser and the end of this same coil to the earth side of this condenser. The top of the secondary is connected to that side of the smaller condenser which joins the crystal detector, the other side of the condenser being linked up to the end turn of the secondary coil.

This completes your wiring which you had better check off with the cir-



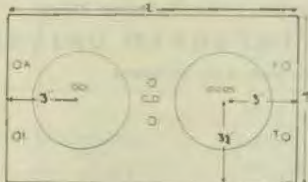
This diagram shows you how to wire each component.

cuit and the back of panel wiring diagram.

**Tuning Hints.**

There is really nothing to any regarding the operation of this simple receiver. All that is required is to turn the condensers until you hear the station. All the local stations will be heard nicely, and one apart from the other. Should you hear two stations at once, overcome this, altering the distance between the two coils. It means rewinding the primary, but do so and finish one inch away from the beginning of the secondary. This gives a looser coupling and means more selectivity. Should this not completely solve the difficulty, the insertion of a fixed condenser of a capacity of 00025 or 0005 mfd. in the aerial lead as shown in the dotted lines on the circuit diagram will assist still further. Before inserting this condenser finally try it out by clamping one side underneath the aerial terminal and hooking your aerial to the other side.

Excellent results are assured with this receiver, but don't forget to obtain a good sample of crystal.



Lay out your panel according to this diagram.

**HOSPITAL CONCERTS.**

Station 2FC is organising a party of radio artists to visit the hospitals on Saturday evenings. The patients will be entertained for a couple of hours and part of the programme will be broadcast so that listeners everywhere can hear. Mr. Rus. Garling, who will act as concert director, will take "Jerry" and will give the sick children some of his amusing ventriloquial acts. The Hello Man will tell his bed time stories at the bedside of the children in hospital. Many of the principal hospitals in the metropolitan area will shortly be equipped with receiving sets, thanks to the recent newspaper appeal, and the move of 2FC will enable patients to listen to the concert party in another hospital while awaiting their turn.

**Manufacturers  
Products Pty. Ltd.  
(M.P.)**

(H. J. HAPGOOD)

Challis House, Martin Place  
SYDNEY

Tel: BW 1329

Agents for all styles of Radio Products.  
Including Clyde Batteries.

Elec. Meter Mfg. Co., "Emmaco."

Remade Condensers, Leaks and Fixed Rheos.

Airzone Rheos, Pots, Special Coils and Loops.

Neutron Crystals, Brunsel Phones, Prompt Shipments from Sydney.

We represent 34 Foreign Radio Manufacturers

Write for Indent List.

Surplus Stocks sold Interstate.

**SLINGSBY & COLES  
Limited**

Under Central Station,  
482 PITT STREET.

**OUR SPECIAL SUPERTONE  
3-VALVE SET (complete)**

with Loud Speaker and All Accessories, in handsome Cabinet.

PRICE, £19/10/-.



"Supertone" Home Assembly Set.

- 3 valve £8 10 0
- 4 valve 9 0 0
- 5 valve 10 0 0

With panel drilled and handsome cabinet.

Also 4 and 5 valve sets.

The best value ever offered in 3-Valve Sets  
Call in and see it, hear it, buy it.

**Easy Terms. Easy Terms.**

## BUILD THE "Regenerative Interflex"

As described in last week's "Wireless Weekly"

HERE ARE THE PARTS YOU WILL REQUIRE:

	£	s.	d.		£	s.	d.	
1 Best quality polished bakelite panel 18 x 7 x 1/2	0	7	11		1 Filament control jack (double open circuit)	0	4	3
1 Advance, .0005 mf. straight line fre- quency condenser	0	10	6		1 Midget low loss microdenser	0	3	0
1 Eramco vernier dial (black metal)	0	6	9		1 Fixed condenser, mica, .00025	0	1	6
3 Bremer Tully sure contact valve sockets, 3/4	0	9	0		1 Fixed condenser, mica, .001	0	1	6
2 Formo Audio transformers, 5 to 1, and 3 1/2 to 1, 15/6	1	11	0		1 Genuine Carborundum Detector (guaranteed)	0	11	0
1 Filkostat (gives extremely fine con- trol)	0	9	6		1 2 1/2 inch cardboard tube for flexo coupler	0	0	6
2 Braschstats (automatic filament con- trol), 4/9 each	0	9	6		1 1/4 lb reel, 22 gauge D.C.C. wire, green	0	2	5
1 Filament control jack (single open circuit)	0	2	9		1 Terminal board, engraved, seven posts	0	2	6
					1 25 turn Apex honeycomb coil	0	1	2
					<b>Total</b>	<b>£5</b>	<b>14</b>	<b>9</b>

