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# WIRELESS WEEKLY

Vol. 8. No. 23.

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Friday, Oct. 1, 1926.

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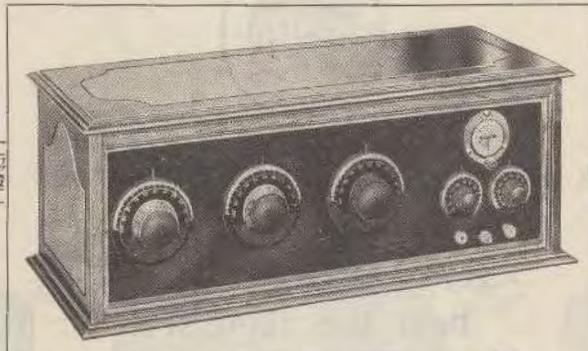
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OCTOBER 1, 1926.

*Fading Phenomena*

**G**REAT credit is due to the Broadcasting Company of Australia for its enterprise in organising an expedition to investigate fading conditions in Gippsland. However, the experiment is not likely to have any immediate practical result, for it would seem from the official report that the investigators are rather more mystified than they were before. One thing the search has accomplished. Thousands of Victorian listeners are satisfied that the authorities, particularly 3LO, are alive to the fact that fading exists. They realise now that everything possible is being done to prevent the trouble, and that it is no fault of the broadcasting companies because these efforts do not meet with success.

We know of no remedy for fading. Unless a member of the expedition should have made a remarkable discovery not revealed in the official report, little can be done. Such a discovery is unlikely. The most the experiment may have done is to add slightly to our knowledge of the peculiarities of the phenomenon. No radio engineer expects more. Even

this little is of great value, for with the information gathered by similar expeditions elsewhere in the world it should give scientists material for further research. Perhaps within a few years we will be able to prevent the mysterious fading and muffling of signals on receiving sets. By that time, we probably will have forgotten this test, but nevertheless some of the credit will be due to 3LO.

The listener-in who expects an immediate end to fading will be disappointed. If it were possible to cure it here, it would have been done long ago, for research engineers have been at work for years. It is a serious obstacle to clear and constant reception, yet not too great to prevent us from enjoying broadcasting.

There is no foundation in the belief that fading is less noticeable on the lower waves. Many people think that the reduction of Farmer's wavelength will also reduce fading. The actual change will not affect fading, but the additional signal volume which will result from the low waves will do much to make fading less marked in some districts.

Madame Ely Trowek, famous Australian concert and operatic artist, is seen on our cover this week. Having broadcast from 2FC and 3LO she returns to England this month.

# Between You and Me and the Microphone

SINCE Gipsy Smith broadcast, many churches are being fitted up with receiving sets. So it is no longer going to be more blessed to give than to receive.

ONE OUT of a thousand people in Queensland will take part in 4QV's September programmes. Altogether there are 800 different artists for that month.

IN FUTURE all summer activities around the North Pole will be broadcast by station KD2, Point Barrow, Alaska. News of passing airmen will be transmitted on 21.4, 42, 75, and 149 metres.

BRITISH listeners, who have been complaining that some of the continents surpass the British stations as regards quality of programme, have had their bluff called, for the B. B. C. are now regularly relaying transmissions from the Continent every week.

GEURIE public school is the latest to move in the direction of securing a radio set for the benefit of both the children and their parents. At a meeting of the Parents and Citizens' Association recently it was decided to endeavour to induce local residents to subscribe funds for this purpose.

AMONG hundreds of historical radio instruments and apparatus in the Marconi Museum, London, is a primitive microphone used by Dame Nellie Melba during the first important concert broadcast in the world, on June 15, 1920. It consists of an ordinary carbon granule microphone attached to a horn made from a cigar box.

SO GREAT has become the number of questions asked of the Technical Editor each week, that we have been forced to cease replying to queries by post, telephone, or in person. Queries will be dealt with in rotation in "Beginners' Problems."



Conducted by  
R. E. CORDER

IT COST £400,000 to erect the great British station at Rugby, heard here every morning.

THAT famous experimenter, 2OD, says he communicates daily with New Zealand on 45 metres. It is almost 2 OD to believe.

ADELAIDE may have a new broadcasting company. The prospectus has been issued of the Sport Radio Broadcasting Co. Ltd., having a nominal capital of 25,000 shares of £1 each.

MR. WARWICK DEEPING, novelist, was the first to have a cheque transmitted by radio between the United States and Great Britain. Payment of £513 for the aerial rights of a new novel was wirelessed at the rate of £6 a minute, the procedure occupying almost an hour and a half.

MORE THAN a quarter of a million radio receivers embodying the neutrodyne principle were sold to the American public during 1925.

A READER at West Wollongong reports that he received 1YA, Auckland on a crystal set, without using amplification. A cornet solo, "Home Sweet Home," came in very well, and other items were plainly heard.



ON the night that 2GB first broadcast on 3000 watts, something went wrong with the electrical supply and the voltage fell considerably. The engineers rectified the trouble before the evening programme was completed. The Mayor of Nelson (New Zealand) has written to say the new station is heard well on the other side of the Tasman Sea.

## The Village Radio Fan

Above a spreading chestnut tree  
The blacksmith's aerial stands;  
The smith, a wireless fan is he,  
Whose large and sinewy hands  
Control reaction coils which catch  
Signals from many lands.  
His aerial is as old the pan:  
Aids on its set, a superhet,  
Tuned to all bands,  
And sends his oscillating howls  
Through all the broadcast span.  
Listening, experimenting, oscillat-  
ing.  
Onward through life he goes,  
Each morning sees new stations  
logged.  
Each evening hears them close,  
KDRA, in morning hours,  
Disturbs his night's repose.  
From the South African Wireless  
Weekly.

THE Royal Prince Alfred Hospital, Sydney, has called for tenders for equipping every bed in the hospital, about 500, with a pair of headphones so that patients can listen to the broadcasting stations. The experience of the Alfred Hospital (Melbourne) shows that the comfort of listening in cheers up the patients, so that the average stay in hospital is now two days less than formerly.

FROM a number of country towns, the residents of which are hoping to have a broadcasting relay station in their midst, Kempsey has been eliminated—at least for the present. This has been learnt by Dr. Earle Page, the Federal Member for the district, who has received the following letter from the Postmaster-General. Mr. Gibson states: "I am afraid there is no likelihood of such a station being established at Kempsey, at all events for some time to come. The cost of the lease of the telephone circuit which would be necessary to relay the programmes from Sydney would be prohibitive considering the revenue which is likely to be derived from the licensees in the Kempsey district."

THE VALUE OF RADIO in hospitals has been fully realised in the Riverina. The "Pastoral Times," Deniliquin, is receiving subscriptions for the installation of a receiving set at the Deniliquin Hospital. The Mayor of Hay is inviting subscriptions for a radio set at Hay District Hospital.

SOUTH Australian listeners in report that the two most powerful stations received in that State are 2BL and 3LO. Both these stations come in with a terrific punch, states a correspondent, and sometimes have to be detuned.

OTHER cities which have hopes of being made relaying centres from the Sydney broadcasting stations are Dubbo, Wagga, Bathurst, Orange, Newcastle, Grafton, Lismore, Goulburn, Wollongong, and Cootamundra. A relaying station is connected by telephone line to the parent station and is used to re-broadcast the programmes sent from headquarters.

# Summer Static is Still an Unsolved Mystery

THERE is no phase of radio subject to more speculation as the summer approaches, than the origin of static and the other sources of atmospherics that affect broadcast reception. There has been much data collected, many theories expounded, and quite a few exploded, but the actual causes of the ethereal turmoil remains as wrapped in mystery as ever.

A special study of atmospherics from a radio standpoint while adding considerably to the knowledge of the characteristics of atmospheric disturbances, does not contribute very largely to solving the fundamental question of static's origin, which leaves the subject still very much up in the air (no humor intended).

An understanding of the whys and wherefores of the generation of these disturbances is absolutely essential before it can be studied with a view to nullifying its effects upon radio.

The further we go along the line of research in the realm of the etherial dome the more confusing becomes the problem, until scientists who a few years ago thought they understood static and atmospheric disturbances, have discarded the old theories and are searching for something, although the old theory has never been disproved.

In days gone by static was explained as an accumulation of electrical energy coming in contact with another accumulation of opposite polarity. The crash was considered to be the energy liberated by the act of neutralization of these two quantities of energy.

Engineers were willing to go further in those days and explain in very plausible and convincing manner the storing of the energy which was supposed to float around in the atmosphere gaining strength from the reaction of the polarization of the atmosphere from the sun's rays.

The small incessant crashes were thought to be invisible clouds of varying size, coming in contact with each other and consequently giving rise to crashes and grinding noises, the intensity of the crash being

*Summer Static is nearing its annual return. Its source is one of Radio's most baffling puzzles with many theories but no proved answers. Every listener-in can read this non-technical discussion*



*Can we Blame This?*

directly proportional to the size of the neutralizing quantities coming together, the larger quantities developing into flashes between clouds in which tremendous energy was stored; lightning being the final development when the attraction of the opposite forces of the floating energy formed an affinity for the earth, and, ionizing the intervening atmosphere, come crashing down with devastating force.

In big cities, where great electric power was used and quite some wasted, much of the static was considered to be this escaping energy being stored in various quantities in the particles of moisture in the air. It was supposed that these quantities float about aimlessly and eventually

came in contact with aerials and other grounded metallic structures and with a crash dashed to a ready ground.

The point on which the old theory seemed to fall down as far as radio was concerned was its failure to record with proportionate intensity the crash of a nearby flash of lightning, usually evidenced by nothing more than a slight click, whereas it gave undue amplification to the smaller invisible crashes. This, as explained by some physicists, was undoubtedly due to the polarization of the tube by the sharp rise in current caused by the flash of lightning.

Static, grinders and lightning were somewhat synonymous and considered under the same head and associated with storms. The appearance of static without storms being apparent somewhat upset the old idea and scientists have started out to seek a new explanation that recognizes no exceptions, or definitely establishes the relationship between lightning and static.

Static has never really been dissociated with storms and may still be traced to them, the British Meteorological Survey having located storms over a distance of 1,500 miles by recording static crashes which are directive on sensitive radio receiving apparatus.

It has even been suggested by some scientists that all the static might be produced by thunder storms the world over. This would in some measure account for the quietness of some summer periods and also the unrest of the atmosphere and prevalence of static during the winter months. Others believe that while electric storms have some bearing on radio disturbances they by no means represent all of the trouble. Grinders have been described by some observers as being caused by some showers of electrons from the sun bombarding the upper atmosphere.

French meteorologists who have studied the problem of atmospherics in relation to radio, report that only about 35 per cent. of static disturbances are traceable to electric storms and that the other 65 per cent. comes

from areas in which a change of temperature accompanied by rain is being effected. Atmospheric disturbances have been associated very convincingly with the meeting of warm and cold fronts of air, the amount of static recorded being proportional to the change in temperature.

Whatever the relationship between storms and static it is apparent from

the data of all observers that it is more or less closely associated with the position of the sun, following it north and south, giving those places over which it passes near the equator two periods of excessively high disturbance as the sun passes overhead.

Recent scientific research reveals that atmospheric disturbances are stronger in the region of the higher

wave lengths; except in the case of local storms, are nearly always stronger in the afternoon and night, while for the lower wave lengths their increase in strength is confined to the night alone; they are stronger in the summer than in the winter; are far more prevalent in the south than the north, and likewise stronger over land than on the ocean; they are more or less directive, coming from storm areas, rainy sections and mountain ranges; that long wave disturbances travel around the earth with a practically vertical wave front very similar to the signals; that some of the disturbances are oscillatory and some non-oscillatory and give rise to shock oscillations in the antenna at all wave lengths; and, last but not least interesting, that disturbances sometimes occur simultaneously at stations thousands of miles apart.

All of which leaves static and its origin still a question for the future to answer.

#### Next Week.

It is proposed in our next issue to publish full details for the construction of a very simple four-valve receiver, suitable for a frame aerial. Have you ever tried a frame aerial? It is a generally accepted fact that a frame aerial is not so subject to the ravages of our "old friend," static, hence next week's receiver will appeal to those who are living in localities where static is very prevalent during the summer months. Another feature will be found in a simple, selective crystal receiver, which will render yeoman service to the crystal user.

#### BOY WANTED

A reliable youth, not more than 16, is wanted by "Wireless Weekly" for junior duties. Apply in person at 51 Castlereagh Street.

#### -RADIO IN ANTICOSTI

Anticosti, cut off from communication with the outside world when a submarine cable went out of commission, will be informed of all that is going on through the establishment of a special radio service from CNRA, the Canadian National Railways broadcasting station at Moncton.

## Radio's Ten Summer Commandments

1. Don't try to hear ordinary broadcasting from America in midsummer. Be satisfied to enjoy the good programmes from the nearer stations most of the time.

2. Don't be disappointed if an occasional disobliging storm interferes with your summer radio evening. There are many fine concerts coming. You can't expect to find a pearl in every oyster nor to receive a record-breaking concert every night.

3. If you want louder signals use more valves, higher plate voltage, more sensitive loud speaker, and more careful regeneration and receiver adjustment.

4. A pleasant signal filling a moderate size room should be enough to give satisfaction. Musically, such a signal is ideal. It is not worth while producing signals which deafen the neighbours. It is wasteful to insist on tremendous signals which are generally less pleasant than moderate signals, particularly during the summer.

5. If your local station comes in too loudly and drowns others out a smaller aerial will help in tuning him out, with a small condenser connected between aerial and ground. Or a simple wave trap may do the trick. And if all measures to get rid of the local station fail, why not enjoy his concerts? He is working hard for you and it is nobody's fault that you are so close to him that you are bound to hear him. Broadcast stations have to be closer to some people than to others.

6. In selecting your evening's programme try for the higher powered broadcasting stations. They were designed to give better summertime service, and you will generally find that they do.

7. A little patience in learning to handle your receiver yields rich returns in satisfaction from fine signals. Remember that "Rome wasn't built in a day," and keep on getting more and more familiar with your set and how it works.

8. It is a good idea to read a few radio text books or manuals or a good radio magazine. It helps you to know how your set works and keeps you up-to-date in radio. Information of this sort is an aid in getting the concerts loud and clear.

9. Ask your radio dealer for advice: he can probably tell you what you want to know and will be glad to do so. The manufacturer of your set is also willing to help you get the desired results from its use.

10. Do not throw away the direction sheets or booklet that came with your set and with the tubes. Read all such material carefully now and then and follow the suggestions which are given. If you have lost the direction sheets write to the dealer or manufacturer for another copy. The direction sheets answer most of the questions which have been puzzling you and preventing you from getting the best out of your set.

# Theatres in Your Home

By Frederic Bentley

THERE'S nothing funny about being a comedian. It's quite a sober business, and, laughable as it may seem, I often think seriously.

Now, some months ago, I remember I had a serious thought. There was a microphone before me in the footlights and back to my mind came all the statements I had heard about broadcasting being an influence which will have a bad effect upon the legitimate stage. I remember the gloomy prophecy I had heard a friend make. He believed that if it is possible to arrange one's wireless set, get into a cosy arm chair and hear a play without ever stirring out of doors, the theatres will gradually empty and the time will come when the profession can only offer a career of distinctly minor importance.

Far from radio injuring our profession, it will mean in course of time the actual creation of another distinct branch of it, offering work and the chance of fame to hundreds more people than can get parts at present.

The thing my friend did not seem to have foreseen was that, as wireless progresses, the broadcast station will

have to form more and more of its own dramatic companies. The present makeshift system of broadcasting portions of popular plays cannot go on. Already some plays have been written specially for radio, but our greater playwrights have not yet considered such

work seriously. Meanwhile, although the public like to hear pieces taken from stage-plays sometimes, or better, plays of recognised merit specially adapted to broadcasting conditions, they will never be quite satisfied until the best possible work is selected for listeners-in.

Already some of the broadcasting stations have formed their own repertory companies in a modest way, specially to give radio plays. None of the efforts goes far enough yet, though. What is needed and what will certainly come is the engagement and coaching of numbers of clever artists whose sole work is to render for the radio plays which have been written by good playwrights expressly for the purpose. It is obvious that a stage-play is written for the eye and the ear, while a radio one is arranged for its effect on the ear alone. A stage-play, therefore, must be produced on entirely revised lines to be a success when broadcast.

These newly-engaged actors and actresses will have to be trained in a different manner, too—as if for a blind audience, in fact. Even the sounds that accompany this unseen play will have to be altered so as to become more suggestive of action. In fact, we have growing up a complete new form of art to which the legitimate stage will be merely the parent. The whole profession should rejoice at such a thing.

Quite a short time ago, effective broadcasting of plays was impossible. The slightest shade of difference in the tone of a voice may make an entire alteration in the dramatic effect of a passage. Consequently, the many minor defects inseparable from receiving-sets and more especially the "nasal" effect previously unavoidable even in the best types of loud speakers could quite easily have changed pathos into bathos. There was, in short, so much risk of poor reception through no fault of the players that hitherto many theatrical people have refused to broadcast at all. It would not have been fair to our art to have given renderings of



*Comedians sometimes have serious thoughts as Frederic Bentley of "Rose Marie" proves here.*

fine plays which faults of reception rendered inadequate.

Now, however, this fear has been finally removed. Science has so far perfected mechanical details that even with loud speakers, formerly the broadcaster's worst enemy, perfectly natural and varied intonation may be received, so long, at least, as only the best makes are used. Every sound is now undistorted and clear, and conditions altogether give good radio plays every possible chance of success.

Here is my prophecy concerning the "radio theatricals" of the not-so-distant future. At the broadcasting station, a trained company will perform the specially-written play in every way as carefully as if they were in an ordinary theatre. In millions of homes, listeners-in will do those mysterious things with crystals, valves, wires and hope that so completely awe us uninitiated ones! Then, to millions of families, will come the whimsical laughter of joyous comedies, or the tense passages of great dramas—perfect in every detail.



*Hard Boiled Herman of "Rose Marie," the writer.*

# A New Cause of Domestic Strife

*Because men lean to distant stations and women prefer the locals, the writer, analysing the radio viewpoints of the sexes, describes radio as a new cause for domestic strife*

RADIO, perhaps, as nothing else, appeals to the two sexes in almost diametrically opposed ways; men prefer distance from a large number of stations, when possible, and like to tinker with the set with a view toward possible improvements. On the other hand, the women like good programmes. If they get a good local station, they are disposed to let well enough alone, possibly for the entire evening. Only when the local broadcaster has nothing entertaining or instructive does a member of the fair sex attempt to tune in outside stations. Then the first good programme is welcomed, no matter where it comes from.

Defending themselves, the women enthusiasts say that they like to hear at least a few musical numbers or features before the dials are moved, caustically adding that men seem to prefer call letters, especially distant ones, unless a fight or a race description is on the air. To this, let me say, perhaps, it is due to the inquisitive and adventurous makeup of us men that we seek new stations in the unexplored and distant reaches of the ether; that we want to know what we can get before we settle down, or how many stations can be fished out of the ethereal whirlpools at a sitting. Although not unkindly intended, may we not suggest that while anyone can get a local, it is a little difficult to tune in a distant station, particularly if there are others operating on approximately the same channel or the static is bad. It takes considerable patience to get 100 watt stations three or four hundred miles away, and there is a bit of a thrill in getting the real low-powered, distant broadcasters, and in listing three or more in a reasonably short time.

In rebuttal, the ladies point out that their husbands, fathers and brothers actually heat up the bearings by constantly twisting the dials and burn out the filaments with continual readjustment. When the facile

female hand is on the throttle, so to speak, the lamps glow steadily, the coils never heat up, and the dials stay set if a good programme is coming on. Somehow, they never seem to have much luck with distant stations, however.

Charging the masculine listeners with being speed and distance hounds with radio sets as well as motor cars,

the females of the species insist the opposite sex never seems satisfied unless thrilled by ethereal travels over thousands of miles with twenty to forty brief stops an evening. Just ask any male fan what he heard, they suggest. He will say, proudly, "So many stations, including GWF, 1YA, SCL, and JOAK. Seldom can a masculine listener tell the name of an artist or the title of the number presented. "Time is nothing to the men, though the women sit by all evening neglected and uninterested in the bits of numbers from various stations snatched momentarily from the air," one radio sex psychologist points out. The later it gets, the better the men seem to enjoy it; a long log is the indication of a happy evening. Women are content to listen to one programme on a single or eight valve set. They actually enjoy the entertainment itself—most of them. Some of the younger ones are content to dance while they listen, and many can tell you what they heard—he it a song, story, recipe, or lecture. The feminine mind seems to possess the sole faculty of getting something good and letting it run, whereas we men can't learn anything or be amused via radio, except by twirling the dials and adjusting the rheostats. We can't keep our fingers still, they say.

There is but one solution, as far as the writer can see, and that is the simple one of having two sets—one long distance, "he-man" affair with well-oiled bearings and plenty of power, and another for the gentler sex, with a single soft valve, or, perhaps, a lowly crystal and a pair of headphones.

In our defence, let us have the last word this time. We say, perhaps, rudely, and selfishly, "Well, who made or bought this set, anyhow, who keeps it in shape, and who else can get a given station and hold it when a special feature is desired?" You know the answer. Let's stick together, boys!



Kerwin Margraith's impression of Mr. E. Gunner, Control Engineer of SCL

# Beginners! Don't Forget These Don'ts

**D**O NOT leave your instruments connected to your aerial during thunderstorms. The electrical charges collected by your aerial may damage your receiving instruments. It is advisable, therefore, to disconnect your aerial down lead from the "aerial" terminal of your receiver and connect it direct to the earth lead. The receiving instruments are thus cut out of the circuit, and the aerial, being connected direct to earth, acts as a useful "lightning-conductor." An aerial-to-earth switch can be purchased for a few shillings. This enables you to "earth" your aerial at a moment's notice, without having to make hasty connections; by throwing the handle of the switch from one side to the other, the receiving instruments are automatically excluded from the circuit and the aerial joined direct to earth.

