

WIRELESS WEEKLY

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FRIDAY, JANUARY 15, 1926.



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Editor: A. W. WATT

The Editor will be glad to consider Technical and Topical Articles of interest to Australian Experimenters. All Manuscripts and Illustrations are sent at the author's risk, and although the greatest care will be taken to return unsuitable matter (if accompanied by stamps), the Editor cannot accept responsibility for its safe return.

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Will broadcasting ever be a public necessity?

That question can, perhaps, best be answered by a cursory study of the evolution of the motor car. Lots of people can remember when the results of the first attempts at car building were placed on the roads and aroused the derision of those who were not particularly interested. At the time arm-chair critics gave it as their opinion that cars would always be the playthings of eccentric individuals, yet in the course of time motor cars were perfected, they came into general use, and out of what was once regarded as a luxury has been evolved the motor 'bus. No one can argue that the motor 'bus to-day isn't a public necessity.

Another indication as to whether broadcasting will ever become a public necessity may be obtained from a review of the history of wireless telegraphy. First adopted by the British Navy in an experimental sense, it is now to be found fitted on every steamer trading overseas, and commercial companies control stations handling a tremendous volume of public business. Out of ordinary wireless telegraphy has grown broadcasting.

Of course, it can always be argued that nothing in this world is a necessity. Quite so. Railway lines are not a necessity, because most of us have two

legs with which we can propel ourselves to our destination.

The only way to gauge whether or not anything is a necessity is to consider its utility to the public, and in this respect broadcasting is rapidly coming into its own. Having passed the nine days' wonder stage and progressed up through the period when it was regarded only as a means of entertainment, it now pauses awhile while those who control it, realising its tremendous possibilities, cast round for ways and means of linking it up with the national life.

America adapts broadcasting to farming, mining, education, fire-fighting, etc. Even Soviet Russia has placed herself in the foreground of the broadcasting stage by her wonderful system of rendering it primarily a service to the community.

Australia offers a vast field for the practical application of broadcasting, but the country districts are still very badly served. We need a system that will bring broadcasting within the scope of the country dweller with the single valve set. This should be the main objective, for until it is reached the question at the head of this article must always be answered in the negative so far as this country is concerned.

A. W. WATT.

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Systematic Method of Locating Faults in Receiving Apparatus

Part 2—By R. C. V. Humphery

Part I. of this article appeared in a previous issue of this magazine, in which it was stated that receiver faults could be divided up into three sections as hereunder mentioned:—

(a) No signals are heard.

(b) Signals are intermittent or varying in strength.

(c) Undesirable noises are heard in the phones or loud speaker.

We will now proceed to discuss sections (b) and (c).

Intermittent signals are invariably caused either by the aerial or through a bad contact in the receiver. If the aerial and down leads are not taut, in windy weather they are liable to sway and, in so doing, make intermittent contact with such objects as tin roofs, piping, or trees; similarly, a tree bent by a strong wind may occasionally touch the aerial. During the period that the aerial is in contact with this foreign object all signals will temporarily fade or disappear completely, to return as soon as the aerial is clear. The remedy is obvious.

It is not often that intermittent signals are produced through a bad connection, but the writer knew of one instance where a loose contact in a filament rheostat caused the filament to become extinguished and then light up again. A bad connection between the phone plug and jack may cause intermittent contact each time the phones are moved about. A loose fitting coil, cheap condenser, or badly constructed switch may all be responsible for intermittent signals. This fault is usually found without difficulty by lightly tapping the various units and wires with the finger-tip until the trouble is located.

Receiver noises are not always so easy to locate, and they are at times confused with static by the more inexperienced listeners in. They may be divided up as follow:—

(a) Noises associated with the aerial circuit.

(b) Battery noises.

(c) Microphonic noises in the valve.

(d) Noises due to dirty contacts and inferior parts.

(e) Amplifier noises.