**A Wonderful New Vernier Dial**  
**THE WALBERT IMPROVED UNIVERNIER** 9/6  
Extremely Fine Divisions No Backlash

	£	s.	d.		£	s.	d.	
Aerial wire: High grade phosphor bronze, 50 strands, 100 ft.	0	3	0		Neutralising Condensers: Highly ef- ficient	0	3	6
C or Bias Batteries: The new "Volton" long life, 4 1/2 volts	0	2	9		Potentiometers: Tillman 400 ohms	0	3	0
Neutrodyne Kits: 3 neutroformers and blue print	1	5	0		Sub-panel Brackets: In pairs, complete with screws	0	4	6
Browning Drake Kits: Aerial Coil, Re- genformer, and blue print	1	5	0		Sterling Variable Condensers: 21 brass plates	0	13	6

### OUR BATTERIES ARE ALWAYS FRESH

Ever-Ready, 30 volts	9/6			"Volton," Heavy Duty, made in	
Ever-Ready, 42 volts	12/6			45 volt units	22/6
Ever-Ready, 60 volts	18/-				

We pay carriage on orders 10/- and over, except on Batteries and Loud Speakers.

"Yours for Lower Prices"

# THE ECONOMIC RADIO STORES

25 ROYAL ARCADE, SYDNEY

569 HUNTER ST. WEST, NEWCASTLE

Phone M3049.



## "Wire Music, Him Belong God"

(Continued from page 6)

Though the sound of human voices and music coming from the loud speaker was, for the moment, terrifying and bewildering to the natives, they soon accepted the "telephons belong God" as another specimen of the white man's magic, to whom, in their simple belief, all is possible. Those who had assisted in the erection of the plant, did not fail to strike a pose beside the machine in the full limelight of public admiration.

Sambo, of IQG, was a great "hit." His infectious laugh kept my dark listeners-in in convulsions, and there was not a native picanniny who did not ask me to request Uncle George to admit them to the radio family, and to send Hector post-haste with boxes of chocolates!

The natives had never heard a jazz band before, and when the joyful noise blared forth at them, it was accepted with mixed feelings. Marico, who dug the pit for the "earth," chuckled and took the credit for bringing that brand of noise from the ground.

"That come from hell-noise belong debil," he said.

A little later, however, an excellent choral and organ item came over the air. The natives recognised the hymn as one taught to them by the mission. Phinensa, who had strained the aerial high aloft between the coconuts, was quick to take advantage of the number.

"That one come from sky—I catch 'em along wire—music belong God!"

I enjoined the congregation to join in, which they did with great fervor. Phinensa had scored a triumph!

"The studio time is two minutes past nine."

Those who could read the time by my alarm clock, were astonished. "He speak true," they said, simply, but all were deeply impressed.

The instrument was as sublime a revelation to us as it was to the natives. Instead of dreading the nights, we looked forward to them. The programmes were a mental tonic to all, keeping us attuned and in good spirits for the day's work.

I doubt if radio music was ever presented or appreciated under more

(Continued on page 49)



We release the

## "D.J. Standard 4"

absolutely complete  
nothing more to buy!

# £25

After months of work to attain perfection, David Jones' now release the "D.J. Standard 4" as the supreme Wireless value!

With the "D.J. Standard 4" *there are absolutely no extras to buy.* It is complete with "Trim-enter-tainer" Loud Speaker, and genuine Peto & Radford Accumulators.

This new Set RECEIVES ALL INTERSTATE BROADCASTING STATIONS AT LOUD SPEAKER STRENGTH—including New Zealand, but excluding Perth.

It is adapted to the new wave length conditions of 2FC.

It is extremely simple and absolutely stable in operation.