**DON'T** use a frame aerial with a crystal receiver; you won't hear a murmur. Neither will you hear anything if you connect a loud speaker to a crystal receiver. You will need at least two valves to operate a loud-speaker.

**DON'T** use very high resistance telephones if you are working with three or more valves. The resistance of each ear-piece should not be more than 2,000 ohms if the best results are to be obtained.

**DON'T** waste filament current unnecessarily when the set is in use. When first "switched on" a valve requires slightly more current than it does when it has been in use for a long while. By turning the little handle that varies the brightness of the valve, reduce the brightness to the lowest value that will enable satisfactory signals to be heard.

**DON'T** use "low resistance" telephones with a crystal if you want to get the best results. It is desirable to have a lot of wire wound round the telephone magnets, in order to make the latter exercise a good strong pull on the diaphragms. Unfortunately, by increasing the number of turns of wire round the magnets, the total resistance of the wire is also increased. But this cannot

*Here is a list of nineteen things not to do to your receiver. The twentieth don't was a purely grammatical one requiring the blue pencil.*

be helped and must be regarded as a necessary evil. Telephones of 4,000 ohms resistance (2,000 each earpiece) are likely to give the best results.

**DON'T** try to force a valve into its holder in the wrong position. Each of the four pins that protrude from the bottom of a valve is intended to fit into a special socket in the holder. To avoid error, the pins and sockets are both slightly "staggered," in English valves, thus making it difficult to insert the valve in a wrong position. Before placing a valve in its holder, therefore, always see that the proper pins and sockets coincide.

**DON'T** discard your high-tension battery the moment it shows signs of being run down. It may be that there is just one "dud" cell in it, this being sufficient to reduce the strength of the battery as a whole considerably—just as one weak link in a chain reduces the total strength of the chain. If you have a "voltmeter" you can test each cell separately with it.

**DON'T** use too much "pressure" or "voltage" from your high-tension battery. The various types of valves are designed to take a certain number of volts. Should this number be increased excessively, the efficiency of the valve is likely to be impaired.

**DON'T** expect your high-tension battery to last for ever. When your set is in use there is a constant flow of current from the high-tension battery, which, sooner or later, must come to an end. When the battery is exhausted of its current it cannot be recharged, and must, therefore, be replaced by a new one.

**DON'T** use a fierce contact between a crystal and the spiral spring, or "cat's-whisker," that connects it to the telephone. In most cases, the lighter the contact the better.

**DON'T** forget to switch off your filament accumulator when your set is not in use. Apart from wasting the current from the accumulator, the life of the valve will be shortened without serving any useful purpose.

**DON'T** imagine that by adding condensers and inductances you can make a ten-foot aerial as efficient as an eighty-foot one. Make your aerial proper as big as required.

**DON'T** disregard the importance of cleanliness as a factor in preserving the efficiency of a receiving outfit. Keep your instruments free from dust and moisture.

**DON'T** forget that, if you are "experimenting" with your telephones directly in series with the plate of a valve, there is a right way and a wrong way for connecting the telephone leads. If you reverse them you will find that signals are louder in one position than in another.

**DON'T** connect the leads from your accumulator or high-tension battery to the wrong terminals. A mistake of this kind may result in your valve or your battery, or both, being seriously damaged.

**DON'T** try to adjust your crystal with greasy fingers. In fact, you should try to avoid touching the crystal with your fingers at any time. You should be able to adjust the contact by gripping the insulated handle with which the "cat's-whisker" is usually fitted.

**DON'T** continue to meddle with your crystal once you have secured a good contact. "Leave well alone." You can easily spoil an evening's entertainment by being over-ambitious in this respect.

**DON'T** use a thick "cat's-whisker." A thin wire with a fine point will enable you to obtain a much more sensitive contact than a thick wire which exhibits a minimum amount of springiness.

**DON'T** forget to send your accumulator to be recharged when it becomes "run down." An accumulator needs care. Don't leave it lying about "in idleness." When it has done its work, send it off to be recharged.

# Prizes valued at £200 for Readers

*Full details of our competition offering a free trip to Java and a course through the Marconi Radio School*

"**A**S the steamer twisted and turned through this archipelago for most of the time, she seemed to be quite surrounded with islands, so that it was difficult to guess where lay the next turning of our course. Islands of all shapes and sizes surrounded us, some so close by on either side that we seemed to be able to make out each separate tree and each one revealing, as we passed it, further extensive vistas of clear, light green water and more islands still, and occasionally, through narrow passages, the horizon, over the top of which were blurry, hazy objects revealed by the glass as the tops of trees."

This was part of a talk on a trip to Java through the East Indies you heard from 2FC on September 24. The speaker continued:

"The purity of the early morning air, together with the clear sunshine, enhanced the grandeur of this panorama. The calm waters of the sound mirrored each island and lazily shuffled along white, lonely little beaches, framed in groves of the greenest

foliage; while beyond this rose great bush-covered heights. Many islands, too, were mere sandy strips with a few gaunt coconut palms spread haphazard over them; many were simply like little wooded mounds rising sheer out of the sea. But most of these islands were hilly. The changing effects in the general panorama caused by the motion of the ship as she left astern each island in turn, and entered yet another group, formed a scene whose beauty beggars description."

Made you want to make the trip, didn't it? We will make you an offer.

Wireless Newspapers will give a free, first-class return trip to Java and Singapore to the reader securing the greatest number of pre-paid subscriptions to "Wireless Weekly." This voyage costs us £100, and we will pay the winner £50 for incidental expenses.

In addition to this prize, by special arrangement with Amalgamated Wireless (Aust.) Ltd., we will present a full course, through the Marconi School of Wireless, to the youth between the age of 16 and 18 securing

the greatest number of pre-paid subscriptions to "Wireless Weekly" over a period of three months, beginning on September 10.

An intensive Marconi course lasts approximately 12 months, according to the ability of the scholar. During that time he is not only following his hobby, but he is also preparing for the future. And it matters not whether he lives in the city or the 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,

Having finished the course, the student will sit for examination conducted by the Postmaster General's Department, and, on passing, he receives a first-class Wireless Operators' Certificate from the Postmaster-General. This qualifies him for the position of a ship's operator, and paves the way to the title of radio engineer.

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 .....



The Diploma of Merit, awarded to Amalgamated Wireless (Aust.) Ltd., for the Company's display at the New Zealand and South Seas Exhibition at Dunedin.



# Studio News & Notes

## RACING.

From Randwick will be given a complete description during Saturday afternoon, of the A.J.C. Spring meeting. In the evening, a popular programme will be presented, including the first appearance of Mr. Kerwin Maegraith, imitator, and Mr. Cliff Clegg, novelty pianist. Miss Dorothy Dewar, comedienne, and Mr. Mayo Hunter and his novelty jazz band. A talk on "Racing," will be broadcast by Captain Fred Aarons.

## WEEK END SERVICES.

The morning service from St. Stephen's, Presbyterian Church, Phillip Street, City, and the evening service from St. Mark's, Darling Point, will be broadcast from 2FC on Sunday. Before the church service, a vocal recital arranged by Mr. Bennett-North will be given in the studio, and a talk on "Hymns," by Mr. William Adams, musically illustrated by Mr. Ewart Chapple at the organ. After the church service, a band concert by the N.S.W. State

Military Band, will be given from the Grand Opera House. In the afternoon, an organ and vocal recital will be broadcast from the Petersham Congregational Church, arranged by Mr. Christian Hellemann.

## 2BL'S SUNDAY SERVICE.

The Sunday church services to be transmitted on October 10, by 2BL, include the Enmore Tabernacle in the morning. At 3.30 the Bible Class, conducted by Mr. Cairo Bradley, will be broadcast, and the evening service will be broadcast from Chalmers Street Presbyterian Church.

## RACE DAY.

On Saturday, October 9, practically the entire day will be devoted to the transmission of sporting information at 2BL. Race results and other sporting information will be placed on the air immediately after each particular event is concluded.

## CAPTAIN FRANK HURLEY.

When Frank Hurley gave his story of the Shackleton expedition, in the studio recently, the recital was so gripping that even the most blasé studio hand was enthralled. A well-known business man of Sydney told the studio that he had a large bridge party on that night, and at half past nine, when the Captain started, they laid their hands down for a moment. Without any suggestion of exaggeration it was stated that bridge was abandoned, and the whole room full were practically glued to the loud speaker until the recital was finished, at 10.30 p.m. So vivid were the effects worked into the picture, and so dramatic was the tale told, that this night will be long remembered by listeners.



Miss Gladys Briggs, 2FC contralto.

## BRITISH DELEGATION LISTENS TO RADIO.

The visiting members of the British Parliamentary Delegation will be at Canberra on October 12, on the occasion of the handing over of the Speaker's Chair. That evening they will be tendered an "At Home" at the Hotel Canberra, and 2FC has been specially asked to prepare a programme from 8.30 p.m. onwards, so that they can be entertained in the lounge. A series of loud speakers have been installed in the hotel.

## BRITISH PARLIAMENTARIANS.

The Marquis of Salisbury, Mr. Arthur Henderson, and other members of the British Parliamentary Delegation, will speak at a public meeting in the Hippodrome on Thursday, October 7, under the auspices of the League of Nations. Exclusive rights to broadcast these speeches has been secured by 2FC.



Miss Peggy Dumbur, 2FC contralto.

# Heard Around the 3LO Studios

THE latest figures in wireless licenses still show Victoria away in the lead. It must be very unpleasant reading for those people who love to traduce the work of the Victorian leading station, because it is a lamentable fact that licenses most surely follow as the programmes lead. Bad programmes mean few licenses, and vice versa.

3LO is enlarging its service to listeners. To meet the wishes of a large number of people who love to arrange dances (music supplied by 3LO), that station has arranged to have three-quarters of an hour tacked on every night to the ordinary programme. When the chimies strike eleven, all the little Cinderellas of both ages who don't want to dance can put out the eat and creep to bed. The youngsters, however, can put on their dancing pumps, back the furniture up against the wall, roll back the old carpet, and tune in to a jolly dancing orchestra. I'll bet eleven will be the most popular hour in most suburban and country homes, and 11.45 the most unpopular.

Have you ever reflected how wireless is changing even the jokes of this age. Once upon a time a pantomime in Melbourne was the source of supply of all the popular "hits" in the way of songs, and the latest "gags" in the way of jokes. They worked their way as far as Dandenong by the end of the run, and had reached Gippsland by the end of a year. When the city was whistling "Tipperary," in 1914, the country was still humming "Dolly Gray." Further outbreak there were still folk who played "Two Little Girls in Blue" on the concertina.

Now all that is changed. The very minute "A Certain Party" becomes popular in Melbourne, sheep men and wheat farmers are whistling it as they round up the horses for the day's work 200 miles away. The chances are that some of them, with good sets have picked it up from America a month before it reaches our cities.

Undoubtedly this "up-to-date-ness" will gradually take away the contempt many city folk feel for those in the

*Studio gossip and news about programmes and artists at 3LO as told here by our 3LO Correspondent*

country—a contempt founded merely on a sense of superiority in the possession of things the country lacks. Chief of these possessions is knowledge. It always makes a city man grin to hear last year's tune hummed in a country town. More than anything else, it makes him describe his country cousin as a "hick," a "yob" and a "yokel." The wearing of last year's fashions has the same effect on the city girl when she goes for a country holiday.

Once put city and country on an equality of knowledge, and the boasted superiority vanishes. This is exactly what 3LO Melbourne is doing. It broadcasts lectures, bright talks on what the world and his wife are doing, the latest music, the latest fashions, and how to acquire them. Very soon, the country people will know as much as town folk of town matters. Will the city people know as much as country folk on country matters? I doubt it. The worm will turn, and the countryman will wonder in what backwater the city chap and his girl have been living not to be in possession of the latest "dope" on agricultural matters. Oh, yes, wireless is wunnerful.

3LO is going in for a regular orgy of outside broadcasting in its coming programmes. Werribee is having a big concert, for which it has been preparing for weeks. This will be broadcast by 3LO on October 4. Then on the following Wednesday a concert from Geelong will be put on the air. The Sunday previous, I forgot to say, a fully choral Masonic service will be broadcast. At night, in the studio, the new big room will be used by the Collingwood Band and the Southern Choral Union in a remarkable programme of choral singing.

One of the most interesting items 3LO has ever arranged is scheduled for the 6th October. It represents rather a triumph for 3LO, because

it has captured rather a "big fish" in the person of Mr. Theodore Fink.

A fine, jolly, rich personality is Mr. Fink's, which has seized from each year of his life the best of its flavour, just as a meerschaum pipe picks up its colour from constant use. Mr. Fink has lived a long time, passing through the most colourful, interesting, strenuous years of our history. For many of these years he has been a Member of Parliament, and so has actually taken part in the making of history. Unlike most men who exist through the years, Mr. Fink has really lived them. His friends are legion, as are his interests. Art, literature, journalism, politics, clubland, sport, his wonderful catholic nature has found in all of them something to interest him. He has fathered young artists and seen them grow from nonentities into famous brushmen. A capital talker, Theodore Fink has been in mighty request at dinners, where good talk was the best passport to a seat at the festive board. Intimately connected with the stage, as lawyer for the firm of J. C. Williamson, he has countless stories of stageland to add to those about art and letters.

He speaks always with a chuckle in his voice. Nothing is so important to him that he cannot laugh at it gently. He has seen so many years come and go with their promise of prosperity or their threat of ruin, that he habitually disbelieves in ruin, and helps to bring the prosperity. Political bugaboos don't frighten him. He has helped too often to fashion them, and he has that supreme virtue of being able to laugh at himself, when he tells a story. Unlike many good raconteurs, he is not the hero of his own legends, but very often their villain.

Theodore Fink is going to talk on "60 Years of Victorian Life," and I would strongly advise everyone to tune in to 3LO that night, and as often as he speaks. You will soon get to know his voice, a low, throaty tone with a rich chuckle in it, as though he were laughing at things he really couldn't tell you. He will

not read his reminiscences. He is so constituted that to read a set piece would "bail him up." He will just chat to you as he recollects things, and he is quite capable of stopping half way through some narrative and breaking out into another which he has suddenly and happily remembered. It is certainly safe to say that no such talker, both in manner and matter has been snared by 3LO before.

I should think that the advent of so many new shows will give 3LO an opportunity to put the theatre on the air again soon. "Is Zat So?" should broadcast well, if the snappy Americanisms do not come over too fast to be registered. Anyway "Katja," with its beautiful music and its inimitable humour by Barrett Leonard, the new comedian, will be "sure-fire" stuff for the radio.

Knowing that to have a good pianiste is decidedly more than half the battle, 3LO has engaged a special artist to accompany the young vocalists who make the children's hour such a source of delight. This is Miss Elsie Bradshaw, a delightfully sympathetic accompaniste, who has made the study of these little songs her special hobby, and it is to her artistic playing that a great deal of the success of these "hours" is due.

Mr. Raymond Ellis, the well-known operatic singer, who has done such good work from the 3LO studio, has entered upon the last fortnight of his engagement in Melbourne. During his brief season, he has made a great many friends, and the many young singers who have written asking for his professional advice as to the phrasing and rendering of various songs, have been delighted with his kindly criticisms and helpful suggestions. During the last week of his season, Mr. Ellis has decided to let his programme consist entirely of "special request" numbers, which will include a great many operatic favourites.

The many radio friends of Mr. C. H. Sinclair will regret to learn that he passed away on September 21, at Long Bay Hospital. Mr. Sinclair was an enthusiastic radio amateur, and did much to further the cause in the early days of wireless in Australia.

# Dealer Agents Wanted

To sell up-to-date and efficient Radio Sets under our sound merchandising plan.

If you have the business organisation and sales ability to sell profitable Radio Sets we are in the position of being able to stand right behind you.

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If you want to take the safe, sure road to lasting success, write to-day for full information about a Mingay's Wireless Dealer Agency in your district.

## Mingay's Wireless Mfg. Ltd.

56 ALMA STREET, DARLINGTON, N.S.W.  
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# YOU CAN NOW RECEIVE ALL THE BROADCASTING

Including 2 FC on a

## Neutrodyne or Browning-Drake

### NEUTRODyne PARTS.

	£ s. d.
1 Bakelite panel, 22 x 7 x $\frac{1}{4}$ inches	0 9 8
5 UX sockets, 2/9	0 13 9
3 De Jur, 30 ohm rheostats, 3/9	0 11 3
1 Airzone Neutrokit	1 12 6
3 S.L.F. low loss condensers, 10/6	1 11 6
3 Emmco dials (vern.), 6/9	1 0 3
1 Double circuit jack	0 2 4
1 Single circuit jack	0 1 9
1 Terminal board	0 2 6
1 Grid condenser (best)	0 3 6
1 Gridleak, 2 megohms	0 1 0
1 .002 condenser	0 1 6
1 Saturn battery switch	0 3 0
1 Formo Transformer, 5 to 1	0 15 6
1 Formo Transformer, 3½ to 1	0 15 6
1 Doz. square buswire	0 10

Total . . . . . £8 6 4

### BROWNING-DRAKE PARTS.

	£ s. d.
1 Bakelite panel, 20 x 7 x $\frac{1}{4}$ inches	0 8 9
4 UX sockets, 2/9	0 11 3
3 De Jur, 30 ohm rheostats, 3/9	0 11 3
2 S.L.F. low loss condensers, 10/6	1 1 0
2 Emmco vernier dials	0 13 6
1 2 inch dial	0 1 0
1 Double circuit jack	0 2 4
1 Single circuit jack	0 1 9
1 Terminal board	0 2 6
1 Grid condenser (best)	0 3 5
1 Gridleak	0 1 0
1 .002 condenser	0 1 6
1 Saturn battery switch	0 3 0
1 Formo Transformer, 5 to 1	0 15 6
1 Formo Transformer, 3½ to 1	0 15 6
1 Doz. square buswire	0 10

Total . . . . . £5 14 2

### RADEX VALVES

Are highly recommended by us for both the above Circuits.

**UX Base 199 — 6/9 each — UX Base 201a**

### COUNTRY CLIENTS,

If the article you require is not in our adds—we either carry it in stock or we will be pleased to procure it for you. We stock:

Mullard Valves.  
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## THE ECONOMIC RADIO STORES

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569 HUNTER ST. WEST, NEWCASTLE

Phone M 3049.

**MR. O. F. MINGAY.**

Mr. O. F. Mingay, who is the Managing Director of Mingay's Wireless Manufacturing Ltd., is well known throughout the wireless industry. He recently resigned the position of New South Wales radio manager for Messrs. Harringtons Ltd., where he was in charge of both the sales and the manufacturing section.

Prior to this, and for over three years, he was radio manager of the Burgen Electric Co. Ltd., which position he vacated to go to England, but the intervention of the Seamen's Strike prevented his departure.

Mr. Mingay's company proposes to specialise on the manufacture of sets, and of a standard character. A 5-valve set with different styles of cabinets, is being produced, but the set itself will be a standard right through.

It is also proposed to manufacture an 8-valve set, details of which will be furnished later. A very up-to-date new factory of two storeys has been equipped, and over 3,500 square feet of floor space will be devoted to the manufacture of up-to-date Australian sets.

**ROSE MARIE.**

The Haymarket Orchestra will be broadcast from 2FC on October 1, and a dual transmission carried out at the same time from the projection room at the Film House, describing new releases. At 8, by permission of J. C. Williamson Ltd., the first act of "Rose Marie" will be broadcast from Her Majesty's Theatre. At the conclusion of this, at 9.30, there will be broadcast from the Wentworth Cafe, by permission of Mrs. MacClurean, a special night of dance music, played by Henry Santry's band. During the intervals, the following artists will be heard from the studio—Madame Vera Tasma, soprano, and Mr. Laurence Halbert, baritone.

**RANDWICK RACES.**

Every race at Randwick during the A.J.C. Spring Meeting will be described in running. Up to the present time, the 2FC Racing Commissioner has called the first, second and third horses in 85 races, so far without a mistake.



## **FARMER'S Standard 6-Valve Receiver**

*in Cabinet of Tasmanian Blackwood*

**Complete with Loud Speaker  
and Accessories**

Farmer's Standard 6 Valve Receiver has definitely established its superiority over all 5 Valve Receivers now being manufactured in Australia. Reception is clear and distinct, the tuning is sharp, and there is absolutely no sign of interference. Moreover, it is built to last, only the best components being used in its construction.

The cabinet in which it is supplied is of finest Tasmanian Blackwood, highly polished—worthy of a prominent position in any home.

An "Amplion Dragon" Loud Speaker, recognised as one of the finest of Loud Speakers, is also supplied. It has an improved non-resonating sound conduit with an oak trumpet hinged to an electro-plated base, which allows the horn to be tilted to any angle.

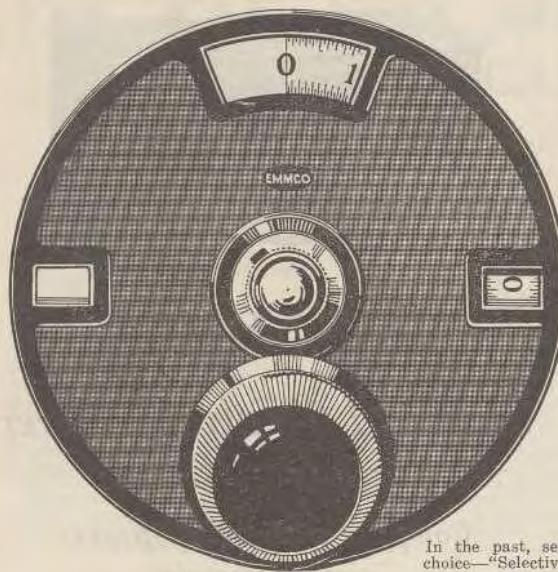
High-tension "Winchester" B Batteries, and "Radiotron" UX201A are used throughout, whilst a "Masse" Accumulator with capacity of 60 A.A. (actual) is included in the accessories supplied.

Price of the Receiver is ..... £78/10/-

## **FARMER'S, SYDNEY**

**BOX 497 AA, G.P.O.**

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



*Accurate  
Tuning  
Made  
Easy*

BAKELITE FRAME

**9/6**

METAL FRAME

**6/9**

Obtainable with Clockwise and  
anti Clockwise Movement

In the past, set-builders have had to make this choice—"Selectivity or Ease of Control."  
**NOW, AND IN THE FUTURE, YOU CAN HAVE BOTH.**

The PERFECT Radio Receiver combines extreme Selectivity and Accuracy of Tuning, and these qualities can be obtained by the simple expedient of using the **BEST** Vernier Dials.

New and improved features make the EMMCO Vernier Dial the best that can be obtained. The Hair-line adjustment (a special feature of the EMMCO) ensures absolute selectivity, and the very finest possible tuning.

Mark the call-sign of each station in the logging window (another special feature of the EMMCO), and you can always return to it at once.

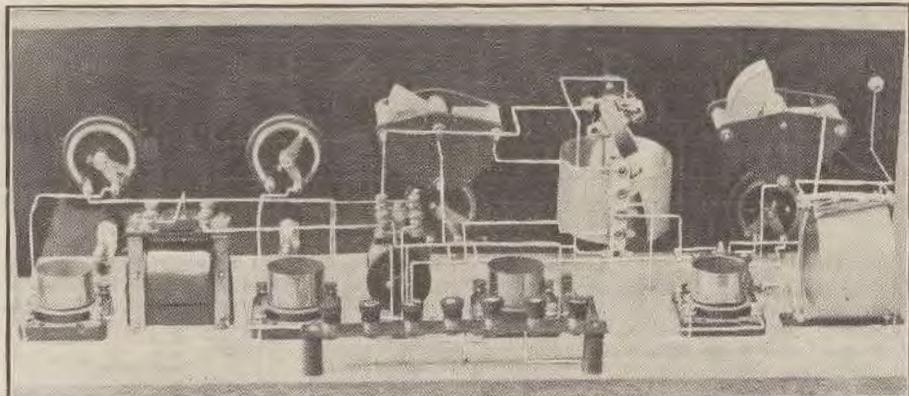
The EMMCO VERNIER DIAL makes the ordinary variable condenser as sharp as a Straight Line Frequency, and there can be no back lash.

**GET THE BEST—GET AN EMMCO.**

***Ask Your Dealer for EMMCO***

Manufactured by

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



Back of Panel View.

## Full Constructional Details and Working Diagrams of a Browning-Drake Receiver

**P**ROBABLY the most popular four-valve receiver for wavelengths between 250 and 500 metres is the Browning-Drake. It is simple to construct, simple to tune and is wonderfully selective. The radio frequency stage is the whole secret of its popularity. The amplification is often as high as nine compared with the usual three to four of the standard aircore radio frequency transformer which means more power to the valve.

It seems somewhat strange when you come to think that a valve with an amplification factor of seven should be used in conjunction with a transformer with an amplification factor of three. A certain amount of waste or loss is incurred, and we all know that loss is detrimental. It was this fact which caused Glenn H. Browning and Frederick H. Drake, both research fellows of the Harvard University, to set about finding a more satisfactory tuned air core transformer in 1923.

Many and varied were their experiments and at last the regenerator was produced. This was a very big step in radio frequency amplification, and even to-day it has not been surpassed. The regenerator consists of

a primary, secondary and a tickler coil, the secondary being the outside coil on the top of which, wound on a rotor, is the tickler coil. The primary coil is fitted inside the secondary coil at the filament end. When it was produced a wave of enthusiasm spread all over America and to-day it hasn't died down.

### Coil Kit.

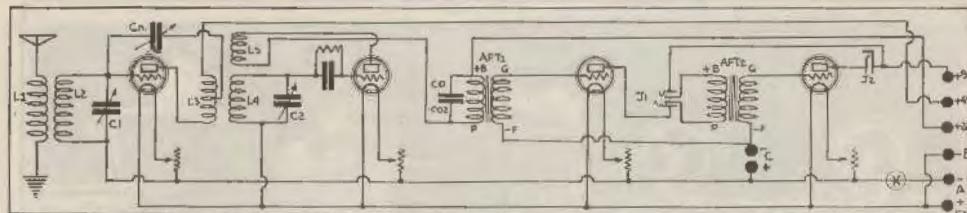
Similar in many respects is the Hammerlund-Roberts coil and it is this coil which I have used in the

Browning-Drake receiver I am about to describe. These coils are known by the name of Airzone, but those folks who wish to employ a genuine Browning-Drake regenerator are catered for by the Radiotek brand. Both are particularly good, and are manufactured locally. From the circuit diagram reproduced here, it will be noticed that the first or radio frequency valve is neutralized by means of a neutralizing condenser. This is important.

Some people may find difficulty in neutralizing the standard UV.201A valves. To overcome this a D.V.3 or UV.199 will be found much easier. In each case a small resistance will have to be inserted in the filament lead if a six volt accumulator and UV.201A valves are employed for detector and two audios. Another method is to employ all the same type of valves, such as the aforementioned or Cossors Point One, all of which are satisfactory. Should you prefer the 199 type the socket will have to be altered. To overcome the resistance a Power Plus True Blue will find favour. Other valves may be found quite satisfactory—this you can determine for yourselves.

### LIST OF PARTS

- 1 Panel, 24" x 7" x 3/16" (Radion or Dilecto).
- 2 .0005 mfd. variable condensers.
- 4 Rheostats.
- 1 Browning-Drake kit.
- 1 Neutralizing condenser.
- 1 D.C. jack.
- 1 S.C. jack.
- Aerial and earth terminals.
- 4 Valve sockets.
- 2 Audio transformers.
- .00025 grid condenser and leak.
- 7 Terminals and terminal board.
- 1 Baseboard, 23" x 9" x 3".
- 1 .002 fixed condenser.
- Sundry screws, etc.



### *Circuit Diagram.*

### Circuit Explained.

Looking still further at the circuit diagram a word of explanation will not be out of place here. L1 and L2 are the aerial coupling coil and grid coil, respectively, whereas L3 is the primary of the regenaformer, L4 is the secondary, and L5 is the tickler. It will be seen that neutralizing condenser, Cn, is connected from the grid of the first valve to the centre tap of L3. This is the arrangement to be employed with the Airzone kit. Where the Radiokes regenaformer is employed the neutralizing tapping will be found on the filament side of L4, hence the neutralizing condenser will be connected thereto.

A.F.T.1 and A.F.T.2 are audio frequency transformers, No. 1 preferably being of a ratio of five to 1, and No. 2 of three and half to one. It will be seen that a jack (J1) is provided making it possible to plug the speaker

into the third valve for a soft effect, greater volume being, of course, obtainable by plugging into the second jack (J2).

An important feature to be stressed is the necessity of employing the fixed condenser Co. across the primary of the first transformer. It was found that a capacity of .002 mfd. was most suitable for this purpose, to dispense with it means that the set will not work properly, since regeneration without it is practically impossible. Keep this important factor well in mind.

Condensers C1 and C2 both are of a capacity of .0006 mfd., and it may be found essential to use a vernier dial on C2 as remarkably sharp tuning is obtained here. A rheostat for each valve is used; the first and second may be found slightly critical of adjustment. However, practice alone will teach you this. At the

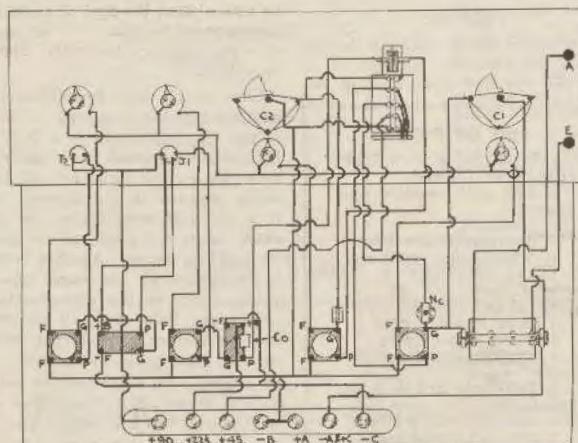
point X on the diagram may be inserted a battery switch which will cut off all the valves at the one time, without having occasion to move a rheostat.

## **Construction.**

In constructing this most excellent receiver pay careful attention to the details, and follow out the drawings produced herewith. First of all, mark out your panel, in accordance with the panel layout. Again be advised regarding the prudence of using a centre punch to overcome the difficulty of drill slipping. When you are entering the drill make sure that the point of the drill is properly placed in the centre punch hole, and be careful that the drill does not wander all over the panel, thereby causing you to have recourse to the use of a round file to correct this defect. Particularly does this apply to the essential holes for the variable condenser. As will be seen from the panel layout, provision for the centre holes only of the variable condensers is made, as, unfortunately, there is no standard mounting for different brands of condensers. Each manufacturer has his own method of mounting, and supplies with the condenser a template for this purpose.

### Assembling.

After having drilled your panel, assemble thereon the necessary apparatus. Firstly, mount the lighter articles, such as the jacks and rheostats, leaving your heavy condensers until the last. Make sure that each piece of apparatus is screwed tightly to prevent slipping. Temporarily screw this panel to your baseboard on which mount the rest of the components. The back of panel view will provide you with an excellent scheme of layout of baseboard. Follow this as closely as you can, noting, of



#### *Back of Panel and Baseboard Wiring.*

course, that you allow reasonable space between the parts. From this photograph, it will be seen that the aerial and grid coils are mounted at right angles to the regenaformer. This is most important in order to overcome any magnetic coupling which is liable to take place between these two units. The neutralizing condenser employed in this particular receiver has been mounted directly on to the grid terminal of the radio frequency valve socket. This is a most convenient place for this little condenser, but should you use a different type, a most suitable place for the acceptance of this condenser will be found directly behind the radio frequency valve.

If your audio transformers are mounted less than four inches apart, always place one at right angles to the other for the same reasons as mentioned regarding the regenaformer and the aerial coil. This is really a golden rule and applies to all sets and not to this one only. Frequently have we had complaints from people experiencing a high pitched whistle in their receivers. This whistle, they state, is non-existent after the first audio transformer, but is pronounced when the loud speaker is plugged into the second jack. Magnetic coupling is the cause, and is invariably produced by the transformers being too close to one another and not set at right angles.

#### Wiring.

The wiring may now be proceeded with. Approximately 15 lengths of busbar will be required for this purpose. Make this a very neat job. A pair of round-nosed pliers will make nice little loops, which will fit snugly underneath the terminal heads of the different components. Keep your grid and plate wires well apart, never under any circumstances allowing them to run parallel one with the other. Compare the back of panel

view, the back of panel wiring diagram, and the circuit diagram as you proceed with the wiring. Mark off with a blue pencil each wire as it is inserted in the receiver, and you will then be in a position to know if any connections are missed.

#### Warning ! ! !

At this stage, let me interpose a word of warning. Should you have occasion to use a UV.19A type of valve in the radio frequency stage, the wiring of this valve will be slightly different to the back of panel wiring diagram. Examine your valve socket carefully and you will notice that your filament terminals, instead of being on the one side of the socket, are at diagonal corners. Watch this, otherwise a new valve may be required immediately you connect your batteries.

It is always advisable to wire up as many of the components on the panel as is possible before finally screwing your panel to the baseboard. Your rheostats, for example, all have one side connected together, and the regenaformer and its tuning condenser have certain connections to them. Wire these up first.

The same rule applies to the baseboard. One side of each filament socket has to be connected together, and a fair amount of wiring is essential with the audio transformers. Having gone as far as you can, then permanently attach your panel to the

baseboard and complete your wiring, connecting up your battery terminal board last of all.

Immediately after finishing the wiring, check off very carefully, and then test your filament circuits. A good plan is to connect your "A" battery to your "B" battery terminals, turn each rheostat full on and should any of the valves light up you may be sure you have made a very grave error. Check off again to rectify this, as otherwise when you connect your "B" battery this action will be attended with dire results.

#### Plate Voltage Suggestions

Granted, however, the valves do not light up, connect your "A" battery to the proper terminals, the "B" battery to its respective terminals. As a suggestion of "B" battery voltage, you will notice from the diagrams that 45 volts is used on the radio frequency, but there is nothing at all to prevent anything up to 90 volts being used on this stage. The detector voltage of 22½ volts will be found eminently suitable for most valves, more or less, of course, to be used according to the tone and volume desired.

#### Operation.

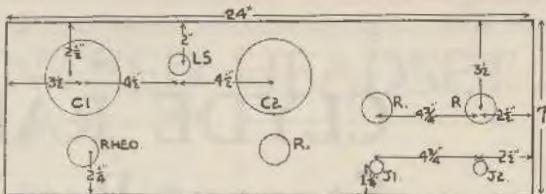
The aerial and earth may now be hooked up and your earphones or speaker plugged into the first jack, that is J1. Turn up your rheostats in order that your first three valves light up. Slowly rotate both variable condensers until you hear the local station. Pay particular attention to your tickler; rotate this until the squeal which may be present disappears.

The grid leak is most critical in this receiver. Try several different values, and retain that one which is most suited to the receiver. It might



*The Finished Panel.*

(Continued on Page 39.)



*Drilling template for panel.*

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Friday, Oct. 1

2 F C

## EARLY MORNING SESSION.

- 7.—Time signals. The Chimes of "Big Ben" and Announcements.  
7.5—Weather information, rainfall, temperatures, astronomical memoranda, shipping intelligence, mail services.  
7.25—Investment Market, Mining Share Markets, Metal quotations.  
7.30—Wool Sales, Broadcasts Markets, Interstate Markets, Produce Markets.  
7.40—Sydney Morning Herald" News Service.  
8.—The Chimes of "Big Ben," Cricket Scores, A Cheery 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".  
10.5—Late "Sydney Morning Herald" News service.  
10.15—Music from the Studio.  
11—Progress Cricket Scores, Cublets.  
11.15—Cooking talk and Recipes by Miss Ruth Purdy.  
11.30—Close down.

## MIDDAY SESSION.

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

## AFTERNOON SESSION.

- 2.30—Chimes of "Big Ben" and Announcements. Broadcast from the Haymarket Theatre, Sydney: Operatic Orchestra, under the direction of Mr. Stanley Barker.  
3.30—From Farmers Tea Rooms, The Oak Hall Trio will play (leader, Mr. Horace Keats).  
4.40—Miss Annie Payne, mezzo.  
4.45—The Oak Hall Trio.  
4.55—Music from the Studio.  
4—Miss Gladys Finister, soprano.  
4.5—Piano solos, by Mr. Ewart Chapple.  
4.20—Miss Annie Payne, mezzo.  
4.35—Miss Gladys Finister, soprano.  
4.40—Music from the Studio.  
4.45—Stock Exchange, Third Call.  
4.46—Music from the Studio.  
5—Chimes of "Big Ben". Close down.

## EARLY EVENING SESSION.

- 6—Time Signals. The Chimes of "Big Ben" and Announcements.  
6.5—The "Hello Man" talks to the children.  
6.40—Talk to the Elder Children.

- 7—A talk by the 2FC Racing Commissioner.  
7.15—From the Studio, "Evening News" service.  
7.20—Dobley's market reports (wool, wheat, stock), fruit and vegetable markets.  
7.40—Close down.

## NIGHT SESSION.

- 7.55—The Chimes of "Big Ben" and Announcements.  
8—Broadcast from Her Majesty's Theatre, Sydney, by permission of Messrs. J. C. Williamson & Sons, Ltd., the First Act of the musical comedy, "Flame Marie".  
8.10—Studio: Madama Vera Tasman, soprano.  
9.10—Mr. Harrison White, banjo solos.  
9.15—Madama Vera Tasman, soprano.  
10—Broadcast from the Lyceum Theatre, Sydney, orchestra under the baton of Mr. Emanuel Aaron.  
10.45—Mr. Harrison White, banjo solos.

Farmer's service, Sydney, call sign 2FC, wave length 1100 metres.

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

Trinity Hall Broadcasting Station, call sign 2KY, wavelength, 280 metres.

Theosophical Broadcasting Service, call sign 3GB, wavelength, 316 metres.

Burgen Electric Co. Ltd., Sydney, call sign 3DE, wavelength, 316 metres.

Broadcasting Co. of Australia, Melbourne, call sign 3LO, wavelength, 371 metres.

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

Queensland Radio Service, Brisbane, call sign 4QG, wave length 385 metres.

Central Broadcasters Ltd., Adelaide, call sign 5CL, wave length 396 metres.

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

Westralian Farmer's, Perth, call sign 6WF, wave length 1250 metres.

Tasmanian Broadcasting Pty. Ltd., Hobart, call sign 7ZL, wave length, 655 metres.

- 10.50—Mr. Laurence Halbert, baritone.  
11—Broadcast from the Wentworth Hotel, Sydney: Wentworth Cafe Dance Orchestra.  
12—National Anthem. Close down.

## 2 BL

## EARLY MORNING SESSION.

- 7.35—Physical Training and Health Exercises.  
7.40—Talk on Health and Hygiene.  
7.45—Physical Training and Health Exercises.  
7.45—Broadcasters' Special News Service.  
7.52—Special News from Rugby.  
7.55—Musical Programme from the Studio.  
8—G.P.O. Clock and Chimes. Close down.

## MORNING SESSION.

- 10—G.P.O. Clock and Chimes. Special News Service from the "Daily Telegraph."  
10.10—Music from the Studio.  
10.25—Special news from the "Daily Telegraph."  
10.45—Music from the Studio.  
11—G.P.O. Clock and Chimes. Special Cricket Session.  
11.5—Musical Programme from the Studio.  
11.20—London Metal Quotations.  
11.25—Broadcasters' Information Service, Importing Mails, Shipping, Weather, Rainfall.  
11.45—Music from the Studio.  
11.45—Women's Session. Social notes by Mrs. Jordan.  
12—Talk by Miss Helen Jean Beagling, on "How to Prepare for the Dance."  
12.30—Broadcaster's Turf Expert will discuss the training operations and horses' form from Randwick.  
12.45—"Sparta" Instrumental Quartette, under the direction of Cyril Casaling.  
1.30—Sydney Stock Exchange calls.  
1.45—Latest sporting information from the "Sun."  
2—G.P.O. Clock and Close down.

## AFTERNOON SESSION.

- During the afternoon, results of races broadcast immediately after each race, by courtesy of "The Sun" Newspaper.  
2—G.P.O. Clock and Chimes. Weather Report and Social Notes from "The Sun."  
3.10—Resume of Night's Programme.  
3.15—Civil Service Restaurant Trio under the direction of Miss De Curcy Bremer.  
3.30—A talk on English Literature and Poetry by Mr. J. M. Prentice.  
4—Music from the Studio.  
4—G.P.O. Clock and Chimes. Music from the studio: Civil Service Restaurant Trio, under the direction of Miss De Curcy Bremer.  
4.15—Musical Programme from the studio.  
4.30—Serial Story, entitled "The Scarlet Cuckoo," by C. M. Sublette.  
4.45—Music from the Studio.  
4.45—P.T.O. Clock and Chimes. Producers Distributing Society's Market Report.  
5.10—Shipping Information when available.  
6.15—G.P.O. Clock and Chimes. Close down.

## EARLY EVENING SESSION.

- 6—G.P.O. Clock and Chimes. The pupils of Miss Monica Sealy will entertain the Kiddies.  
6.45—Broadcasters' Dinner Orchestra.  
7.15—Australian Mercantile Land & Finance Co.'s Stock and Wool Report.  
7.20—Stock Report and Forecast, by courtesy of Mr. C. J. Marcus, Government Meteorologist.  
7.25—Stock Exchange Reports.  
7.31—Producers' Distributing Society's Fruit and Vegetable report.  
7.35—Fruit and Vegetable Reports ("Sun").  
7.35—Grain and Fodder Reports ("Sun").  
7.45—Egg and Poultry Market report.  
7.45—Country news from "The Sun."  
7.55—Close down.

## NIGHT SESSION.

- 8—G.P.O. Clock and Chimes; Hoyt's Imperial Orchestra under the direction of Mr. Lionel Hart, broadcast from Hoyt's Picture Theatre.  
8.30—Miss Thelma Houston (contralto).  
8.30—Mr. Charles O'Mara (Irish comedian).  
8.32—Talk concerning your valve set.  
8.42—Hoyt's Imperial Orchestra.  
9—G.P.O. Clock and Chimes; Resume of following day's programme.

9.3—Weather Report and Forecast by courtesy of Mr. J. C. Maree, Govt. Meteorologist.  
8.6—Sporting Talk by the Senior Sporting Expert of "The Sun" on "The Prospects of Tomorrow's Races."

9.30—Interval.  
9.35—Miss Thelma Houston.

9.42—Lecture by Mr. J. M. Prentiss.

10.2—Mr. Charles O'Mara.

10.18—Cec. Morrison and his Gloomcheasers, from the ballroom of the Bondi Casino. During the intervals between dances, News Stories by courtesy of "The Sun" will be broadcast.

11—From the Studio: The Palm Grove Orchestra under the direction of Mr. Stan Fotheringham.

12—G.P.O. Clock and Chimes; National Anthem.

## 2 GB

### EVENING SESSION.

6.45—Talks to Children, by "The Man from Dreamland."

7.15—"The Big Show."

7.30—Music from the Studio.

7.35—Announcements.

7.36—Instrumental Trio.

8—Address, "Dr. Annie Besant, Celebration of 80th Birthday," by Rt. Rev. C. W. Leadbeater.

8.30—Instrumental Trio, by Haydn.

8.40—Songs by Miss Hilda Boyle.

8.45—Violin solo, by Miss Monica Horler.

8.48—Announcements. Results of Hickard's Home Endowment Ltd., ballot.

9.10—Piano solo by Miss Ada Brook.

9.20—Address by Professor Ernst Wood, on "The Communal Sense."

9.35—Songs by Miss Hilda Boyle.

9.47—Violin solo, by Miss Monica Horler.

## 3 LO

### MIDDAY SESSION.

12—British Official Wireless News from Rugby; Reuters and the Australian Press Association cables.

12.45—Stock Exchange Information; Meteorological Information; Weather Forecast for Victoria, Tasmania, South Australia and New South Wales.