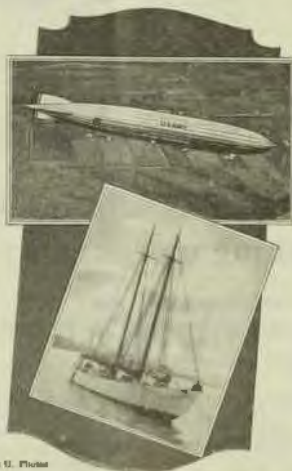
Only two dials for tuning! No moving coils to change!

In attractive polished Maple Cabinet. Price complete, £25

RADIO DEPARTMENT—22 YORK STREET.

# DAVID JONES'

# Further Adventures of **BURGESS** RADIO BATTERIES



U. &amp; U. Photo

*The Shenandoah is Equipped with Burgess Batteries and MacMillan Carried them to the Arctic*

If the quality of any product may be judged in part by the standing of its users, surely Burgess quality must be considered unusually high.

Burgess Radio Batteries are found where there's need for the most efficient batteries made—in emergencies where failure brings disaster—with explorers in far-off lands—with the unsung heroes of the air service—beneath the seas with the crew of the submarines.

**"ASK ANY RADIO ENGINEER"**



Send for the Burgess Radio Compass. Surprising—amusing and interesting to the entire family. Send free of charge from 1 - Burgess Engineering Bldg., Madison, Wisc. Write for it.

WHOLESALE

**New System Telephones  
Pty. Ltd.**

280 Castlereagh Street, Sydney  
54 Queen's Bridge St., Melbourne  
Charles Street : : : Adelaide



**PLAYS WRITTEN FOR RADIO.**

Radio is creating a new technique in the question of play writing, and 2FC has for some time endeavoured to develop the writing of special plays for broadcasting purposes. Mr. Scott Alexander has been successful in this direction, preparing and producing more than fifty comedies and dramas for that Station. In addition, new plays are being written for 2FC by Mr. James Donnelly, whose prolific pen has produced a number of humorous and musical plays. One of these will be given from that Station on Monday, October 4, in which an attempt will be made to show how a listener-in searches for his radio amusement by dialing every station in Australia, and just missing the item he is looking for.

**SEASONAL MODELS VANISHING.**

Seasonable models, a big obstacle to all-year-around sales of receiving sets, are rapidly disappearing.

Manufacturing policy is very definitely moving against the practice of introducing new models at a certain definite time of the year. Many of the larger manufacturers are adopting the policy of some of the automobile manufacturers, that of making improvements whenever possible, but no seasonal models. Others again recognise that many concerns have brought out so-called new models which, beyond one or two minor changes in design, perhaps a new dial, or something like that, are no different from their predecessors.

**VERNIER REACTION CONTROL.**

Fine and accurate control of reaction is necessary when receiving distant telephony stations.

In sets using two plug-in coils, aerial coil and reaction coil, the desired effect can be obtained conveniently and efficiently by substituting a three-coil holder in place of the two-coil holder. The third socket in the holder is then used to take a coil of from four to eight turns only, which is connected in series with the main reaction coil.

Approximate coupling values are then obtained by the main reaction coil in the usual way, the small coil then being adjusted to obtain a vernier effect.

# These Batteries Last Longer

Ever-Ready Radio Batteries are now made in Australia, and are placed on the market immediately after manufacture. This ensures always a fresh battery, crammed to the full with maximum energy.

It is one of the many reasons why Ever-Ready Batteries are so popular amongst radio enthusiasts.

Your dealer has the particular type you want.



New Ever-Ready No. 126, or A, B, or C Battery  
Price 2/9.

One of a group of Radio Batteries. Useful in Wireless Lighting, and Amplification. Size, 3 1/2 x 4 x 1 1/2. Most useful for Bells, Telephones, Burglar Alarms, Medical Coils, etc. With Three Brass Terminals. Voltages, 1.5, 3 or 4.5 volts. Useful for all wireless purposes, as well as general utility.



"Wanda" Plug Radio Battery

This illustrates the New Radio High-tension "Wanda" Battery, which can be obtained 21 1/2, 42 or 63 volts—fitted with a Wanda Plug, and 2 screw terminals.