1.1—Studio Orchestra.

1.16—Raymond Ellis, baritone.

1.17—Ruthie Langford, viola.

1.24—Studio Orchestra.

1.34—Raymond Ellis, baritone.

1.41—Studio Orchestra.

2—Close down.

### ARTERNOON SESSION.

3—Studio Orchestra.

3.10—Katherine Rochfort, soprano.

3.17—Robbie Pearce, baritone.

3.24—Teresa Tornier, cello.

3.31—Sylvestre and Roderique, entertainers.

3.48—Studio Orchestra.

3.49—Kathleen Borchart, soprano.

3.55—"Au Fait" of Messrs. Buckley & Nunn Ltd., "Fashion Talk."

4.10—Robbie Pearce, baritone.

4.17—Walter Smith, cornet.

4.24—Sylvestre and Roderique.

4.31—Studio Orchestra.

4.45—"Herald" news service. Stock Exchange Information.

5—Close down.

### EARLY EVENING SESSION.

5.45—Children's Hour. Answers to letters and birthday greetings.

6—Miss Maud Fane, now playing in "Tell Me More," will sing to the children, by permission of J. C. Williamson Ltd.

6.7—Stories by "Bibby Bunny," "Littlest's Fairy Story," "Black Beauty." "The Lost Princess."

7.40—"Argus" and "Herald" News Services; Reuters and the Australian Press Association.

8.53—Weather Synopsis. Shipping movements.

8.56—Stock Exchange Information.

8.58—Fish Market Report by J. R. Barrett Ltd.

8.4—River Reports.

8.6—Market Reports by the Victorian Producers Co-operative Co. Ltd., Haymarket sheep and Poultry, Mr. J. M. Chapman, dairy products, potatoes, onions, etc. Markets prices of oranges and lemons, supplied by the Victorian Central Citrus Association Pty. Ltd.

### NIGHT SESSION.

7.20—Under the auspices of the Department of Agriculture, Mr. E. Meekling, Senior Inspector of Fruit, "Plant Enemies at our gate."

7.46—Mr. Claude Fleming, now playing the part of Prince Carl of Koraja, in "Katuja," will sing to you from his dressing-room at the Theatre Royal, by permission of J. C. Williamson Ltd.

8—Collingwood Citizens' Band.

8.10—Mr. E. C. H. Taylor, Secretary Associated Public Schools, "School Life and School Sport."

8.39—Dr. Flord, organ recital, transmitted from St. Paul's Cathedral.

9—Mr. Frank Shand, Headmaster Trinity Grammar School, will speak under the auspices of the Victorian Amateur Athletics Association, on "Amateur Sport in School Life."

9.15—Collingwood Citizens' Band.

9.22—Raymond Ellis, baritone.

9.28—C. H. Loft, in ten minutes of banjo selections.

9.34—Mr. Leslie Brunning.

10.4—Collingwood Citizens' Band.

10.10—Raymond Ellis, baritone.

10.36—British Official Wireless news from Rugby. Road reports, supplied by the Automobile Club of Victoria.

10.40—Elsie Davies, soprano.

10.47—"Argus" news service. Meteorological Information. Announcements.

10.47—C. H. Loft will give some more banjo selections.

10.56—Collingwood Citizens' Band.

11—Dance Music by Ham Johnson's Monte Carlo Band.

11.45—God Save the King.

## 3 AR

### MORNING SESSION.

11.30—The British Official Wireless Press, received by S.A.R.'s operator from Rugby Wireless Station, England. Express train information. "Argus" news bulletin.

12—Time Signal Chime from the G.P.O., 1st Weather Forecast; Studio Barometer Readings.

12.5—Musical Selections, relayed from Hoyt's Deli and Butter Street. Mr. T. L. Campbell, on the organ.

12.30—Stock Exchange News.

12.40—Musical Selections.

12.55—Mail Notices. Shipping Movements.

1—Close down.

### APRIL 20TH SESSION.

2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Brien, special Birth-day month programme.

3—The Eric Trio; Miss Elsie Holdsworth (pianist); Mr. T. Healey (violinist); Mr. J. C. Williamson (drum).

4—Time Signal Chime from G.P.O.

4.5—Hoyt's Premier Orchestra.

5—Time Signal Chime from G.P.O.

5.0—Mr. Stanley Haines will talk on "Bolany" (Burbank).

5.0—Studio Signal: Studio Barometer Readings; Close down.

### EARLY EVENING SESSION.

5.45—The Children's Corner, by Uncle Rad.

### EVENING SESSION.

7.45—The British Official Wireless Press; Studio Barometer and Out-door Thermometer.

ter Readings.

8—Time signal from G.P.O.

8.2—Miss Grace Douglas, Miss Bas., Solo Pianist.

8.3—Miss Ethel Ross (soprano).

8.28—The Cyclades Instrumental Trio.

8.32—Mr. David Coates (Tenor).

8.32—Mr. R. Stanley Haines will talk on "Growing Chrysanthemums."

8.47—Mr. Oliver Bell (baritone).

8.54—Mr. Edwin Alexandra, entertainer.

8.55—The Cyclades Instrumental Trio.

9.18—Miss Ethel Ross (soprano).

9.28—Miss Grace Douglas, Miss Bas. (pianist).

9.28—Mr. W. G. Etherington will tell you "How to become quick at Figures."

9.37—Mr. David Coates (Tenor).

9.44—Mr. Edwin Alexandra, entertainer.

9.51—Mr. Oliver Bell (baritone).

10—Time Signal from G.P.O.; Studio Barometer readings; "Age" News Service, exclusive to S.A.R.

10.10—Lagrell's Ballroom Orchestra, under the leadership of Mr. Harry Nangle.

11—Close down.

## 4 QG

### MIDDAY SESSION.

10—"The Daily Mail" News Service.

1—Market Reports; Weather Information. "The Daily Mail" news, the "Daily Standard" news.

1.20—From the Hotel Carlton, Lunch Hour Music by the Carlton Orchestra.

2—Close down.

### AFTERNOON SESSION.

3.30—A programme of music from the Studio.

4.15 From the studio: "The Telegraphic" News; Close down.

### EARLY EVENING SESSION.

4.25—Tune-in.

4.30—The Children's Session. Stories by "The Sandman."

7—From the Council of Agriculture studio: The Farmers' Session; Market Reports; Lecturer Tariffs as they affect Primary Production. Mr. N. G. May, Secretary (Assistant Secretary, Council of Agriculture).

7.30—From the Studio of 4QG: "The Standard" News; Stock Exchange.

7.40—Announcements.

### NIGHT SESSION.

7.45—Lecture Session—A Talk arranged by the Workers' Educational Association.

8—A miscellaneous programme of musical and vocal numbers from the studio, including The Federal Band.

9—Week-end Road Information for motorists, relayed by the Automobile Club of Queensland; Weather Information, officially supplied by the Commonwealth Weather Bureau; Announcements.

9.10—From 4QG's Reception Hall: An organ recital by Mrs. Hilda Woolner.

9.30—From the Crystal Palace, Dance music.

10—"The Daily Mail" News Service; 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.

11.45—Vocalion number.

12—G.P.O. Chimes.

12.1—"Advertiser" News Service and Cricket scores.

12.15—Featuring a Stock Duo Art Number.

13.30—5CL Studio Orchestra will be heard in a series of classical numbers.

13.30—(approx.) Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.

2—G.P.O. Chimes.

## AFTERNOON SESSION.

- 3—G.P.O. Chimes.  
5.1—Relay from "Maple Leaf" Cafe—Orchestral numbers.  
4.45—From Studio—Serial Story.  
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.

## EVENING SESSION.

- 6.30—G.P.O. Chimes.  
6.31—Bedtime Stories, by "Auntie Peggy."  
7.30—Market Reports.  
7.45—Sporting Talk, by "Old Timer."  
8—G.P.O. Chimes.  
8.1—The Merrymakers Orchestra, interspersed with vocal items by Miss Ivy Jones, Mrs. Keith Steward, Messrs C. Verne and Brockbank.  
9.0—G.P.O. Chimes.  
9.1—Weather reports.  
9.30—Studio concert, continued.  
10.15—"Advertiser" News Service.  
10.30—Studio concert, continued.  
10.55—Station announcements.  
11.0—G.P.O. Chimes, National Anthem, and close down.

## 7 ZL

## MORNING SESSION.

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

## AFTERNOON SESSION.

- 3—G.P.O. Clock and Chimes.  
5.30—Hobart Stock Exchange quotations.  
5.55—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.  
3—G.P.O. Clock Chimes. "The Mercury" special Tasmanian news service. Railway auction produce sales. Weather information.  
4—Robert Stock Exchange quotations.  
5.10—Weekly gardening chat, by Mr. George Nation, of the Glen Nurseries, Cascade.  
5.25—Sports report, supplied by Mr. T. W. Newell of Hobart. Sports Diary.  
5.30—Miss Dulcie Tait, elocutionist; Miss Ruby Wallace, soprano; Miss Mauryeen Jones, contralto; Mr. Hubert Large, baritone; Mr. R. Williams, mouth, organ selections.  
5.50—"The Mercury" special interstate news service. Weather synopsis. Station announcements. National Anthem.



Saturday, Oct. 2

## 2 FC

## EARLY MORNING SESSION.

- 7—Chimes of "Big Ben" and Announcements.  
7.5—Music from the Studio.  
7.10—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, Dreadstuffs 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 Programme Announcements.  
9.25—Music from the Studio.  
9.45—A talk by the F.C. Racing Commissioner.  
10—Chimes of "Big Ben." Cricket Scores.  
10.15—Late "Sydney Morning Herald" news service.  
10.25—Australian Press Association and Reuters' Cable Services.  
11.15—A talk on Gardening by "Red Gum."  
11.30—Close down.

## MIDDAY SESSION.

- 12.35—The Chimes of 2FC and Announcements.  
1—Time Signals. "Evening News" midday news service and weather information. Broadcast from Randwick, on the occasion of the first day of the A.J.C. Spring Meeting, the whole of the racing and running description.

## AFTERNOON SESSION.

- 2.55—The Chimes of 2FC and Announcements.  
3—The Chimes of "Big Ben." Continuation of racing descriptions.  
5—The Chimes of "Big Ben." Close down.

## EARLY EVENING SESSION.

- 6—Time signals. The Chimes of "Big Ben" and Announcements.  
6.5—The "Hello Man" talks to the children.  
6.45—A Story for the Older Children.  
7—Broadcast from the Hotel Australia. Sydney orchestral items.  
7.10—News.  
7.40—Motor Talk No. 7, by Mr. J. L. Austin.

## NIGHT SESSION.

- 1.55—The Chimes of 2FC and Announcements.  
3—Broadcast from Crystal Palace Theatre, Sydney; incidental music to the picture, "College Days," featuring Harold Lloyd.  
8.30—from the Studio: A talk by Miss Gertrude Mack, on "Ancient Monuments of Mexico."  
8.50—Miss Dorothy Dower, soprano.  
8.55—Mr. Gladstone Bell, cello solos.  
9.5—Mr. Kerwin Maugraith, impersonator of well-known comedians.  
9.14—Mr. Lindley Evans, piano solos.  
9.24—A sporting talk by Captain Fred Adams, on "Racing."  
9.34—Mayo Hunter and his novelty jazz band.  
9.45—Miss Dorothy Dower in comedy numbers.  
9.50—Mr. Gladstone Bell, cello solos.  
10—Kerwin Maugraith, comedian, and Cliff Clegg, pianist-composer, in popular numbers.  
10.5—Mayo Hunter and his Jazz Band.  
10.16—Miss Dorothy Dower, soprano.  
10.20—Mr. Lindley Evans, piano solos.  
10.30—Kerwin Maugraith and Cliff Clegg in popular numbers.  
10.45—Mayo Hunter and his Jazz Band until 11.30.  
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—Physical Training and Health Exercises.  
7.30—Talk on Health and Hygiene.  
7.35—Physical Training and Health Exercises.  
7.45—Broadcasters' Special News Service.  
7.55—Special News from Rugby.  
7.56—Musical Programme from the Studio.  
8—G.P.O. Clock and Chimes. Broadcasters'

- Turf Expert will discuss the training operations and horses' form from Randwick.

- 8.15—G.P.O. Clock and close down.

## MORNING SESSION.

- 11—G.P.O. Clock and Chimes. Special news service from the "Daily Telegraph."  
11.10—Musical programmes from the Studio.  
11.25—Special news from the "Daily Telegraph."

- 11.45—Musical programme from the Studio.  
12—G.P.O. Clock and Chimes. Race results will be broadcast immediately after each race, by courtesy of "The Sun" Newspaper. Social notes and a talk on "Simple Cooking for Children," by Mrs. Jordan.

- 12.30—London Metal quotations.

- 12.35—Broadcasters' Information Service, including Mails, Shipping, Weather, Railroads.  
12.55—News from "Sun" Cable Edition.

## AFTERNOON SESSION.

- 1—G.P.O. Clock and Chimes. Music from the Studio.

- 1.10—Talk on Sporting and Athletic Fixtures for the day—Lacrosse, Hockey, Tennis, Rugby League all fixtures, Rugby Union all fixtures. Soccer, Australian Rules, Baseball, Racing, Trotting, Croquet, Bowls. During the afternoon sporting information will be broadcast by courtesy of "The Sun" Newspaper. Australian Jockey Club Spring Meeting at Randwick.

- 5.15—G.P.O. Clock. Close down.

## EARLY EVENING SESSION.

- 4—G.P.O. Clock and Chimes. Uncle George and the Kiddies.  
4.45—Pavilion Dinner Orchestra, under the direction of Mr. Cec. Morrison.  
7.15—Special Sporting Information, by courtesy of "The Sun," including football, Rugby League all fixtures, Rugby Union all fixtures, hockey, lacrosse.  
7.30—Special Country News from "The Sun."  
7.45—Close down.

## NIGHT SESSION.

- 4—G.P.O. Clock and Chimes. Emmore Theatre, Symphony Orchestra, under the direction of Mr. E. Watkins.  
8.30—Lectures from the Studio.  
8.50—Mr. Clem. Williams (baritone).  
8.57—Resume of following day's programme.  
9—G.P.O. Clock and Chimes.  
9.1—Weather Report and Forecast, by courtesy of Mr. C. J. Mares, Government Meteorologist.  
9.15—Announcements.  
9.35—Miss Heather Kinnaird, contralto.  
9.45—The Ahad Doo, steel guitars.  
9.52—Interval.  
9.57—Bringa will talk about the Aborigines.  
9.58—Mr. Clem. Williams.  
10.3—The Ahad Doo.  
10.3—Miss Heather Kinnaird.  
10.18—The Dungowan Modern Dance Band, under the direction of Mr. Merv Lyons, broadcast from the Dungowan, Manly. During intervals between dances, news reports by courtesy of "The Sun" will be broadcast.

- 12—G.P.O. Clock and Chimes; National Anthem.

## 3 LO

## MORNING SESSION.

- 9.0—First Session of the Contest—SLO Melbourne's Radio Voice Competition for chil-

**PHILCO**—“Have you got one yet?”—BATTERIES.

drone. Administrator, Mr. A. B. Lane.  
12.0 p.m.—Time Signal, British Official Wireless News from Rugby, Reuters and the Australian Press Association cables, "Argus" and "Herald" news services. Shipping intelligence.

12.46—Stock Exchange information. Weather forecast for Victoria, Tasmania, South Australia, and New South Wales. Ocean forecasts. River reports.

1-Time signal.  
1.1-The Result of the Hurdle Race, Flemington.  
1.2 Studio Orchestra.  
1.10—Gwen Barbara (contralto).  
1.17—Richie Clark, flute.  
1.24—Studio Orchestra.  
1.34—Gwen Barbara (contralto).  
1.41—Studio Orchestra.  
2—Result of Maribyrnong Trial, Flemington.  
2.30—Result of Stand Handicap, Flemington.  
2.46—Mr. Ted Collins will speak from the M.C.C. Ground, Football Final.

## AFTERNOON SESSION.

Musical Director: Reginald Bradley.  
2—M.G.O. Dance Orchestra.

3.10—Result of Maribyrnong Trial, Flemington.

3.11—Mr. Ted Collins will speak from the M.C.C. Ground, League Football Final.

3.15—M.G.O. Dance Orchestra.

3.40—Mr. Ted Collins will speak again from the M.C.C. Ground.

3.45—Result of the October Steeplechase, Flemington.

3.46—M.G.O. Dance Orchestra.

3.50—Mr. Ted Collins, from M.C.C. Ground.

3.55—M.G.O. Dance Orchestra.

4.20—Mr. Ted Collins, from M.C.C. Ground.

4.25—Result of the October Stakes, Flemington.

4.30—M.G.O. Dance Orchestra.

4.45—“Herald” News Service; Stock Exchange information.

4.50—Mr. Ted Collins, final scores from the M.C.C. Ground.

5—Result of the Paddock Handicap—Flemington.

Close Down.

## EVENING SESSION.

5.30—Spectating Results.

5.45—Children's Hour. Answers to letters and birthday greetings.

6—Pat McLean.

6.7—“Mary Gumbley” Poems.

6.17—Pat McLean.

6.24—“My Great Self” story for the littler ones; story for the bigger boys and girls.

6.40—“Argus” and “Herald” News Services; Sporting results. Reuters and Australian Press Association cables.

6.53—Weather synopsis. Shipping movements.

6.57—Stock Exchange information.

7.2—Fish Market Reports by J. R. Borrett Ltd.

7.4—River Reports.

7.6—Market Reports by Victorian Producers' Co-operative Co. Ltd.: Grains, shaft, has, straw, jute, dairy produce, potatoes and onions.

## NIGHT SESSION.

7.20—Mr. Frederick Chapman.

7.40—Mr. Hugh Egan, Draughts, “A Talk for Beginners.”

8—Mr. H. R. Weir, Hon. Gen. Sec. Victorian Amateur Athlete Assn., “Activities of Amateur Organisations.”

8.15—Musical Society Concert, transmitted from the Assembly Hall. During the interval, British Official Wireless news from Rugby, and Announcements will be transmitted.

10—Sporting results: Istan, Foothill, Metropolitan Soccer League; Metropolitan Amatour Lacrosse; Announcements.

10.10—Miss Hilton, entertainer.

10.27—“Argus” News Service; Meteorological information.

10.37—Miss Hilton, entertainer.

10.45—Le Garsick's Quartette will play dance music till

11.45—God Save the King.

## 3 AR

## MORNING SESSION.

11.36—The British Official Wireless Press received from Rugby Super Wireless Station, England, by 3AR's operator; the “Age” 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.

12.30—Amusement Selections, relayed from Hoyt's De Luxe, Bourke Street. Mr. T. L. Campbell at the Willotizer.

12.30—Stock Exchange News. Foreign Exchanges of the World. Supplied by Messrs. Thos. Cook and Sons.

12.40—Musical Selections.

12.55—Mall notices. Shipping movements.

1—Close down.

## AFTERNOON SESSION.

V.R.C. Meeting at Flemington.

1.30—Description of October Hurdle Race, 2m.

2.15—Result of Maribyrnong Trial Stakes, 4½f.

2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella Erlon.

2.45—Results of Stand Handicaps, 1½m.

3.15—Result of Maribyrnong Trial Stakes for 5f., 1½m.

3.45—Result of October Steeplechase, 2m, 1½f.

4—Time Signal Chime. 2nd Weather Forecast.

4.15—Result of October Stakes, 1m.

4.45—Result of Paddocks High Weight Hcp., 6f.

4.55—Evening Amusement Guide.

5—Time Signal Chime. Studio barometer Readings; Close Down.

## EARLY EVENING SESSION.

6.40—Children's Corner, by “Uncle Peter.”

## NIGHT SESSION.

8—Time Signal from G.P.O.; Studio Barometer and Out-door Thermometer Readings; The British Official Wireless Press; Sporting results; Local News.

8.15—Dance Night. The Rhythmic Dance Orchestra, relayed from the Maison De Luxe, Bourke Street, Melbourne, under the leadership of Mr. George Lewis.

9.30—Week-end Traveller's Information, supplied by the Victorian Railways Department and the Melbourne Tramways Board.

9.45—The Maison De Luxe Rhythmic Dance Orchestra.

10.45—Time Signal from G.P.O. Close down.

## 4 QG

## NO MIDDAY TRANSMISSION.

## AFTERNOON SESSION.

2.25—Time-in.

2.30—The complete service will be relayed from the Seventh Day Adventist Church, South Brisbane.

4.30—Close down.

## EARLY EVENING SESSION.

5.25—Time-in.

6.30—The Children's Session. Bedtime Stories by “Uncle Ben” and “Uncle Jim,” assisted by “Mabel Sunshine.”

7.15—Sporting News.

7.30—Close down.

## NIGHT SESSION.

7.45—A Sporting Talk.

8—The Silver Banquet, tendered to the members of the Simultaneous Parliamentary Delegation, will be relayed from Parliament House, Brisbane.

During the evening there will be speeches by prominent visiting Parliamentarians. A musical programme will be provided.

10—From the Studio. “The Daily Mail” news service. Close down.

## 5 CL

## MORNING SESSION.

10.30—G.P.O. Chimes.

10.31—Studio Orchestra.

11.15—Ward & Co.'s Stock Exchange Reports; Official Weather Synopsis, and station Announcements.

12—G.P.O. Chimes.

## AFTERNOON SESSION.

Relay from Cheltenham Racecourse; Running description of races by Mr. Arnold Treloar, From Studio; “A” Grade football results and interstate sportings.

## EVENING SESSION.

6.30—G.P.O. Chimes.

6.41—Badging 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.

8.30 Relay from Palais Royal, Paris, interspersed with news from London by Messrs Riley and Skinner, and Misses Wald and Sinclair.

10.15—Sporting Results.

10.30—Studio Concert, continued.

10.55—Station announcements.

11—G.P.O. Chimes. National Anthem, and close down.

## 7 ZL

## MORNING SESSION.

11—G.P.O. Clock Chimes. “The Mercury” news. Stock Market, Shipping, Commercial intelligence. Weather information and Sporting anticipations.