**PRICE:**

Small size, type WF, 31.5 volt	3/6
Small size, type WF, 42 volt	12/4
Small size, type WF, 63 volt	18/-
Large size, type XP, 31.5 volt	36/-
Large size, type XP, 42 volt	21/-
Extra large size, type Super Service, 42 volt	28/6

(Farnstock Terminals)

If unobtainable locally, write for address of nearest source of supply to

The "Standard" Dry Cell Radio Battery

Price 2/6.

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

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

163 Pitt Street      ||      SYDNEY

# FACTS

ABOUT

## Impedance of Audio Frequency Transformers

THE FAMOUS



BRITISH MADE

## TRANSFORMER

TYPE AF 3

Has the following Impedances :

AT 100 PERIODS . . . 50,000 OHMS.

AT 500 PERIODS . . . 410,000 OHMS.

*No better Transformer is available at any price*

Wholesale Traders are requested to  
communicate with—

# FERRANTI LIMITED

HOLLINWOOD, ENGLAND

Distributors for N.S.W., Victoria, South Australia, and  
Tasmania:  
A. BEAL PRITCHETT (Aus.) LTD.,  
5 Parker Street, Sydney,  
130 Queen Street, Melbourne.

Distributor for Queensland:  
EDGAR V. HUDSON,  
55 Charlotte Street, Brisbane.

- (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



### Clearing the Air about Fading Phenomena

(Continued from page 8)

It sounds logical enough, and in fact there are some scientists who have weighty and mathematical arguments to prove that it is a practical explanation of the phenomenon. But—and this is the point—they cannot tell us how to cure it. A partial cure is to increase the power sent out into the two waves; but even that has been proved to be an ineffective cure for the difficulty in certain types of localities — valleys in hills, or places directly behind hills, for example. The only cure for such cases as those is to build more stations on the hills; but that cure is ruled out in economic considerations.

Broadcasting stations obviously cannot be put up and operated efficiently all over the country. Some people, therefore, must perforce be the unfortunate ones; at all events, until science shows the way to get these two waves to behave and deliver their energy to aerials in all localities without too serious diminution in strength and without mutual interference.

### "Wire Music, Him Belong God"

(Continued from page 45)

unusual conditions than in this strange theatre of nature, hemmed around by rustling palms and roofed by the starlit dome of the heavens. Though static occasionally compelled us to shut down, I was generally able to receive Australian and New Zealand stations at least five nights of the week. One evening I thought I had tapped Marico's "hell." I had merely tuned into JOAK, Japan. This station was broadcasting, with all its fiery fury, a Japanese opera. It was a great joke for my listeners, who wondered what new noise the loud speaker might spit at them.

Mr. Carroll's batteries, in spite of their initial immersion in seawater, stood up to the severe test of tropical steamy heat marvellously; in fact, they appeared to be immune to climatic conditions, and whatever drain I made upon them. These batteries, after four months' continual service in the tropics, are still operating the set in my home.



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

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

## MULLARD Double Red Ring VALVES

Type D.3 for 2-volt accumulator.

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

GET ONE FROM YOUR RADIO DEALER

PRICE

13/6

EACH

# Mullard

## THE MASTER VALVE

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

OBTAINABLE FROM EVERY RADIO DEALER IN AUSTRALIA

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

# “SFERAVOX”

Produced by  
SOCIETE FRANCAIS RADIO-ELECTRIQUE, PARIS

Faithful  
Sensitive

Beautiful  
Powerful



Toned in Silver.

Silver in Tone

£5-5-0

### PROPERTIES OF THE “SFERAVOX.”

Both on account of the entirely new principles of design and the particularities of its construction, the “SFERAVOX” is the only Loud Speaker combining the qualities of sensitivity, power and purity of reproduction, which, up to the present, have been considered as mutually antagonistic. It reproduces the sound impulses in any desired degree of strength, as a very agreeable tone, and both human voices as well as music are reproduced with irreproachable truth.

Australasian Representatives:

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

**BROWN & DUREAU, Ltd.**

Broughton House  
Clarence St., SYDNEY



# Is Your Problem Here?

W.A.D. (Mandarama):

Q.: Can you supply me with a list of the different capacities of variable condensers and the number of plates each contain?