11.45—Selections on the Salomona Hobart Stock Exchange quotations.

12—G.P.O. Clock Chimes. Close down.

## EARLY EVENING SESSION.

7—Children's Corner, “Big Brother” chats to his Pals.

## 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.

8.16—“Come to Tasmania Movement,” by Mr. Maurice Sussman, “The Attractions of Tasmania.”

8.20—Palais de Dance Band, City Hall.

9.45—British Official Wireless news, copied direct from Rugby by our own operator. Weather synopsis. Station announcements. Close down.

**WANTED.**—All kinds secondhand Wireless Sets, Parts, Speakers, etc.

Best prices given. JACK RAPKEN, 16 George Street West. MA 1198.

**PHILCO—“For less worry**

**and better results”—**

**BATTERIES.**

**Sunday, Oct. 3****2 FC****MORNING SESSION.**

- 10.55—The Chimes of 2FC and Announcements.  
 11—Broadcast from St. Stephen's Presbyterian Church, Phillip Street, morning service. Rev. Hugh Paton, preacher.  
 12.15—from the Studio—News Session.  
 12.30—Close down.

**AFTERNOON SESSION.**

- 8—The Chimes of "Big Ben" and Announcements.  
 8.22—Broadcast from the Petersham Congregational Church, an organ and vocal recital, arranged by Mr. Christian Hellermann.  
 8.30—From the Studio: A talk by Mr. J. K. Powell on, "How right thinking changes life."  
 8.50—Close down.

**NIGHT SESSION.**

- 6—Chimes of "Big Ben" and announcements.  
 6.2—Mr. William Adams will talk on "Passion Hymns," illustrated by Mr. Ewart Chapman with organ solos.  
 6.25—A vocal programme, arranged by Bennett North.  
 7.15—The Bells of St. Marks.  
 7.25—Broadcast from St. Mark's Church of England, Darling Point, Evening Service.  
 8.30—Broadcast from the Grand Opera House, concert by the N.S.W. State Military Band.  
 10—National Anthem. Close down.

**2 BL****MORNING SESSION.**

- 11—Service broadcast from Presbyterian Church, Manly.

**AFTERNOON SESSION.**

- 3.30 From the Studio: Bible Class.  
 4—Organ Recital by Miss Alice Bryant, from Manly Presbyterian Church.

**EVENING SESSION.**

- 6.50—Service Broadcast from Emuote Church of Christ.  
 8.30—Concert from the Studio.  
 10—G.P.O. Clock and Chimes. National Anthem.

**2 GB****MORNING SESSION.**

- 10.20—Organ music from St. Albans, Redfern.  
 10.30—The morning service from St. Albans' Church, Redfern; High Celebration of the Holy Eucharist and Sermon.  
 12 noon—Close down.

**EVENING SESSION.**

- 6.45—Music from Studio and Announcements.  
 6.55—Music from Adyar Hall.  
 7—Lecture from Adyar Hall, by Professor Ernest Wood, entitled "The Simple Truths of Theosophy—Reincarnation, What It Means."  
 8—Announcements.  
 8.15—South Sydney Band: "O God Our Help in Ages Past," hymn; Grand Processional March from "La Reine de Saba" (Gounod); "Traumerei" (Schumann); "Minuet" (Boccherini).  
 8.35—Songs by Cecile Adkins: "Daybreak" (Mallison), "To My Garden" (Mallison).  
 8.45—South Sydney Band: "Zampa," overture; "Salome," march (Aelet); "Marguerite," grand concert waltz (Gounod).  
 9.10—Announcements.  
 9.15—Songs by Cecile Adkins: "The Trout" (Schubert); "Hark, the Lark" (Schubert).

**WIRELESS WEEKLY****3 LO****MORNING SESSION.**

- 10.40—Express Train Information.  
 11—Service from Toorak Presbyterian Church, Preacher, The Very Rev. James Crookston.  
 12.15—British Official Wireless News from

**AFTERNOON SESSION.**

- 2.30—The 1926 Masters Association Choral Service, transmitted from Theatre Royal, Bourke Street, Melbourne.  
 4.30—Close down.
- EARLY EVENING SESSION.
- 5.15—Children's Hour: Hymns by Billy Bunny and his Bear Babies.  
 6—Answers to letters and birthday greetings.  
 6.15—Another hymn by Billy Bunny and his friends.  
 6.25—Stories by Billy Bunny; "Mimosa" and "Loveless Life."  
 6.40—Close down.

**NIGHT SESSION.**

- 7—Service from St. Paul's Cathedral, Melbourne.  
 8.40—Collingwood Citizens Band.  
 8.45—Southern Choral Society.  
 9—Concert—Ziebell, violin.  
 9.15—Mr. J. Howlett Ross, "The Sinking of the Southern Cross."  
 9.20—Jack O'Hagan, baritone.  
 9.25—The Ladies of the Southern Choral Society.  
 9.30—Collingwood Citizens Band.  
 9.45—Southern Choral Society.  
 9.50—British Official Wireless News from London. Announcements: "Argus,"  
 9.52—Southern Choral Society and Collingwood Citizens' Band.  
 10—God Save the King.

**3 AR****MORNING SESSION.**

- 10.30—The Bells from St. James' Old Cathedral.  
 11—Service from the Collins Street Independent Church, Rev. Dr. J. D. Jones, M.A., D.D., of Bournemouth, England, preacher.

- AFTERNOON SESSION.
- 3—Mr. R. Gordonov, baritone.  
 3.15—Mr. Lal Kuring, cellist.  
 3.30—Mr. James A. Collenso, tenor.  
 3.37—Miss A. Pillar, soprano.  
 3.41—Mr. R. Gordonov, baritone.  
 3.44—Mr. Lal Kuring, soprano.  
 3.45—Mr. James A. Collenso, tenor.  
 4—Close down.

**EARLY EVENING SESSION.**

- 6.30—The Bells from St. James' Old Cathedral.  
 7—Service from the Collins Street Independent Church, Rev. Dr. J. D. Jones, M.A., D.D., of Bournemouth, England, preacher.  
 8.30—Studio Concert: Mr. Dudley Thorpe.  
 8.37—Mr. S. Cox, clarinet solo.  
 8.44—Mr. E. Brine, soprano.  
 8.51—Mr. J. Stanley, tenor.  
 8.58—Miss Bronnio Fairhall, soprano.  
 9.5—Mr. Edwin Cox, baritone.  
 9.12—Mrs. E. Brine, soprano.  
 9.20—Mr. S. Cox, clarinet solo.  
 9.27—Mr. James Stanley, tenor.  
 9.35—Miss Bronnio Fairhall, soprano.  
 9.40—Mr. Dudley Thorpe, baritone.  
 9.50—"Age" News Bulletin, exclusive to 3AR.  
 9.55—Close down.

**4 QG****MORNING SESSION.**

- 11—The complete morning service will be relayed from St. Andrew's Church of England, South Brisbane.

**AFTERNOON SESSION.**

- 3.10—Announcements.  
 3.15—The concert provided by the Metropolitan Band will be relayed from the Botanic Gardens.  
 4.30—Close down.

**NIGHT SESSION.**

- 7.20—Organ Music.  
 7.30—The complete evening service will be relayed from St. Andrew's Church of England, South Brisbane.  
 8.30—Band Concert.  
 9.30—Close down.

**5 CL****MORNING SESSION.**

- Relay from Rose Park Congregational Church—Divine Service.

**NIGHT SESSION.**

- 6.30—G.P.O. Chimes.  
 6.31—Bedtime Stories by Uncle Mike.  
 7—Relay from Maughan Church — Divine Service.  
 8.15 (approx.)—From Studio: Venetian Trio, interspersed with vocal items by Miss John Hughes and Mr. Ken Hughes.  
 9—G.P.O. Chimes.  
 9.1—Weather reports.  
 9.3—Studio Concert, continued.  
 10—G.P.O. Chimes. National Anthem.

**7 ZL****NIGHT SESSION.**

- 7—Divine Services, from St. David's Cathedral Macquarie Street, Hobart.  
 8.45—Concert from the Studio: Miss Amy Butterworth, pianist; Mr. Rolf Lyons, baritone; Mr. William P. Harwood, cellist; Mr. Joseph Blight, saw soloist.  
 9.45—The "Mercury" special interstate news service. Weather synopsis. Station announcements. National Anthem.

**Monday, Oct. 4****2 FC****MORNING SESSION.**

- 10—The Chimes of "Big Ben" and Announcements.

- 10.30—The 2FC Racing Commissioner on the day's racing at Randwick.  
 10.30—Late "Sydney Morning Herald" news service.  
 10.35—Music from the Studio.  
 10.35—Australian Press Association and Reuters' Cable Services.

**MIDDAY SESSION.**

- 11.30—The Chimes of 2FC and Announcements. A detailed description of the A.J.C. Spring Meeting from Randwick.  
 12.30—A complete résumé of the afternoon's sporting events. Musical items from the Studio.

- 5—Chimes of "Big Ben." Close down.

**EARLY EVENING SESSION.**

- 5.15—Chimes of 2FC and Announcements.  
 5.50—"Hello Man" talks to the children.  
 6.30—A talk to the Older Children.

6.45—Broadcast from the Hotel Australia, orchestral items. Miss A. J. Egan, director.  
7—News Service.

## NIGHT SESSION.

- 7.20—A full description of the A.J.C. Spring Meeting at Randwick. The Racing. The Crowds. The dressing of the 2FC Racing Staff.  
8—Clunes of "Big Ben," Broadcast from the Haymarket Theatre, Sydney.  
8.25—Dr. Watson Monroe will speak in connection with Health Week—"Human Capital."  
8.35—Miss Gwendolyn Fimister, soprano.  
8.40—Mr. Laurence Hulbert, baritone.  
8.45—Miss Kitty Elliott, comedienne.  
8.50—Miss Nellie Tosreau will give his radio poster drawing.  
9.5—Broadcast from the Haymarket Theatre, Sydney, vocal act.  
9.20—The 2FC Dance Band, Mr. Eric Pearce, conductor.  
9.25—Mr. Earl Wilson, baritone.  
9.30—From the Studio radio play, specially written for 2FC by Mr. James Donnelly, entitled "The Master of Taste," describing a humorous way of art twisting vainly seeking from each station the item he wants, and like the Blue Bird of Happiness, finds the item from his own home station. This play abounds in humorous situations, and will be musically illustrated by the following artists, who will take the various characters:—Mr. James Donnelly, host; Gwendolyn Fimister, Mr. Laurence Hulbert, entertainer and Mr. Earl Wilson, baritone.  
10.45—2FC's Dance Band, Mr. Eric Pearce, conductor.  
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 GB

## EVENING SESSION.

- 6.45—Talks to children, by "The Man from Dreamland."  
7.15—Interval.  
7.30—Music from Studio.  
7.45—Announcements.  
7.50—Song for violin and piano.  
8.2—Address by Rt. Rev. C. W. Leadbeater.  
8.15—String Quartette.  
8.30—Sonata by Madame Wieckle.  
8.37—Talk on Health, "Health Week."  
8.52—Songs by Mr. Bertie Phillips.  
9—Violin Solo, Lloyd Davies.  
9.8—Announcements.  
9.12—Address by Professor Ernest Wood.  
9.25—Songs by Madame Wieckle.  
9.37—Muriel Lane, cello solo.  
9.45—Mr. Bertie Phillips, song.  
9.54—God Save the King.

## 3 LO

## MIDDAY SESSION.

- 12—Time Signal, British Official Wireless News from Empire Broadcasts and the Australian Press Association Cables; "Argus" and "Herald" News Services; Shipping Intelligence.  
12.45—Shipping Intelligence. 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—Elsie Davies, soprano.  
1.17—C. Elsie Davies, flute.  
1.25—Studio Orchestra.  
1.32—Elsie Davies, soprano.  
1.40—Tasma Tisern, cello.  
1.47—Studio Orchestra.  
2—Rare Reenact, Fitzroy Ponies; Close down.

## AFTERNOON SESSION.

- 2—Studio Orchestra.  
3—Mrs. Dorothy Silk, Homecrafts: Leather Work.  
3.25—Franklin Stomah, clarinet.  
3.30—Studio Orchestra.  
3.37—Gwen Barham, contralto.  
3.44—Studio Orchestra.  
3.54—Miss Flora Pel, Supervisor of Domestic Arts Education Department: Domestic Economy.  
4.1—Reginald Bradley, violin.  
4.18—Gwen Barham, contralto.  
4.25—Walter Smith, cornet.  
4.32—Studio Orchestra.  
4.45—"Herald" News Service; Stock Exchange Information; Race Results, Fitzroy Ponies, with bets given as they come to hand.  
5—Children's Radio Voice Competition, Voice Trials.

## EARLY EVENING SESSION.

- 6.15—Children's Hour. Answers to letters and birthday greetings.  
6—Charles Pone, Komedy Kolorad Koon, will entertain.  
6.15—Little Miss Kookaburra will relate a short humorous story entitled, "The Broken Chimney Pot".  
6.17—Charles Pone will again entertain the children.  
6.25—Miss Kookaburra will now tell the 2th instalment of "The Girl who Played the Game".  
6.40—"Argus" and "Herald" News Services; Reuters and the Australian Press Association Cables.  
6.55—Weather synopses. Shipping movement. Overseas Shipping.  
7—Stock Exchange Information.  
7.2—Fish Market Reports, by J. R. Borrett Ltd.  
7.6—River reports. Aerial mail information by Australian Aerial Services.  
7.8—Markets—Reported by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sheep sales, poultry, grain, chaff, hay straw, butter, dairy produce, potatoes, and onions. Market prices of oranges and lemons, by the Victorian Central Citrus Association Pty. Ltd.

## NIGHT SESSION.

- 7.30—Under the auspices of the New Settlers' League, Mr. W. T. Lovett, "Achuron Valley."  
7.40—Under the auspices of the Department of Agriculture, Mr. J. T. Ramsay, Potato Expert, "Preparations for Planting Potatoes."  
8—Under the auspices of the Associated Amateur Sports Committee of Victoria, Mr. Crull, "Practical Athletics."  
8.15—Concert by the Werribee Central Society and Orchestra, transmitted from the Mechanics' Institute, Werribee.  
10.45—British Official Wireless News from Radio "3LO" Ararat. News Service; Weather Forecast; Announcements etc.; Competition results from Ballarat.  
11—Dance Music by the La Cossicci's Quartette.  
11.45—God Save the King.

## 3 AR

## MORNING SESSION.

- 11.30—The British Official Wireless Press, received from British 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 Hoy'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.

- Richmond Trotting Meeting. Results immediately after each race, and at half-hour intervals.  
2.30—Hoy's Premier Orchestra, under the direction of Miss Ella Brien.  
3.0—Melbourne Piano Trio.  
3.18—Miss Dulcie Carson, soprano.  
3.23—Mr. Robert Petter, violinist.  
3.30—Miss Dulcie Carson, soprano.  
3.37—Mr. Ron Grearley, cellist.  
3.44—Melbourne Piano Trio.  
4—Time Signal Chime; 2nd Weather Report; Hoy's Premier Orchestra.  
4.55—Evening Amusement Guide.  
5—Time Signal Chime. Studio Barometer Readings. Close down.

## EARLY EVENING SESSION.

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

## NIGHT SESSION.

- 7.50 Studio Barometer Readings; British Official Wireless Press.  
8—Time Signal Chime.  
8.2—Mr. Tom Reilly, baritone.  
8.3—Vocal Duet, Mr. Will Jealous (tenor), Miss Olive Davies (soprano).  
8.13—Leggett's Ballroom Orchestra, under the leadership of Mr. Harry Narrie.  
8.25—Mr. Anthony Lucas, pianist.  
8.33—Mr. Will Jealous, tenor.  
8.40—Leggett's Ballroom Orchestra.  
8.55—Miss Olive Davies, soprano.  
8.58—Tom Reilly, baritone.  
9.10—Leggett's Ballroom Orchestra.  
9.25—Mr. Will Jealous, tenor.  
9.32—Miss Olive Davies, soprano.  
9.39—Mr. Anthony Lucas, pianist.  
9.46—Vocal Duet; Mr. Will Jealous (tenor), Miss Olive Davies (soprano).  
9.51—Leggett's Ballroom Orchestra.  
10—Time signal chime from G.P.O. Studio barometer readings. "Age" news service, exclusive to 3AB.  
10.10—Leggett's Ballroom Orchestra.  
10.15—Time signal chime from G.P.O. Close down.

## 4 Q G

## MIDDAY SESSION.

- 12.55—Time-in.  
12.55—Time Signal.  
1—Market Reports supplied by the Council of Agriculture; Stock Exchange Information, supplied by the Committee of the Brisbane Stock Exchange; Weather Information supplied by the Commonwealth Weather Bureau; News Service supplied by "The Daily Mail"; News service supplied by "The Daily Standard".  
1.20—From the Hotel Carlton, lunch hour music by the Carlton Orchestra.  
2—Close down.

## AFTERNOON SESSION.

- 3.30—Programme of music by the Carlton Symphony Orchestra.  
4.15—News Service supplied by "The Telegraph."  
4.35—Close down.

## EARLY EVENING SESSION.

- 5.25—Time-in.  
5.30—The Children's Session—Stories by "The Sandman."  
7—The Farmers' Session. Market Reports supplied by the Council of Agriculture. Lecturer: Cheaperising the Cost of Pigs, by Mr. E. J. Shelton (Pig Instructor).

**BURGESS**—Constant satisfaction assured"

—BATTERIES.

7.30—From the Studio of 4QG: News service supplied by "The Daily Standard." Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange.  
7.45—Announcements.

## NIGHT SESSION.

7.45—Lecture Session: Lighthouses, Mr. W. Stevens (Chief Engineer, 4QG).  
8—Concert from the Studio.  
8.26—Weather information supplied by the Commonwealth Weather Bureau: Announcements.  
9.40—Radio Voices Contest: Irena.  
9.45—From the Crystal Palace: Fifteen minutes' dance music by the Crystal Palace Orchestra.  
10—From the Studio. "The Daily Mail" News Service. Close down.

## 5 CL

## MORNING SESSION.

11.30—G.P.O. Chimes.  
11.31—Featuring a Stock Dow Art Number.  
11.41—Advertiser News Service.  
11.45—Postal numbers.  
12—G.P.O. Chimes.  
12.1—"Advertiser" News Service and Cricket scores.  
12.15—Featuring a Stock Dow Art Number;  
12.30—6CL Studio Orchestra will be heard during the class 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 Studio—Serial Story.  
4—G.P.O. Chimes.  
4.1—Broadcast from "Arcadia" Cafe—Orchestral numbers.  
4.45—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, by "Auntie Peggy."  
7.30—Market Reports.  
7.49—Mr. W. W. Fredericksen will give his weekly motor talk.  
7.50—Mr. A. E. Dungey will talk on "Care of the Teeth."  
8—G.P.O. Chimes.  
8.1—Programme of dance music by Tom Swift's Palais Royal Orchestra, relayed from Palais Royal, interspersed with vocal items.  
8.20—"Twinklers" Boys' Club.  
8.40—Studio Concert, continued.  
9—G.P.O. Chimes.  
9.1—Weather reports.  
9.5—Studio concert, continued.  
10.10—"Australia" news service and ships within wireless range.  
10.30—Studio concert, continued.  
10.55—Station announcements.  
11—G.P.O. Chimes, National Anthem, and close down.

## 7 Z L

## MORNING SESSION.

11—G.P.O. Clock Chimes. "The Mercury" news, Stock Market, Shipping, Commercial intelligence. Weather information and Selections on the Satonola.  
12—G.P.O. Clock Chimes. Close down.

## AFTERNOON SESSION.

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

## EARLY EVENING SESSION.

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

## NIGHT SESSION.

3—G.P.O. Clock Chimes. "The Mercury" special Tasmanian news service. Railway auction produce sales. Weather information.  
3.5—Stock Exchange quotations.  
4—Talk by Mr. Decheinon, Principal of the Howard Technical College: subject, "Architects and Architects."  
8.30—Concert from the studio, under the direction of Miss Ruby Plesier.  
9.50—"The Mercury" special Interstate news service. Weather synopsis. Station announcements. National Anthem.



4.40—Miss Sybil Atholwood, mezzo.  
4.45—Stock Exchange, Third Call.  
4.45—Music from the Studio.  
5—Chimes of "Big Ben" and close down.

## EARLY EVENING SESSION.

5.45—The Chimes of 2PC and Announcements.  
5.50—"The Nelly Mar" talks to the children.  
6.30—A talk to the Older Children.  
6.45—Broadcast from the Hotel Australia, orchestral items.  
7.15—From the Studio: "Evening News" late news service, weather information.  
7.30—Dungey's Market Reports (wool, wheat, stock), fruit and vegetable markets.  
7.45—A talk by a member of the Wireless Institute of N.S.W.

## NIGHT SESSION.

7.50—The Chimes of 2PC and Announcements.

7.55—The Chimes of "Big Ben."  
8.2—Dr. Purdy will talk on "Extermination of Mosquitoes."

8.12—Broadcast from the Royal Naval House, items by the N.S.W. State Military Band.  
8.22—From the Studio: Miss Mabel Batchelor, soprano.

8.30—Broadcast from the Royal Naval House, band items.

8.50—From the Studio: Mr. Bryson Taylor, tenor.

8.55—Dr. T. J. Henry in his final travel talk.  
9.15—From the Studio: Miss Vera Warham, violin solo.

9.20—Band items.

9.25—Miss Mabel Batchelor, soprano.

9.40—Series No. 12 of the Radio Auction Bridge Session, in which four players left by Mr. W. F. H. Master, will play through a selection hand of Bridge. The complete play will be broadcast, and Mr. Master, who alone has the key to the perfect playing of this hand, will answer on the phone and broadcast simultaneously enquiries received from listeners concerning the game-played.

10—Mr. Bryson Taylor, tenor.

10.30—Miss Vera Warham, violin solo.  
10.45—Broadcast from the Wentworth Hotel, Sydney—Wentworth Cafe Dance Orchestra, under the baton of Mr. Sydney Simpson.