A.: This is a rather difficult question to answer with authority, as all manufacturers do not standardise on any given number of plates to a given capacity. The capacity of any condenser depends on the strength of the dielectric and the area of the plates. For example, a 43 plate condenser with the moving plates when all in may have a capacity of .001 mfd. if the distance between the moving and fixed plates be one-sixteenth of an inch, but this capacity is greatly increased if the distance be one-thirty-second of an inch and lessened if the distance between these plates is altered to one-eighth of an inch. However, as a guide we are publishing herewith a table, showing approximate values.—

Plates.	Capacity.
43	.001
23	.0006
17	.00035
13	.00025
9	.00018
7	.0001

R. H. C. (Collarenderi):

Q.: When is a B battery worn out?

A.: A B battery is worn out when it ceases to function as such. It is obviously impossible to give a stated time of life for a B battery, so many different factors having to be taken into consideration. Should your batteries be used for eight hours a day they certainly won't last as long as they would with four hours' use a day. A B battery soon lets you know when its useful life is ended. Crackling noises, frying sounds, and distortion are the symptoms, and it is then advisable to replace them. You would be well advised to stand B batteries on their ends, and not lying flat down, as air circulation means a lot to batteries, and never, under any circumstances, leave them in the sun, preferring always a cool place. Do not link up an old or partially worn out B battery to a new one. If in series, resistance is set up, which precludes good reception,

and if joined up in parallel, the old B battery will accept quite a lot of life from the new one, and will not be able to hold it. Look over your set carefully to see that there is no leakage and try disconnecting your B battery when not in use. For three or more valves, always use the heavy duty type—it is more economical in the long run.

N.E.C. (Uralia):

Q.: I have built the two-valve reflex receiver recently published in W.W. but can only get howls from it, which become more pronounced when the grid and plate terminals of either valve are touched.

A.: It seems that you are not using by-pass condensers, as recommended. If you are using them, test them as one may be defective. Substitute other condensers. Perhaps you would be well advised to test one valve only and then the second valve. You will thus allocate your trouble to one valve, which will be easily rectified.

R.E.U. (Gladesville):

Q.: Please tell me where and what are stations 3ME and 3MA?

A.: These are test stations of Amalgamated Wireless (A.S.) Ltd. situated in Melbourne.

L.G.C. (Blayney):

Q.: Would you please supply me with a diagram showing how to add a stage of radio frequency to a three coil receiver? I would like to switch out the radio frequency when not required.

A.: See W.W. of 18/2/26 for full information. We would rather you did not use a switch on the radio frequency side.

G.H. (Griffith) asks:—

Q.: I am using a B battery of 40 volts on my audio amplifiers. Will it increase the volume.

A.: Yes.

Q.: I have an A battery comprising three dry cells connected in series. Would three more in series so joined as to form two banks in parallel give more punch to the volume?

A.: No, but the life of your A battery so connected would be more than double the three joined in series.

Q.: My series aerial condenser will only work when the moving

plates are completely enmeshed within the fixed plates—why is this?

A.: Use a smaller size coil in the aerial circuit.

G.T.H. (Point Cook):

Q.: Could you please inform me where I can obtain tantalum?

A.: The tantalum which we received was obtained in England, and is the property of the Technical Editor, who intends using it as explained in W.W. of 10/9/26.

Q.: Can you give me details for building a spark coil suitable for use with a 201A valve as oscillator in a transmitter?

A.: A spark coil from a Ford will be found quite satisfactory.

A.M.D. (Newcastle) is experiencing some trouble with the W.W. Reflex receiver.

Q.: When the loud speaker is touched, a dreadful squealing arises.

A.: Too much plate voltage and coupling too close. Reduce both.

Q.: Volume is good, but modulation is harsh. Can you explain?

A.: Yes, reverse your tickler connections. See answer to N.E.C. (Uralia).

G.S. (Parramatta): Your present aerial is quite alright, without any alteration.

W.E.H. (Cootamundra): The drop in the wavelength of 2FC has automatically solved your problem. Build the Neurodyne.

L.M. (Wongan Hills, W.A.): We should advise you to talk this over with your local garage proprietor.

S.J.B. (Estelville): Don't tackle this, as it will be too complicated.

H.W.McK. (Homebush): Thanks for the suggestion, but as 2FC has altered the wavelength, suggest you build the Regenerative Interflex in this issue.