12—National Anthem. Close down.

## Tuesday, Oct. 5

## 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, astronomical observations, rainfall, temperature, nautical almanac, mail services.  
7.25—Investment market, mining share market, metal quotations.  
7.35—Wool sales, breadfruit markets, produce markets.  
7.45—"Sydney Morning Herald" news service.  
8—The Chimes of "Big Ben." A "Cheerie" 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.  
9.45—First minute morning information, by the 2FC Racing Commissioner.  
10—The Chimes of "Big Ben."  
10.15—Late "Sydney Morning Herald" news service.  
10.30—Music from the Studio.  
11—The Chimes of "Big Ben." Music from the Studio.  
11.5—Australian Press Association and Reporter's Cable Services.  
11.15—A Talk on Home Cooking 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.  
12.10—Music from the Studio.  
12.30—Marching Music for School Children.  
12.50—Radio Wireless News.  
1—Chimes of "Big Ben."  
1.30—"Evening News" midday news service, Producer's Distributing Society's Report.  
1.20—Music from the Studio.  
1.30—Stock Exchange, Second Call.  
1.35—Music from the Studio.  
2—The Chimes of "Big Ben." Close down.

## AFTERNOON SESSION.

2.30—Chimes of "Big Ben" and Announcements.  
2.35—A recital by the pupils of Hector Flemming.  
3.30—From Farmer's Tea Rooms: The Oak Hall Trio, Mr. Horace Keats, leader.  
3.40—Miss Nellie Judges, soprano.  
3.44—From Farmer's Tea Rooms: The Oak Hall Trio.  
3.55—Music from the Studio.  
4—Miss Sybil Atholwood, mezzo. The chimes of "Big Ben."  
4.5—From Farmer's Tea Rooms: The Oak Hall Trio.  
4.15—Music from the Studio.  
4.20—Miss Nellie Judges, soprano.  
4.25—The Oak Hall Trio.  
4.35—Music from the Studio.

## 3 LO

## MIDDAY SESSION.

12—Time Signal: British Official Wireless News from Rugby; Reuters and the Australian Press Association Cables; "Argus" and "Herald" News Services.  
12.5—Stock Exchange information.  
12.45—Second minute information. Weather forecasts for Victoria, Tasmania, South Australia and New South Wales. Ocean forecast. River reports.

1—Time Signal.  
1—Studio Orchestra.  
1.10—Charles Pope, Kolored Komedy Koon.  
1.17—Reginald Bradley, violin.  
1.25—Action Trio.  
1.30—Charles Pope, Kolored Komedy Koon.  
1.42—Agnes Fortune, piano.  
1.48—Studio Orchestra.  
2—Close down.

## AFTERNOON SESSION.

3—Studio Orchestra.  
3.10—Au Fair of Messrs. Buckley & Nunn Ltd., will give a Fashion Talk.  
3.25—Dr. Flynn, Organ Recital, transmitted.

**PHILCO—"Experience teaches"—BATTERIES.**

from St. Paul's Cathedral.  
 3.55—Studio Orchestra.  
 4.3—Margaret McGuire, soprano.  
 4.12—Matron Moreland, Infant Welfare.  
 4.22—Rozinard Bradley, violin.  
 4.39—Margaret McKeon, soprano.  
 4.37—Studio Orchestra.  
 4.45—Telegraph News Service; Stock Exchange Information.  
 5—Children's Radio Song Competition: Voice Trials.

## EARLY EVENING SESSION.

5.45—Children's Hour. Answers to letters and Birthdays Greetings.  
 6—Charlie Pope, Kilkenny Komedy Kons will sing to the Children.  
 6.7—Mary Gumbley, Poems: "The Fairy's Baby"; "Sand-between-the-toes"; Story for the littlest ones: "Ned the Fireman."  
 6.17—Charles Pope, will sing just one more.  
 6.24—Kilkenny Komedy and Poetry: "Olwyn's Secret"; Songs by the Wattle Girl.  
 6.40—Reuters and the Australian Press Association cables "Argus" and "Herald" News Services.  
 6.43—Weather synopsis. Aerial mail information by the Australian Airline Services Ltd.  
 6.48—Stock Exchange Information.  
 7.2—Fish Market Reports by J. R. Forrest Ltd.  
 7.4—River Reports.  
 7.6—Market Reports by the Victorian Producers Co-operative Co. Ltd.; Haymarket sales, poultry, grain, char, hay, straw, lime, dairy products, potatoes, and onions.

## NIGHT SESSION.

7.20—Under the auspices of the Royal Automobile Club of Victoria, Mr. Alfred Kelly, Vice President of the Club, will speak.  
 7.40—Under the auspices of the University Board, Dr. E. J. F. Lowe, M.A., D.Sc., P.R.E.A.S., Senior Lecturer, Natural Philosophy Department at the University, "The Destruction of Matter."  
 8—Dr. Loftus Hill, Popular Scientist.  
 8.1—University Choral Concert, Unscripted from the Assembly Hall.  
 10—Elsie Davies, soprano.  
 10.7—British Official Wireless News from Rugby: Results of South Street Competitions, Ballard; Announcements:  
 10.17—Jack O'Hagan, baritone.  
 10.18—Rozinard Bradley, violin.  
 10.22—"Argus" News Service; Announcements.  
 10.42—Elsie Davies, soprano.  
 10.50—Ham Johnson's Monte Carlo Orchestra.  
 11.46—God Save the King.

## 3 AR

## MORNING SESSION.

11.36—The British Official Wireless Press, received from Rugby Super wireless station, England, by S.A.C.'s operation. Express train information. "Argus" News Bulletin.  
 12—Time Signal from G.P.O.: Stories of the day; Studio Barometer Readings and Outdoor Thermometer Readings; 1st Weather Forecast.  
 12.55—Musical Selections relayed from Hoyt's de Luxe, Bourke Street, Mr. T. L. Campbell, host to the great artists.  
 12.56—Market Reports.  
 12.57—Stock Exchange News.  
 12.58—Musical Selections.  
 12.55—Mail Notices; Skipping Movements.  
 1—Close down.

## AFTERNOON SESSION.

2.30—Hoyt's Premier Orchestra, under the direction of Miss Ella'Brien.  
 2—Miss Shirley Hauberie, solo pianiste.  
 3.7—Mr. Will Hockley, baritone.  
 3.11—Miss Shirley Hauberie, pianiste.  
 3.22—Miss Wynne Daniel, soprano.  
 3.23—Miss Shirley Hauberie, pianiste.  
 3.36—Mr. Bill Hockley, baritone.  
 3.42—Miss Carmen Thaddeus, violinista.  
 3.53—Miss Wynne Daniel, soprano.  
 4.0—Time Signal Chime: 2nd Weather Forecast; 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 Peter.

## NIGHT SESSION.

7.45—The British Official Wireless Press; Studio Barometer Readings. Sheep and Cattle Report, supplied by Morris, John McNamara & Co., Ltd.

8—Time signal Chime from G.P.O.  
 8.2—Miss Beatrice Fleet, educationist.

8.10—Mrs. Crowle, contralto.

8.15—Mr. Potts, (Melbourne manager for Messrs. Balfour Beatty), will give a description of a trip to Java and Singapore on the motor vessel "Malabar" (2nd series).

8.30—Miss Rene Mason, contralto.

8.37—Master Eric Smith, violinista.

8.44—Fifteen minutes with verminate Vieille Giulio. A short story by Malcolm Butterfield (Piccini), introducing "One Fine Day." Humorous "Once life" Song: "A Night of Romance" (Horatio Nichols).  
 8.49—Miss Marion de Saxe, flautist.

8.55—Miss Marion de Saxe, flautist.  
 8.56—Mr. Athel Wilson will speak on "Amateur Athletics."

9.10—Miss Doris Mason, soprano.

9.26—Miss Beatrice Fleet (educationist), "Teaching a Girl to Swim: Making Sure."

9.33—Master Eric Smith, violinist.

9.40—Miss Doris and Rene Mason, vocal duet.

9.47—Mrs. Crowle, contralto.

9.53—Miss Marion de Saxe, flautist.

10.0—Time Signal from G.P.O.: Studio Barometer Readings: "Age" News Bulletin.

10.10—Leggett's Ballroom Orchestra, under leadership of Mr. H. Nangle.

11—Time Signal Chime. Close down.

## 4 QG

## MIDDAY SESSION.

12.55—Time-in Signal.

12.56—Time Signal.

1—Market Reports, Stock Exchange, Weather, "The Daily Mail" News, the "Daily Standard" News.

1.20—Fifth Hour Music by the Carlton Orchestra.

2—Close down.

## AFTERNOON SESSION.

3.20—A programme of music from the Studio.

4.15—The "Telegraph" News.

4.30—Close down.

## EARLY EVENING SESSION.

6.25—Time-in.

6.30—The Children's Session. Stories by "Uncle Bon" and "Uncle Jim."

7—From the Council of Agriculture Studio—The Farmers' Session. Market Reports, Lecturette: Liver Flute and its Allies, by Professor Goddard (University of Queensland).

7.30—"The Daily Standard" News. Stock Exchange information.

7.40—Announcements.

## NIGHT SESSION.

7.45—Lecture session. Photography, by Mr. F. L. Smith (Manager, Kodak Ltd.)

8—To-night's programme will take the form of a drawing-room entertainment and will be held in the lounge of the Hotel Carlton, Queen Street, Brisbane.

8.30—From the Studio: Weather information officially supplied by the Commonwealth Weather Bureau; Announcements.

8.31—Hotel Carlton concert, continued.

10—From the Studio: "The Daily Mail" news service. Close down.

## 5 CL

## MORNING SESSION.

11.30—G.P.O. Chimes.

11.31—Featuring a Stock Duo Number.

11.40—Advertiser News Service.

11.45—Station number.

12—G.P.O. Chimes.

12.1—"Advertiser" News Service and Cricket scores.

12.15—ECL Studio Orchestra will be heard in a series of classical numbers.

12.5—(approx.)—Ward & Co.'s Stock Exchange Intelligence; Weather Reports and Station Announcements.

2—G.P.O. Chimes.

## AFTERNOON SESSION.

3—G.P.O. Chimes.

4—Roly from "Maple Leaf" Cafe—Orchestra numbers.

4.45—The Studio—Serial Story.

4—G.P.O. Chimes.

4.45—Broadcast from "Arcadia" Cafe—Orchestra numbers.

4.50—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.

7.40—Milling talk by Mr. Jacknett.

8—Cedette Quartette, interspersed with vocal solos by Mrs. Stewart; Misses M. and Vida Harvey and Gerald Reilly.

8—G.P.O. Chimes.

9.1—Weather reports.

9.3—Studio concert, continued.

10.15—"Advertiser" News Service.

10.30—Studio concert, continued.

10.50—Station Announcements.

11—G.P.O. Chimes; National Anthem.

## 7 ZL

## MORNING SESSION.

11—G.P.O. Clock Chimes. "The Mercury" commercial intelligence. Weather information and Shipping. Saloon Selections.

12—G.P.O. Clock Chimes: Close down.

## AFTERNOON SESSION.

1—G.P.O. Clock Chimes. Musical items from the Studio.

5—Stock Exchange quotations.

5.30—Weather Information.

4—G.P.O. Clock Chimes. Close down.

## EARLY EVENING SESSION.

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

7.15—The adventures of George the Bookshelf cat, "Broadcasting in the Cat World," by "Aunt Stella."

## NIGHT SESSION.

8—G.P.O. Clock Chimes. "The Mercury" special Tasmania news service. Railway and shipping sailing. Weather information.

8.30—Stock Exchange quotations.

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

8.20—Musical items from the Studio—special request numbers.

8.50—"The Mercury" special Interstate news service. Weather synopsis. Station announcements. Close down.

National Anthem.

**PHILCO—“For less worry**

**and better results”—**

**BATTERIES.**

## Wednesday, Oct. 6

## 2 FC

## 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.  
 7.35-Wool sales, breadstuffs markets, produce markets.  
 7.40-"Sydney Morning Herald" news service.  
 8-The Chimes of "Big Ben" and Announcements, Cheorio Talk, by Mr. J. K. Powell.  
 9.15-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 Reuters' Cable Services.  
 11.15-Cooking Talk and Recipes by Miss Ruth Furst.  
 11.30-Close down.

## MIDDAY SESSION.

- 12-Nine Signals. The Chimes of 2FC and Announcements.  
 12.5-Stock Exchange, first call.  
 12.10-Music from the Studio.  
 12.30-Marching Music for School Children.  
 12.50-Bugle Wireless News.  
 1-The Chimes of "Big Ben." Weather information.  
 1.5-Evening News" midday news service; market reports.  
 1.20-Music from the Studio.  
 1.30-Stock Exchange, Second Call.  
 1.35-Music from the Studio.  
 2-The Chimes of "Big Ben." Close down.

## AFTERNOON SESSION.

- 2.30-The Chimes of 2FC and Announcements.  
 2.35-Broadcast from the Studio: A Recital on the Bechstein Player Piano.  
 2.45-Middle Reading.  
 2.50-From Farmer's Tea Rooms: The Oak Hall Trio (leader, Mr. Horace Keats).  
 2.40-Miss Margaret Grimshaw, mezzo.  
 2.45-From Farmer's Tea Rooms: The Oak Hall Trio.  
 2.55-Music from the Studio.  
 4-Miss Naomi Mercer, contralto.  
 4.5-The Oak Hall Trio: From Farmer's Tea Rooms.  
 4.20-Miss Margaret Grimshaw, mezzo.  
 4.25-The Oak Hall Trio.  
 4.30-Music from the Studio.  
 4.40-Miss Naomi Mercer, contralto.  
 4.45-Stock Exchange, Third Call.  
 4.46-Music from the Studio.  
 5-Chimes of "Big Ben." Close down.

## EARLY EVENING SESSION.

- 5.45-The Chimes of 2FC and Announcements.  
 5.50—"Hello Man" talk to the children.  
 5.50-A talk to the Older Children.  
 6.42-Broadcast from the Hotel Australia, orchestra items.  
 7.15-From the Studio: Late "Evening News" news service, weather information.  
 7.20-A full description of the A.J.C. Spring Meeting at Randwick. The Racing. The Crowds. The Dressing. By the 2FC Racing Staff.

## NIGHT SESSION.

- 7.55-The Chimes of 2FC and Announcements.  
 8-Broadcast from the Lyric Wintergarden Theatre Orchestra, under the baton of Mr. Alfie Moulton.  
 8.20-From the Studio: Dr. Harvey Sutton, Health Week, talk on "The Health of the Child."  
 8.30-Mr. Sydney Calland, baritone.  
 8.35-Miss Isa Turnbull, soprano.  
 8.45-Captain Frank Hurley, in a word pictures of some of his thrilling experiences during the exploration of New Guinea. This will be the third of the series, and as usual will be illustrated with musical and other effects.  
 9.30-Mr. Sydney Calland, baritone.  
 9.35-Miss Isa Turnbull, soprano.  
 9.45-Broadcast from the Lyric Theatre, orchestra items.  
 10.20-From the Studio: Glanders Maxim's Old Time Dance Orchestra will play some dance numbers until 11.30.  
 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 GB

## EVENING SESSION.

- 6.45-Talks to the Children, by "The Man from Dresdenn."  
 7.15-Interval.  
 7.30-Music from Studio.  
 7.48-Announcements.  
 7.55-Violin solos by Dan Scully.  
 8.15-Instrumental Trio—Monica Horder, Muriel Lang, Ada Brook.  
 8.25-Songs by Miss Nellie Ravens (conductor), from Studio of Robert L. Harper, Esq.  
 8.32-Talk on Health, "Health Week."  
 8.47-Address: "Ocean Piers," by Commander Bollstein.  
 8.52-Duetts for two violins and piano.  
 9-Results Richard's Home Entertainment Ballot.  
 9.5-Songs by Miss Nellie Ravens.  
 9.12-Dramatic reading.  
 9.30-Address by Professor Ernest Wood.  
 9.45-Violin solos, by Dan Scully.  
 9.55-God Save the King.

## 3 LO

## MIDDAY SESSION.

- 12 noon-Time Signals: Reuters and the Australian Press Association Cables; "Argus" and "Herald" News Services; Shipping Intelligence.  
 12.45-Stock Exchange information.  
 12.50-Meteorological information. Weather forecasts for Victoria, Tasmania, South Australia and New South Wales. Ocean forecast. River reports.  
 1-Time Signal.  
 1.15-Elsie Davies, soprano.  
 1.10-Lou Costello's Quartette.  
 1.30-Result of Craiginburn Hurdle Williamstown Races.  
 1.53-Elsie Davies, soprano.  
 2-Result of Maiden Hunters Steeple, Williamstown Races.

## AFTERNOON SESSION.

- 2.1—"Tell Me More," First Act, transmitted from His Majesty's Theatre, Exhibition St., Melbourne, by permission of J. C. Williamson Ltd.  
 3.30-Result of Beveridge Handicap, Williamstown Races; Result of Findon Hunt Cup Steeple, Williamstown Races.  
 3.35-Studio Orchestra.  
 3.45-Result of Yarraville Handicap, Williamstown Races.  
 3.46-Oscar Fortune, contralto.  
 3.52-Agnes Fortune, piano.  
 4-Station Trio.  
 4.10-Result of Doreen Corinthian, Williamstown Races.

## 4.11-Dorothy Roxburgh, viola.

4.17-Sister Peck, Mothercraft.

4.30-Gwen Barnham, contralto.

4.37-Studio Orchestra.

4.45—"Herald" News Service: Stock Exchange Information.

5-Children's Radio Song Competition: Voice Trials.

## EARLY EVENING SESSION.

- 5.45-Children's Hour: Answers to letters and Birthday Greetings.  
 6-A musical programme arranged by Mr. Fritz Hart.  
 6.40-Latest Cricket scores, by courtesy of Reuters Ltd. "Argus" and "Herald" news services. Reuters and the Australian Press Association cables.  
 6.53-World Syndicate: Shipping Movements; Overseas Shipping News.  
 7-Stock Exchange Information.  
 7.4-Fish Market Reports by J. R. Borrett Ltd.  
 7.6-River Reports.  
 7.8-Market Reports by the Victorian Producers' Co-operative Co. Ltd.; Haymarket Shows sales; poultry, grain, chaff, hay, straw, juice, 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. T. A. J. Smith, Tobacco Expert: Broom Fibre Growing.  
 7.40-Mr. P. W. Pearce, Physical Culture.  
 8-Hon. Theodore Fink, Sixty-six years in Victoria.  
 8.15-Duo-Art Recital, transmitted from the Assembly Hall, Collins Street, Melbourne.  
 8.24-Miss Margery Gray, violin solos.  
 8.36-Duo-Art.  
 8.46-Eddy Trewick, soprano.  
 8.51-John Waldrop (Duo-Art) and Lindsay Higgins (piano).  
 9-Captain Peters, Books, Wit and Otherwise.  
 9.15-Jack O'Hagan, assisted by Quantette.  
 9.20-British Official Wireless News from Rugby; Announcements, etc.; Results from Ballarat, South Street Competitions.  
 9.35—"Tell Me More," Second Act, transmitted from His Majesty's Theatre, by permission of J. C. Williamson Ltd.  
 10.50—"Athenaeum" News Service; Weather Forecast; Announcements.  
 11-Dance Music by Le Cossick's Quartette.  
 11.45-God Save the King.

## 3 AR

## MORNING SESSION.

- 11.30-British Official Wireless Press, received from Rugby Super Wireless Station, England, by S.A.R.E. operator, Express Train information. "Age News" Bulletin.  
 12-The Signal Chime from G.P.O. Studios Barometers 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. Campbell at the Wurlitzer.  
 12.30-Stock Exchange News; Market Reports 12.40-Musical selections.  
 12.55-Mail notices. Shipping movements.  
 1-Close down.

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## AFTERNOON SESSION.

- Findon Harriers' Meeting at Moonee Valley Racecourse. Results immediately after each race, and at half hourly intervals.  
 2.30—Hoyt's Premier Orchestra, under direction of Miss Edie Briar.  
 3. The Classic Trio, selected.  
 3.15—Miss Louise Stirling, mezzo.  
 3.20—Alfredo Clancy, violinist.  
 3.30—Miss Louise Stirling, mezzo.  
 3.37—Mr. Bryan Stafford, cello.  
 3.44—The Classic Trio.  
 4—Time Signal Chime from G.P.O. 2nd Weather Forecast. Hoyt's Premier Orchestra.  
 4.45—Evening Announcement Guide.  
 5—Time Signal Chime. Studio Barometer Readings. Close down.

## EARLY EVENING SESSION.

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

## NIGHT SESSION.

- 5.45—British Official Wireless Press; Studio Barometer Readings.  
 5—Time signal chime from G.P.O.  
 5.2—Miss Avila Moreton, solo violinist.  
 5.3—Miss Joan Thurlow, soprano.  
 5.16—The Unity Male Singers. Under direction of Mr. R. E. Youl.  
 5.22—Mr. Ray Hodge, baritone.  
 5.31—Mr. Edgar Mayne, the well-known cricketer, will talk about "Cricket."  
 5.45—Miss Cammie Barton, songs at the piano.  
 5.55—The Unity Male Singers.  
 6.1—Miss Bessie Bone, solo elocutionist.  
 6.3—Miss Jessie Thorburn, soprano.  
 6.15—Miss Avila Moreton, violinist.  
 6.22—The Unity Male Singers.  
 6.30—Miss Muriel A. Hegarty (Hon. Organiser of Labour Guild of Youth) will talk on "The Youth Movement in England."  
 6.45—Mr. Ray Hodge, baritone.  
 6.52—Miss Cammie Barton, songs at the piano.  
 6.55—Miss Bessie Bone, Humorous Entertainment, "Little Willie's Hearing."  
 10—Time Signal Chime from G.P.O.  
 Studio Barometer Readings. "Ags" news bulletin, exclusive to SAR.  
 10.45—Hoyt's Premier Orchestra.  
 10.46—Close down.