R.W. (Hinton):

(1) Obtain one of the valve handbooks from any agent for valves and decide this question for yourself.

(2) Leave your aerial as it is.

A.E.S. (Auburn):

C 509: Your second inquiry will be answered next week.

W.G. (Singleton):

Perhaps as you suggest you are too far away.

BRITISH  
AND  
GUARANTEED

# CLARKE'S ATLAS

FILAMENT CONTROL.

BRITISH  
AND  
GUARANTEED

The Silent Sentinel of Your Valve Filaments

Uniformity of Adjustment.  
50 OHMS Resistance.  
Lengthened Life of Valves.

For Dull Emitters



The Perfectly Wire-less Control  
Impossible to "Pack."  
One-Hole Fixing.

For Bright Valves.

Will carry two Amps. without over-heating, which means that three Bright Valves taking .75 Amps., could be controlled with it.  
Do not be denied the real pleasure of tuning your set by means of your filaments. Having picked up the station and you are on the oscillation point, let your Tuning Condenser alone.—Simply slightly adjust the "Atlas" Filament Control when the elusive Station will be brought in. Price ..... 3/9 Each

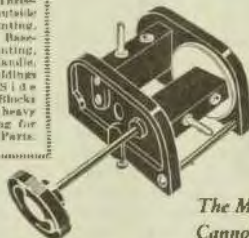
If you cannot obtain supplies from your Dealer, please communicate with

**THE GENERAL TRADING COY.** "WINGELO HOUSE," MARTIN LANE  
(near Martin Place), SYDNEY.

Telephones: BW 6938 B 4917

Sole Australian Distributors.

Supplied in Two-way and Three-way for outside Panel Mounting, or inside Base-board Mounting, with 61s. Handles, Bakelite Mountings for the Slide Plates, Coil Blocks and Knobs; heavy Nickel Plating for the Metal Parts.



The Moving Block  
Cannot fall back

Do away with that irritating, time-wasting fading away of volume caused by the falling of your moving block! Fit a Lotus Geared Vernier Coil Holder and get really accurate tuning. Has an easy Vernier movement, which reduces the speed by eight times, and stays where it's put—exactly! Fit in any position, with any weight of coil—you'll be satisfied with the results.

# LOTUS

VERNIER  
COIL HOLDERS

GARNETT WHITELEY & CO. LTD.  
Lotus Works, Broadgreen Road, Liverpool  
Makers of the New LOTUS BUOYANCY VALVE HOLDER.  
From all reliable Radio Dealers.  
Manufacturers' Representative:  
John Arnold, G.P.O. Box 871, DeGraves Bldg., DeGraves St., Melbourne; and 35 Taranaki St., Wellington, New Zealand

## CARBORUNDUM DETECTOR

For all Reflex and  
Crystal Receiving Sets

Retailed by all Radio Dealers,  
including the following:

Colville Moore Wireless Co.  
E. R. Cullen.  
Economic Radio Stores.  
Harringtons Ltd.  
Keogh Radio Supplies.  
J. Levenson.  
Mick Simmons Ltd.  
Murdocks-in-Park-St. Ltd.  
Radio Wireless Mfg. Co.  
Swain & Co.

The Truly Fixed Detector



### 3LO Experiments with Sound and Studios

(Continued from Page 10.)

engineers the result is very satisfactory. When we consider that the voice in the studio which in power is about one hundred millionth of a watt is gradually amplified or boosted up until it has a power of nearly two thousand watts, we can realize the difficulties encountered in endeavouring to maintain the voice or music faithful to its original form.

When the voice is radiated—or rather saddled on to the high frequency carrier that is radiated and carries it in all directions, many and complex actions take place. These generally are not properly understood, but there are sound theories which enable us to obtain a mental picture of what happens.

No loud speaker is capable of reproducing the sounds faithfully. Both the transformers and the loud speakers will distort some musical sounds and a compromise is aimed at. The research and experiment on transformers and loud speakers has been remarkable in recent years, and the receivers are gradually being improved. The advent of the Cone loud speakers has marked a decided advance and it is not unlikely that the present unsightly horn types of speakers will be obsolete in a few years.