## 4 Q G

## MIDDAY SESSION.

- 12.45—Tune-in Signal.  
 12.55—Time Signal.  
 1—Market Report; Stock Exchange; Weather. "The Daily Mail" News; the "Daily Standard" News.  
 1.20—From Hotel Carlton, lunch hour music, by Carlton Orchestra.  
 2—Close down.

## AFTERNOON SESSION.

- 3.30—A musical programme.  
 4.15—"The Telegraph" News.  
 4.30—Close down.

## EARLY EVENING SESSION.

- 6.25—Tune-in.  
 6.30—The Children's Session; Stories by Little Miss Brisbane.  
 7—The Farmers' Session. Market Reports. Lecture on "How Sheep in Queensland, Suitable Breeds," by Mr. W. G. Brown, (Instructor in sheep and Wool).  
 7.30—"The Standard," news. Stock Exchange Information.  
 7.40—Announcements.

## NIGHT SESSION.

- 7.45—Lecture Session: The Divine Spark, Episode No. 1: The Story of the "Helen of Stirling," by Mr. J. W. Robinson.  
 8—Concert, including the Federal Band

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- 9.30—Weather Information officially supplied by the Commonwealth Weather Bureau. Announcements.
- 9.30—Studio Concert, continued.
- 10—"The Daily Mail" news service. 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—Vocation number.
- 12—G.P.O. Chimes.
- 12.15—"Advertiser" News Service and Cricket 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—Orchestra numbers.
- 3.45—From Studio—Serial Story.
- 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.
- 6.31—Bedtime stories.
- 7.30—"Boy Scouts" corner.
- 7.40—G.P.O. Chimes.
- 8.1—Relay from Palais Royal, Tom Swift's Palais Orchestra, interspersed with vocal items from Studio.
- 9—G.P.O. Chimes.
- 9.1—Weather reports.
- 9.3—Studio concert, continued.
- 10.15—"Advertiser" News Service.
- 10.30—Studio concert, continued.
- 10.45—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, Commercial intelligence, Weather Information, and Sporting Anticipations; Salomons Selections.
- 12—G.P.O. Chimes; Close down.

#### AFTERNOON SESSION.

- 2—G.P.O. Clock and Chimes; Musical Items from the studio; Story from the Illustrated Tasmanian Mail.
- 3.30— Hobart Stock Exchange quotations.
- 3.45—Weather information.
- 4—G.P.O. Clock Chimes. Close down.

#### EARLY EVENING SESSION.

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

#### EVENING SESSION.

- 8—G.P.O. Clock Chimes; "The Mercury" sports; Tasmania news service; Railway auction products results; Weather information and sporting results.
- 8.30— Hobart Stock Exchange quotations.
- 8.45—Physical Culture talk, by Mr. George Collins.
- 8.30—Concert from the Studio; Miss Jessie Ikin, mezzo-soprano; Miss Maureen Jones, contralto; Miss Ruby Plesse, pianist; Mr. Roy Sutcliffe, cornet; Mr. Mechan, cornet; Mr. B. Walstrom, tenor horn.
- 8.50—"The Mercury" special Interstate news service, Weather synopsis, Station announcements. National Anthem. Close down.

## Thursday, Oct. 7

2 F C

## EARLY MORNING SESSION.

- 7-The Chimes of "Big Ben" and Announcements.  
 7.5-Breakfast from the Studio.  
 7.15-Weather Information, Commercial News, Shipping Intelligence, and Markets. Rainfall, Temperatures, Astronomical Memoranda.  
 7.26-Investment Market, Mining Share Market, Metal Quotations.  
 7.35-Wool sales, broadcast at markets, produce news.  
 7.45-"Sydney Morning Herald" News Service. 8-Time signals. "A Cheerio" 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.  
 9.47-Last minute racing information, by the 2FC Racing Commissioner.  
 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-The Chimes of "Big Ben," Australian Press Association and Reuter's Cable Services.  
 11.10-Music from the Studio.  
 11.30-Close down.

## MIDDAY SESSION.

- 12-The Chimes of "Big Ben" and Announcements.  
 12.10-Stock Exchange, first call.  
 12.10-Music from the Studio.  
 12.30-Marching Music for the School Children.  
 12.50-Rugby Wireless News.  
 1-Chimes of "Big Ben" and announcements.  
 1.3—"Evening News" Midday News Service: Market Reports.  
 1.30-Music from the Studio.  
 1.30-Stock Exchange, Second call.  
 1.35-Racing Information by the 2FC Racing Commissioner.  
 2.10-Close down.

## AFTERNOON SESSION.

- 2.30-The Chimes of 2FC and Announcements.  
 3-Some new Recruits.  
 3-A recital by the pupils of Madame Ada Ebdon.  
 3.30-From Farmer's Tea Rooms: The Oak Hall Trio will play (Leader, Mr. Horace Keats).  
 3.40-Miss Bell Summons, soprano.  
 3.46-From Farmer's Tea Rooms: The Oak Hall Trio.  
 3.55-Music from the Studio.  
 4-Mr. Fred Harmon, baritone.  
 The Chimes of "Big Ben."  
 4.5-The Oak Hall Trio.  
 4.15-Music from the Studio.  
 4.20-Miss Bell Summons, soprano.  
 4.25-The Oak Hall Trio.  
 4.35-Music from the Studio.  
 4.40-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.  
 5.50—"The Hello Men" talks to the children, with a little help from "Jerry."  
 6.30-A talk to the Older Children.  
 6.45-Late "Evening News" news service, weather information.  
 7.20-Dulcetyl's Market Reports (wool, wheat, stock), fruit and vegetable markets.  
 7.30-Close down.

## NIGHT SESSION.

- 7.55-The Chimes of 2FC and Announcements.  
 8-Time signals. The Chimes of "Big Ben."  
 8.2-Hearseast from Hippodrome, speeches from the public meeting held under the auspices of the League of Nations, at which members of the British Empire Delegation will speak.  
 8.3-Chairman.  
 8.15-Marquis of Salisbury.  
 8.25-Arthur Henderson.  
 8.45-Representative Member of Canada.  
 9.20-From the Studio: Duet, Miss Mary McCormick, contralto, and Ambrose Bourke, bass.  
 9.35-Baritone solo by Mr. Ambrose Bourke, "Young Tom o' Dowen."  
 10.40-Mr. Jack Lumdsaine, songs at the piano.  
 9.55-Miss Mary McCormick and Mr. Ambrose Bourke, duet.  
 9.55-Miss Mary McCormick, contralto.  
 10-Recital by the London Symphony Orchestra under the baton of Mr. Emanuel Auersz.  
 10.30-From the Studio, Miss M. McCormick and Mr. A. Bourke, duet.  
 10.35-Miss Mary McCormick, contralto.  
 10.40-Mr. Jack Lumdsaine, songs at the piano.  
 10.50-Mr. Ambrose Bourke, bass.  
 10.55-Miss M. McCormick and Mr. Ambrose Bourke, duet.  
 11-The Wentworth Cafe Dance Orchestra, Mr. Sydney Simpson, conductor.  
 12-National Anthem. Close down.

## 3 L O

## MIDDAY SESSION.

- 12-British Official Wireless News from Rugby, Reuters and the Australian Press Association Offices: "Argus" and "Herald" News Services.  
 12.15-Community Singing, under the auspices of the Community Singers' and Concert 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.

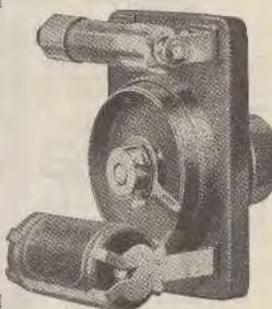
## AFTERNOON SESSION.

- 3-Studio Orchestra.  
 3.15-Mr. C. G. Cooper, The Plays of Shakespeare, "If You Like It, Part 2."  
 3.22-Kenneth Impett, baritone.  
 3.40-Reginald Bradley, violin.  
 3.47-Mary Gunlees, The Keats of the 19th Century (Rupert Brooke), with poetical illustrations.  
 4.2-Trio.  
 4.14-Kenneth Impett, baritone.  
 4.21-Walter Smith, concert.  
 4.30—"Herald" News Service, Stock Exchange Information.  
 5-Children's Radio Song Competition: Voice Trials.

## EARLY EVENING SESSION.

- 6-Children's Hour: Answers to letters and Birthday Greetings.  
 6.15-Charles Forn, Kolored Komedy Koon, will entertain the children.  
 6.22-Mary Gunlees, poems: The King's Breakfast; Halfway Down; Story for the littlest ones. Not the Fireman; for the bigger boys and girls: Olwyn's Secret.  
 6.45—"Argus" and "Herald" News Services: Reuters and the Australian Press Association cables.  
 6.55-Weather synopsia. Shipping movements. Aerial mail information, by the Australian Aerial Services Ltd.; Overseas Shipping News.  
 7-Stock Exchange Information.  
 7.4-Fish market reports by J. R. Borrett, Ltd.  
 7.6-River 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.

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### NIGHT SESSION.

- 7.20—Mr. W. McConnell.
- 7.40—Mr. H. Webb, Tasmanian Government Tourist Officer, Huon Port Arthur.
- 8—3LO Dance Orchestra.
- 8.10—Mr. E. M. Pascoe, five years Champion Bowler of Victoria, Bowling.
- 8.20—3LO Dance Orchestra.
- 8.30—Charles Pope, comedian.
- 8.54—Charles Pope, Kolored Komedy Koon.
- 9—3LO Dance Orchestra.
- 9.10—Mr. G. E. Emery, General Manager, State Savings Bank; "The State Savings Bank 'Own Home' Policy."
- 9.25—3LO Dance Orchestra.
- 9.35—Jack O'Hagan, baritone, accompanied by 3LO Dance Orchestra.
- 9.40—3LO Dance Orchestra.
- 9.50—British Official Wireless News from Rugby Announcements.
- 10—3LO Dance Orchestra.
- 10.10—Elsie Davies, soprano.
- 10.17—3LO Dance Orchestra.
- 10.27—Charles Pope, comedian.
- 10.34—3LO Dance Orchestra.
- 10.44—"Argus" News Service; Meteorological Information; Results of South Street Competition, Balfour.
- 10.51—3LO Dance Orchestra.
- 11—3LO Dance Orchestra.
- 11.45—God Save the King.

### 3 A R

#### MORNING SESSION.

- 11.30—The 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 readings and outdoor thermometer readings. First weather forecast. Events of the day.
- 12.3—Musical selections, relayed from Hoyt's de-Luxe, Bourke Street. Mr. T. L. Campbell at the Wurlitzer.
- 12.30—Stock Exchange news.
- 12.40—Musical selections.
- 12.55—Mall notices. Shipping movements.
- 1—Close down.

#### AFTERNOON SESSION.

- 2.30—Hoyt's Premier Orchestra, under direction of Miss Ellis Briles.
- 3.0—The Eric Trio, Miss Elsie Holdsworth (pianist), Mr. T. Bexley (violinist), Mr. James Maxwell (tautist).
- 4—Time Signal Chime. Hoyt's Premier Orchestra; 2nd Weather Forecast.
- 4.55—Evening Announcement Guide.
- 5—Time Signal Chime from G.P.O. Studio barometer readings; Close Down.

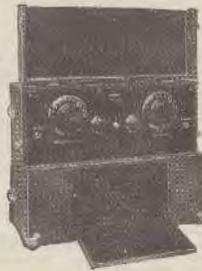
#### EARLY EVENING SESSION.

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

#### NIGHT SESSION.

- 7.45—The British Official Wireless Press. Special Pig and Calf Report, supplied by Messrs. McPhail, Anderson, Fat Sheep and Cattle Report, supplied by Messrs. J. McNamara & Co. Studio Barometer Readings.
- 8.2—Miss Alice Boyd, soprano.
- 8.9—Mr. David Shaw, pianist.
- 8.16—Miss Ruth Burdett, contralto.
- 8.23—Captain Delmont, V.D., will talk on "Stamps."
- 8.37—Miss Maude Bransell, pianiste.
- 8.44—Mr. Tom Fraser, tenor.
- 8.51—Miss Belle Gilchrist, mezzo soprano.
- 8.58—Miss Alice Boyd, soprano.
- 9.6—Mr. Rupert Wood, Secretary Fund Education Society of Victoria.
- 9.26—Miss Ruth Burdett, contralto.
- 9.33—Mr. David Shaw, pianist.
- 9.40—Mr. Tom Fraser, tenor.
- 9.47—Miss Belle Gilchrist, mezzo.
- 9.54—Miss Maude Bransell, pianiste.
- 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.

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**4 Q G**

## MIDDAY SESSION.

- 12.55—Tune-in Signal.  
 12.58—Time Signal.  
 1—Market Reports; Weather Information;  
     "Daily Mail" News; the "Daily Standard" News.  
 1.20—From the Hotel Carlton, lunch hour  
     music by the Carlton Orchestra.  
 2—Close down.

## AFTERNOON SESSION.

- 3.30—A programme of music from the Studio.  
 4.30—Close down.

## EARLY EVENING SESSION.

- 5.25—Tune-in.  
 6.30—The Children's Session; Stories by "The Standard".  
 7—The Farmers' Session; Market Reports;  
     Lectures: Talk on Live-Stock Feeding,  
     No. 4, Mr. J. K. Murray (Principal Agricul-  
     tural High School and College).  
 7.30—The "Daily Standard" news. Stock  
     Exchange information.  
 7.40—Announcements.

## NIGHT SESSION.

- 7.45—Lecture Session: A talk on Books, by  
 Mr. W. A. Braiden (McLeod's Book Store).  
 8—A programme from the studio interspersed  
     with items by the 4QG Concert Orchestra.  
 8.30—Radio Voice Contest Items.  
 8.30—Weather information officially supplied  
     by the Commonwealth Weather Bureau. An-  
     nouncements.  
 9.30—Studio Concert, continued.  
 10—From the Studio. "The Daily Mail"  
     News Service. Close down.

**5 C L**

## MORNING SESSION.

- 11.30—G.P.O. Chimes.  
 11.51—Featuring a Steel Duo Art Number.  
 11.48—"Advertiser" News Service.  
 11.55—Telephone number.  
 12—G.P.O. Chimes.  
 12.15—"Advertiser" News Service and Cricket  
     scores.  
 12.15—Featuring a Steel Duo Art Number;  
 12.30—5CL Studio Orchestra will be heard  
     in a series of classical numbers.  
 1.00—From Ward & Co.'s Stock Exchange  
     Intelligence; Weather Reports and Station  
     Announcements.  
 2—G.P.O. Chimes.

## AFTERNOON SESSION.

- 3—G.P.O. Chimes.  
 3.15—Bedtime from "Maple Leaf" Cafe—Orches-  
     tral numbers.  
 3.46—From Studio—Steel Story.  
 4—G.P.O. Chimes.  
 4.1—Broadcast from "Arcadia" Cafe—Orches-  
     tral numbers.  
 4.55—Stock Exchange Reports, General In-  
     formation, 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.  
 7.15—Health talk, arranged by Mr. Whitten-  
     bury.  
 7.30—Market reports.  
 7.45—Poultry talk, arranged by Mr. Whitten-  
     bury.  
 8—G.P.O. Chimes.  
 8.1—The Studio Orchestra in a programme  
     of classical numbers. Interspersed with  
     vocal items by Messrs. Shapford, Hughes,  
     and Misses Watson and Miller.  
 8—G.P.O. Chimes.  
 8.1—Weather reports.  
 8.23—Studio concert, continued.  
 10.15—"Advertiser" News Service.  
 10.30—Studio Concert, continued.  
 10.55—Station Announcements.  
 11—G.P.O. Chimes. National Anthems, and  
     close down.

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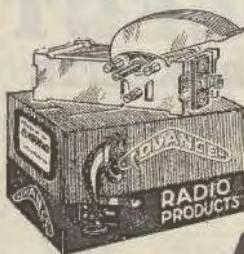
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**DILECTO : The Panel for Better Built Sets**

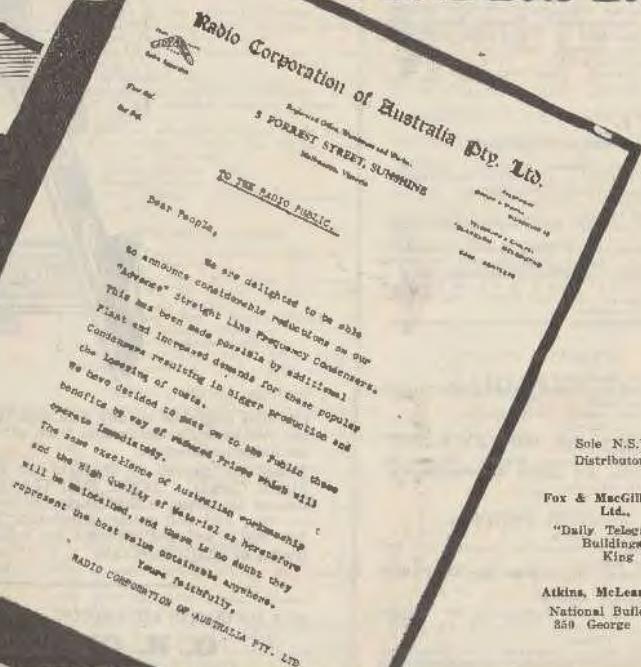
# Announcement



## Straight Line Frequency CONDENSER

### NEW PRICES

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- 00035 ~ 10'-
- 0005 ~ 10'6



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# PHILIPS VALVES



Years of patient research and the enormous resources of the famous PHILIPS LAMP WORKS have combined to produce radio valves of unrivalled quality. The following series are specially recommended for Australasian broadcast reception,

**A.109—“The One-Dry-Cell Valve.” Price 13/6**  
Filament, 1.0-1.3 volts. 0.06 amp. Plate voltage, 20/100

A.109 consumes less current than any valve yet introduced and makes it possible to operate a set for many weeks with a single dry cell. It is the ideal valve for portable work.

**B.406—“The New Wonder Valve.” Price 13/6**  
Filament, 3½ to 4 volts. 0.1 amp. Plate voltage, 20/120.

Truly a “Wonder” Valve, gives all the volume and range of the 201A types with the remarkably low filament consumption of only 0.1 amp. Can be used with a 4-volt accumulator or 3 dry cells in series.

Obtainable at all radio dealers, with English or American, as well as the new American Cap.

When you order a receiving set, specify that it must be fitted with Philips Valves.

*Let your next valve be a*  
**PHILIPS**

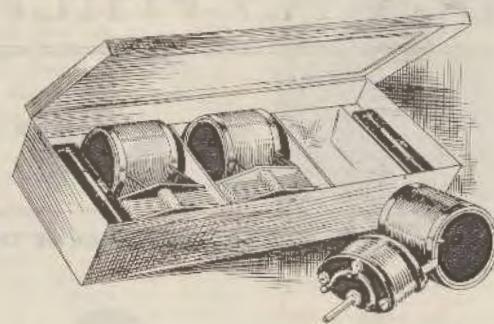
**Browning-Drake Receiver**

(Continued from Page 19.)

even be advisable to use a good quality variable grid leak, such as the Brudle-leak, and adjust this to its best setting. Play about with the receiver for half an hour or so, noting the different effects, and then proceed with your neutralization.

This process must not be approached with diffidence. There is really nothing very difficult in neutralizing as long as you have wired up according to the diagram. While tuned in to the local station, lift out your radio frequency valve (the first one) and insert underneath ONE of the filament legs of your valve a small piece of paper, so that when the valve is reinserted the filament does not light. Re-tune the set slightly, and you will again hear the station you have been listening to, certainly not quite so loud as heretofore. Re-tune the station again to its loudest point, and then adjust the neutralizing condenser until the signal strength is not affected by condenser C1. Now lift out your first valve, removing the small piece of paper, and reinsert the valve. To test out this neutralization turn the tickler coil to a position where a "pluck" will be heard, when you place your moistened finger tip on the fixed plates of condenser C2. Adjust your tickler until this "pluck" disappears, and then balance up with condenser C1. If you have properly neutralized the set, no "plucking" whatever should be heard at any setting of condenser C1. Should, of course, a slight "pluck" be heard, make a small final adjustment to the neutralizing condenser until it disappears.

When the set is properly balanced, the Interstate stations as well as the local stations should just slide in one after the other, and you will most assuredly be surprised at the remarkable clarity and most excellent volume which this receiver produces. Many Americans claim the Browning-Drake is comparable only to the Super-Heterodyne, but, of course, we all know what our Yankee friends are like. Suffice it to say, however, that the Browning-Drake receiver takes quite a lot of beating, and now that Station 2FC is on the low wave band this will be found a most excellent receiver for not only the city but also the country.



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## To Trap those Interfering Waves

**T**HIS wave trap described in this article will find many friends amongst the listeners-in who are experiencing the lack of selectivity in their receivers. Read about it.

There is nothing more annoying than to entertain a desire to hear Interstate stations, and to find that your receiver is not sufficiently selective to eliminate the local station and yield the particular station desired. How often have you heard both 2BL and 3LO at the one and the same time? How often during 2BL's interval have you been thoroughly enjoying Melbourne's programme when 2BL has re-opened only to drown 3LO? Annoying is a mild term, isn't it?

Cause and effect govern most things in this life. In this instance, the effect we know; so let's look at the cause.

Broadcasters (2BL) can't be blamed. They are exerting their utmost to entertain not only you, but many thousands of people way outback. Such is their mission in life. Perhaps you may blame the authorities for granting wavelengths too close

together. Maybe so, but suppose we try to help ourselves. Why not make our receivers more selective? It can be done. Listen, here's one way! Build this wave trap.

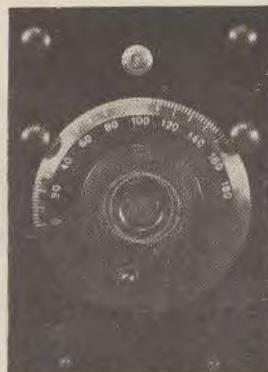
Look at the illustrations first. There's nothing in it, is there?

Here are the parts required:

- 1 Panel, 7" x 5" x 1/8".
- 1 .0005 mfd. variable condenser.
- 1 Battery switch.
- 4 Terminals.
- 1 Coil.
- 1 Baseboard, 7" x 4" x 1".
- 2 Busbars and 3 screws.

Suppose we start with the coil—a very simple thing to wind. Procure an ordinary cardboard former, 6" long by 3½" in diameter. Also obtain 8 ozs. of No. 18 D.C.C. wire—you'll have some left over after you wind this coil. Got both? Right; We'll start.

At a distance of ¾" from one end of the cardboard former, pierce three holes round the edge, ¾" apart. Thread the end of the wire in and out and in and out of these holes to hold it securely. Wind on 80 turns of the wire, taking a tap at the 35th turn



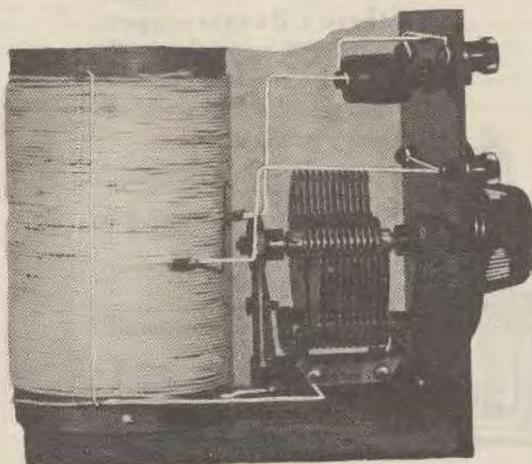
Panel View of Wave Trap

and one at the 45th turn, finishing off in a manner similar to the start. Look at the picture. There was nothing hard in that.

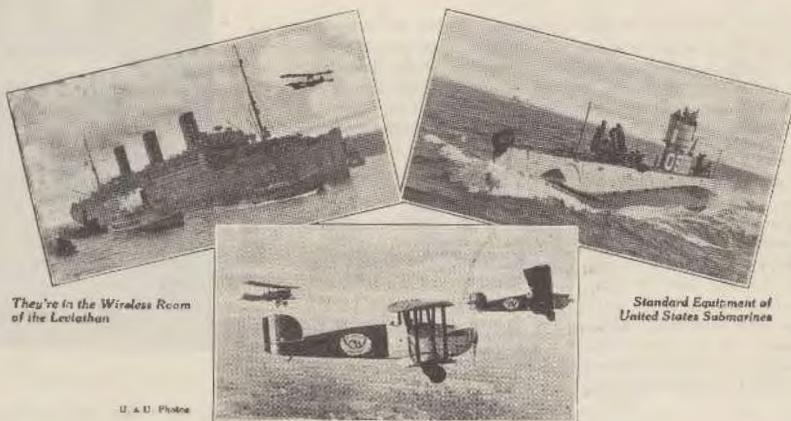
The next operation is equally simple. It consists of drilling the panel. This time, look at the front view. You can lay out your panel like that, surely. Let's see you do it.

Mark it off first—don't forget your centre punch, now! The condenser just about the middle—yes, that's right. Use your template. Good! Now your battery switch—just above the condenser. Allow sufficient clearance for the moving plates of the condenser. Next your four terminal holes, and, lastly, the two holes at the bottom for your screws, which go into your baseboard. All drilled? Right oh! Mount the switch, terminals and condenser. Screw them tightly now. Splendid!

We can do a bit of the wiring now, can't we? Yes! All right, get your pliers and busbar. Make a small loop about 3/16ths of an inch in diameter, and measure the distance between the top terminal on the left-hand side. Make allowance in the busbar for the small loop on the right-hand side, cut your busbar and make this loop. Fasten this wire between these terminals (A to A1). Repeat this operation with E and E1, and then connect one side of the switch to the wire which you first put on, that is



Side view, showing Coil Tappings.

*The World's Flyers Carried Burgess*

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between A and A1. Solder this connection. Just a little bit of flux, now—iron tinned and hot? Wipe it, and run a little solder in. Quite easy, too.

Your baseboard, now—where did you leave it? Ah! there it is over there beside the screwdriver. Use this screwdriver and the two screws and screw the panel to the baseboard. Don't force too hard, or you'll split the timber. That's done now.

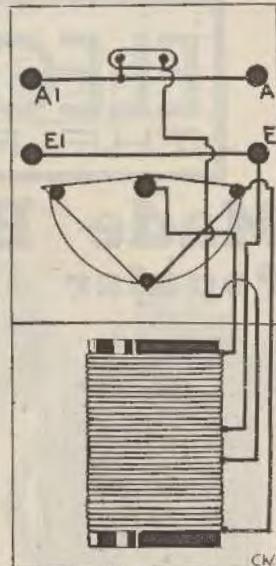
Next place the coil you wound a few moments ago on the baseboard at the back of the condenser. To hold it securely in place cut a strip of timber, say, an inch and a half wide, and three and a half inches long by half an inch thick. Shape the edges in such a way that the coil just fits snugly over this strip. That sharp penknife is just the thing for the job. Screw this strip to the baseboard, and fit the coil over it nicely. Another screw inserted through the cardboard into this new strip will just hold the coil in position.

A little more wiring, now, and we will soon be finished. Let's keep this back of panel wiring diagram beside us as we go along. That short wire going from the bottom of the coil to the moving plate of the condenser, just about an inch long—connect it. Good! Now the top of the coil has to be connected with the moving plate of the condenser. About a foot of busbar will do this nicely. Two more wires only, one from E to the bottom tap of the coil and one from

the remaining side of the switch to the top tap of the coil. We are finished now. Looks all right, doesn't it? Now to use it.

Let's go over to the set and connect this up. Everything in the set right? Valves all right? Lit up? "B" battery O.K.? Oh, you've got the station, have you? Good oh! Let's hear it. Try for Melbourne. Yes, that's them, all right, but, of course, there is 2BL also. Right! Now the wave trap. Take your aerial wire and your earth wire off the set, and connect to A and E terminals of the wave trap, respectively. Now run a wire from A1 of the wave trap to the aerial terminal of the set, and another from E1 of the wave trap to the earth terminal of the set. Yes, you've done that quite correctly.

We'll place the switch in the off position, so that no direct connection is made from the trap to the receiver, that is, the trap is not in the circuit. Tune the set now, and bring in Melbourne as you had it before. Of course, there's Broadcasters, still, we know, but never mind them. Get Melbourne as loudly as you can. Got them? Right! Close the battery switch on the trap. What! Nothing there now? Right oh! Don't be impatient, now. Slowly, mark you, slowly, turn the dial of the variable condenser in the wave trap and in will come Melbourne, but no Broadcasters. Have you got them yet? Yes, they're coming—but move that



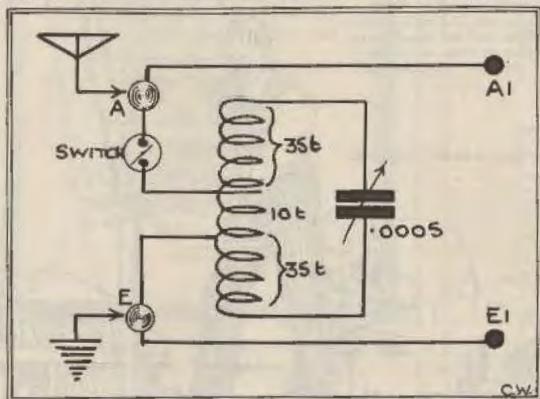
Wiring Diagram

dial very slowly, or you may miss them altogether. Up to their full pitch? Very sharp and selective, isn't it? But, oh boy, isn't it good?

Now, just you get used to this for a while, and you'll find it a most wonderful convenience. You notice that it doesn't interfere with the tuning on your receiver.

There's another method of using this wave trap, if you wish. This time you connect your aerial to the A terminal of the wave trap and the E terminal of the wave trap to the aerial terminal of your receiver. The earth terminal of your receiver going to earth as usual. This method, of course, is quite effective, but it will interfere to a certain extent with the setting on the dials of your receiver. Try it out!

Of course, we both know that a certain small amount of signal strength will be lost when we use this wave trap, but I am sure we would rather lose it, and in many cases, can afford to lose it, providing we separate one station from the other. It's worth it, isn't it? Do you like it now? Of course, you do!

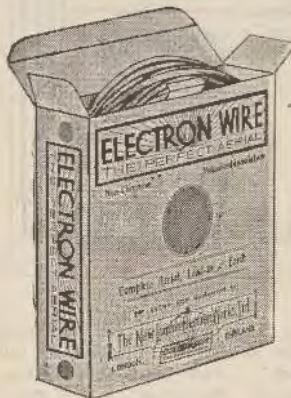


The Circuit of the Wave Trap

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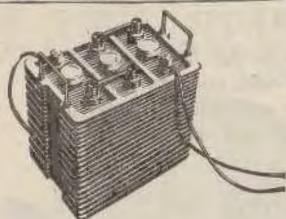
### IT'S SO EASY TO FIX, TOO!!

You can simply fling it over a tree, over the roof, round a chimney, run it along the fence, around the picture rail, across the room, hang it out of the window, or where and how you like, and the results are there. Connect one end to your set, let the other be free, use a short piece as an earth and — there you are. Perfect reception and immediate satisfaction.

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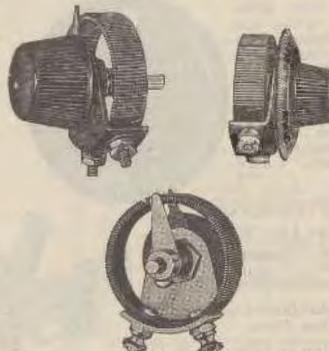
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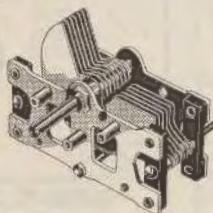
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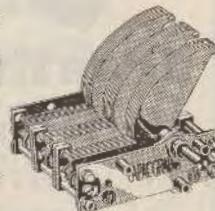
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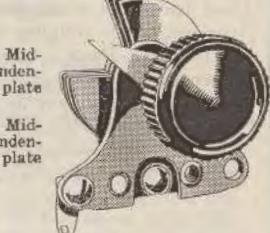


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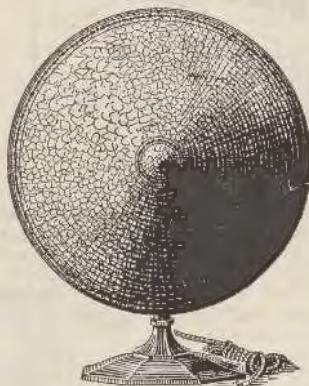
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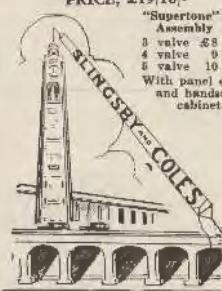
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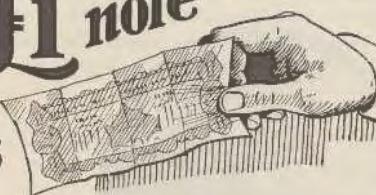
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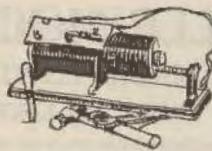
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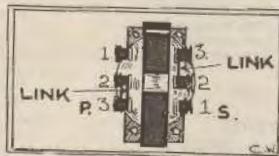
# Beginners' Problems



A. C. McC. (Yanco):

Q.: I am getting splendid results with the W.W. Reflex, but later on in the evening I find that the speech and music fades and becomes distorted. When opening up each evening, the results are very pleasing. Please tell me why this is so?

A.: It appears that your A or B batteries peter out at the end of the evening. Test them.



D. H. C. (Broadmeadow):—

Q.: Please give me a diagram showing primary and secondary of a R.C.A.U.V. 1714 transformer?

A.: Diagram herewith. The secondary has considerable printing on it.

H. P. (Kembla Heights): Build the Browning-Drake receiver.

G.N. (Leichhardt):

Q.: Please tell me why I am unable to receive Interstate reception on the W.W. 2-valve reflex receiver? My carbon-drum detector does not function.

A.: You can't expect maximum efficiency in any receiver if one of your most important components does not function. Replace the crystal detector. Your C battery connection is quite all right.

W. J. M. (Gore Hill):

Q.: I have a crystodyne receiver. Will you please tell me, in view of 2FC lowering their wave length, just what size of separate coil will be required for this station?

A.: The short wave coil will cover the new wave length, thus eliminating any necessity for a new coil.

Q.: Will separate contact studs and a switch be as satisfactory as the "Ecs.?"

A.: No; by no means, and wind your coil on the wooden frame.

L. A. (Grafton):

Q.: I am thinking of converting my three-valve receiver into the two-valve W.W. reflex. Please give me particulars of adding another valve, as I wish to utilize the whole of my present apparatus. Also show me how to use a potentiometer and a Bradley leak?

A.: It is not practicable or advisable to add another valve. Keep your spare parts, including potentiometer and Bradley leak on the one side. You'll find a use for them sooner or later.

E. C. R. (Bangalow):

Q.: Will you kindly give me particulars of a transformer, the output of which has to be 70 volts 60 amps., the primary to be suitable for 415 volts, 50 cycle?

A.: We are afraid the transformer you are enquiring about is too big for amateur use, being approximately 4 kilowatts. Write to us again, telling us what purpose you propose putting this transformer to, and we will advise you further.

H. C. (Oatley):

Q.: I would like to find out the

most suitable wire for a loop?

A. 1: Mars' aerial wire.

Q.: 2: I don't use an earth wire on my receiver, preferring a counterpoise, to which I earth my aerial when not in use. Is this wise?

Q. 2: Use the counterpoise by all means, but don't earth your aerial to it. Run a special earth wire and switch your aerial to it when not in use.

G. A. (Hurstville): We can't advise you on this.

G. G. B. (Newcastle): The circuit is quite all right, but a modulation transformer is necessary. Obtain a Cardwell transmitting condenser. Interview your local dealer.

F. G. (Roxelle):

Q.: I find my receiver is not sufficiently selective for Interstate reception. Please recommend a more selective circuit.

A.: There will shortly appear in these columns several ultra selective receivers. In the meantime, run up the wave trap in this issue. Keep persevering—your materials are O.K.

C. W. G. (Brisbane):

Q.: I have a variometer tuned crystal set, followed by a one-valve amplifier. Should I be able to receive Interstate stations on this, or must a stage of radio be added?

A.: You would be well advised to build a good selective two-valve receiver (one will appear shortly), as your present arrangement is not suitable for Interstate work, nor would a stage of radio be of much use. Wait a little while.

S.J.H. (Leichhardt) deals with the W.W. reflex:

Q. 1: A very loud hum is heard during reception.

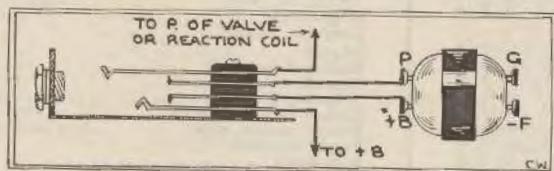
A. 1: This may be caused by your proximity to a transformer station or high-tension mains. Change the position of your aerial.

Q. 2: I am experiencing a howl.

A. 2: This is caused by coupling the tuned plate coil too closely. Reduce coupling and also plate voltage on first valve.

A.E.S. (Auburn).—Q.: Please show me how to cut out one valve, using a D.C. Jack?

A.: Study this diagram.

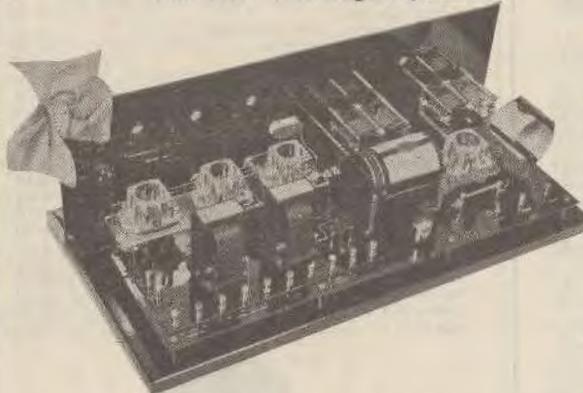




# Here is Double Proof of Radiokes superiority

In the recent N.S.W. Radio Exhibition, this Receiver, which won the laurels for sensitivity and selectivity, was a **BROWNING-DRAKE**, built with the **NEW RADIOKES T.R.F.** Components.

## The Prize-Winning Set, N.S.W.



Now we have received word from Brisbane to the effect that in the Queensland Radio Exhibition, the prize-winning set there was also equipped with the New Radiokes, T.R.F. Coil Kit, for use in the Browning-Drake Circuit. The award was granted for sensitivity, selectivity, and tone quality. Read the victor's letter:

Edgar V. Hudson,  
Charlotte Street,  
Brisbane.

Dear Sir,—

I am pleased to inform you that my four-valve Browning-Drake Receiver was successful in gaining First Prize in the Multi-Valve Set section at the recent Radio and Electrical Exhibition.

I feel sure that my choice of the Radiokes Browning-Drake Kit, Ferranti Transformers, and Service Condensers, contributed greatly to this success.

Under test, using Muliard Valves, the results came up to my expectations, I consider it to be one of the best circuits I have assembled, and the components mentioned have my full recommendation.

I remain, yours truly  
HUBERT KINGTON.

New Sandgate Road,  
Toombul,  
August 23rd, 1926.

## READ MR. WATSON'S LETTER

17 Empire Street,  
Haberfield,  
17th May, 1926.

Dear Sirs,—

It may be of some interest to you to know that my receiver, which won first prize in the recent Radio Exhibition on the score of selectivity and sensitivity, amongst other points, was equipped with RADIOKES Precision Coils for the Browning-Drake Circuit.

These coils were used just as purchased, and the results obtained have certainly justified my selection.

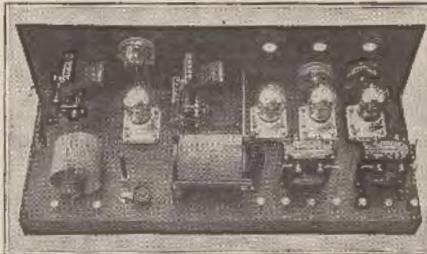
Wishing you every success,

Yours faithfully,

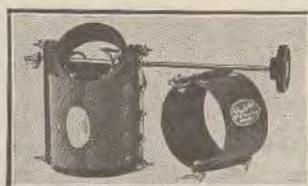
(Signed) T. P. WATSON.

Messrs. Keith Stokes Pty. Ltd.,  
Montana House,  
King Street,  
Sydney.

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## BURGESS ADVENTURES

## "BURGESS WINS AGAIN."

When the Airship Goodyear 3 won the right to represent the United States at Belgium, Burgess Radio Batteries supplied the electrical energy for the operation of the balloon radio equipment.

In our last issue was shown illustrated pictures showing the take-off of the winning flight, and also the radio equipment carried by the giant balloon.

This was the first of a series of "Adventures" of Burgess Batteries which will be shown in this paper. Following these will be series showing that Burgess are the preferred equipment of leading broadcasting stations, with an illustration of Westinghouse Station KYW; the United States Navy with a photo of the "Tennessee," which you remember came to Australia with the United States Fleet. Dog sleds carry Burgess to the Arctic outposts of civilization. They roamed the world in the Sheefack's radio room. These will show interesting illustrations, too.

This week, as you see, is shown the liner Leviathan, which has Burgess in its wireless room; an illustration

of a submarine of the United States Navy, which uses Burgess as standard equipment. The world's flyers carry them, too, but this will later be the subject of a special adventure.

The next week's series will comprise the Shenandoah and McMillan Arctic expedition. Watch for them.

Perhaps the adventure of most interest to us Australians will be a real Australian one. We are going to have it, and others to follow—the first, and coming soon, entitled "With Capt. Frank Hurley's party into the Wilds." It will be published in about a month—at the same time as we will all be flocking to see his new picture, "The Hound of the Deep." Even our American friends haven't a better illustration of how Burgess stood up to the work demanded of them.

The adventures to follow are too numerous to mention here, but they are more than sufficient to show that Burgess quality must be unusually high, when they were chosen above all others when there was 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 submarines.

We average buyers of radio equipment are fortunate, for we can secure these same reliable sturdy batteries by only phoning any high-class dealer, or walking a few blocks to his store.

When you replace your old batteries, ask your dealer for "Burgess." Insist upon this brand of laboratory product—you will receive the same measure of satisfactory service that has won the confidence of the radio public throughout the world.\*

## AN IMPORTANT DANCE NIGHT.

Arrangements have been completed to give listeners an opportunity of dancing in their own homes to the music of Henry Santrey's band, on Friday evening, October 1. An excellent programme has been arranged. The first part of the night's entertainment will include the first act of "Rose Marie," which will be transmitted from Her Majesty's Theatre. As this act has only been heard once during the earlier part of the run, and the play is now in its 18th week, listeners will indeed be provided with a musical treat. At the conclusion of Act I. (9.30 p.m.), dance music will be taken from the Wentworth Cafe, where Henry Santrey's band will be playing, until 1 a.m. The Cancer Research Fund Committee is making a general appeal to listeners, to have dance parties in their own homes, and to make a collection to augment the fund.

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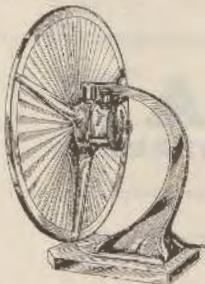
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**-- SWAINS --**  
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A boy's choir is being built up by broadcasting station 2BL, to strengthen the children's services, which are broadcast at 5.45 every Sunday evening. Uncle George's Children's services are among the popular features of the broadcasting stations. There must be hundreds of homes where the whole family join in the singing which reaches them from 2BL by means of a loud speaker. Children who have no opportunity of attending ordinary religious meetings hear the "Old, Old Story" from Uncle George. Station 2BL is now offering boys a chance to join the choir, and to have their voices trained—gratuitously, of course. The Sunday choir will also be used occasionally to sing from 2BL during the week.

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 BATTERIES.**



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