The construction of the receivers—the layout of the components and connecting up in home assembled sets—is a fruitful source of trouble leading to unfaithful reproduction. The maintenance of the batteries, particularly the B batteries; the condition of the earth connection—to say nothing of the method of operation—are all capable of causing unsatisfactory reception of even the best transmitted items. And added to all these is the interference caused by atmospherics, which is beyond the power of any man or device to eliminate. That bugbear of broadcasting is more severe in summer than in winter. Listeners near a powerful station like 3LO are not so severely affected by it as are listeners at a great distance. The signals from the station are strong enough to drown the interfering noises nearby, but at a great distance cannot do so.



MR. JOHN HARRINGTON

(Managing director, Harringtons Limited, Australia and New Zealand) who recently spoke from station 4QG (Brisbane) while on a motoring tour in Queensland. Mr. Harrington emphasised the fact that to get really good reception of broadcasting programmes, it is necessary to purchase good quality radio sets from reliable, well-established warehouses. Mr. Harrington, who visited some of the big broadcasting stations in U.S.A. and Great Britain last year, said, after his inspection of 4QG, that it compared most favourably with anything he had seen. He considered 4QG most neat and efficient.

Mr. Harrington received reports from the staff of his radio and photo warehouses all over Australia and New Zealand that his speech was received quite clearly. Mr. R. A. S. Martin, a big radio dealer of Cowra, N.S.W., reported excellent reception of Mr. Harrington's speech, remarking that the voice sounded very much like Uncle George's, of Broadcasters Limited. Mr. Harrington is, himself, an enthusiastic listener-in.

#### NAUTICAL NIGHT.

For those with a streak of salt in their blood, should tune in 4QG on Friday, October 15. A talk on "The Mercantile Marine in Wartime," by Mr. F. W. Stevens, will open the session. The musical portion of the programme will include sea ditties.



#### THE SESQUI-CENTENNIAL.

This year all eyes in America are on Philadelphia, the Cradle of Independence. Thousands and thousands of people from all over the country and all over the world are streaming into that city.

The Sesqui-Centennial is the greatest world display ever seen. As you enter the grounds, passing under the mammoth electric reproduction of the Liberty Bell, the first thing you see is a spick and span electric coach waiting to carry you smoothly and comfortably over the entire circuit of the grounds. Twenty-five of these special de luxe coaches are provided, and each coach seats comfortably 40 passengers. The electric power to drive each coach is provided by 40 "Philco" batteries, made by the makers of the famous "Philco" Rechargeable "B" Batteries, which have proved so efficient in Australia.

#### A SHIELDED WAVE METER FOR YOUR STATION.

A full description of the above is contained in the August issue of "Q.S.T.," written by F. H. Schnell, of Station 9XH-9EK—Burgess Battery Laboratories. All amateur transmitters should read it.

#### A GRID-METER DRIVER.

An interesting article also appears in this same issue, by W. A. Hoffman, another member of the experimental staff of the Burgess Laboratories, concerning a grid meter driver.

#### THE VALUE OF ADVERTISING.

During the next eight months, the "Philco" Battery Company, of Philadelphia, U.S.A., are going to spend the huge sum of \$130,000 in advertising in national magazines and in newspapers all over America and Australia. A special sales and service manual is being prepared as an aid to dealers, so that they can give the service to their customers which the "Philco" Company insist on.

#### RADIO IN AMERICA.

In America there are 6,000,000 radio sets in use now, and it is probable two to three million more will be sold this year. "Philco" sold 400,000 Radio "A" batteries last year, and it is estimated that 2,000,000 will be sold this year.\*

## Columbia Heavy Duty "B" Battery No. 4770





## Subscription Form

The demand for copies of "Wireless Weekly" has so far exceeded the supply from the printing presses, despite increased output each week, that many listeners-in have complained that news-dealers were sold out before they could obtain their copy. In order to ensure delivery, fill in this subscription form and forward to the Editor, "Wireless Weekly," 51 Castlereagh Street, Sydney.

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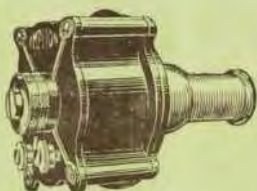
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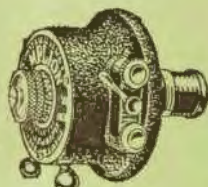
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