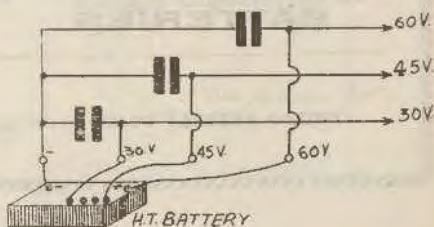
(a) Noises associated with the aerial circuit.

A grating sound, accompanied by a decrease in signal strength, is occasionally caused by the aerial or down lead brushing against a wall or similar object. In the case of a valve set, the noise will cease on disconnecting the aerial and earth, if the trouble

is external to the receiver. However, this method cannot be adopted in the case of a crystal receiver, as the instrument becomes dead once the aerial and earth leads are disconnected. Noises of this description are sometimes confused with static. They may also be produced as a result of badly soldered joints or loose connections in either the aerial or earth wires.

(b) Battery noises. When A and B batteries have reached the end of their useful careers they are liable to cause grating noises in the telephones, due to disintegration of some of the cells. Some radio enthusiasts advocate the removal of these defective cells, but, generally speaking, it is doubtful whether the slight temporary advantage gained is worth the trouble taken. The better way would be to purchase a new battery. When accumulators are used for lighting valves, any acid which may have accumulated on the battery tops should be wiped off, and the terminals carefully cleaned and wiped with vasoline, as this will prevent leakage of current. Similarly, dirt should not be allowed to accumulate on the tops of the B batteries, as this will produce battery noises in addition to reducing their life. As a B battery runs down its internal resistance increases, and this resistance may be sufficiently high to provide a means of coupling between the various stages and causing a continuous howl in the loud speaker. This howl may usually be overcome by connecting a fixed condenser of one or two microfarads capacity across the B battery terminals. When tappings of different voltages are taken to the various plates it is sometimes advantageous if howling is prevalent to connect a separate condenser from the negative H.T. terminal to each of these tappings. This is shown graphically in the accompanying diagram.

(c) Microphonic noises in the valve. Sometimes touching the receiver or even walking in the near



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vicinity may cause a strange rattling sound in the telephones. This noise is far more prevalent when using dull emitter valves, as the filaments retain their metallic properties of vibration due to the comparative low temperature at which they work. This can be overcome by mounting the sockets on a rubber sponge, which absorbs the vibrations, or special shock-absorber sockets may be purchased. It should be clearly understood that when mounting a socket on a rubber sponge, the socket should be attached only to the rubber, this in turn being secured to the panel or baseboard.

(d) Noises due to dirty contacts and inferior parts. Grating noises when not caused by the aerial can usually be traced to dirty contacts, loose terminals, poor or badly soldered connections, inferior condensers, broken phone cords, intermittent contact between grid and plate, and a host of other things. The only remedy is to go over the whole receiver carefully and systematically circuit by circuit, tightening up loose connections and re-soldering any doubtful joints. The cause of the noise can often be discovered by gently moving each wire connection or running the fingers along the phone cords. When overhauling the receiver the honeycomb coils should not be overlooked, making sure that the ends of the windings are firmly secured, and that the coil plugs fit firmly into their sockets. Badly fitting coil holders are an ever-present source of trouble.

Low frequency transformer windings may be

tested for continuity by connecting a single dry cell in series with a pair of phones to the primary transformer terminals. On closing the circuit, a loud click will be heard in the phones. The secondary windings may be tested in a like manner.

(e) Amplifier noises. A steady, monotonous howl which does not vary in pitch can usually be traced to the amplifier. This noise may sometimes be overcome by reversing the primary low frequency transformer connections. Transformers should be placed at right angles to one another, in order to minimise the inductive effect of their windings. Howling can often be stopped by earthing the transformer casings, and it is also an excellent plan to earth the negative A battery terminals when the aerial coil is inductively coupled to the secondary. Reception is often improved by shunting the primary winding of the first transformer by a .001 or .002 mfd. condenser. A howl is sometimes produced by the plate and grid leads being in too close proximity to one another. So these latter leads should be kept as short and as far away as possible from the H.T. winding.

In conclusion, if the job is tackled in an intelligent and systematic manner, by first ascertaining if the trouble lies in the aerial, H.F., detector or L.F. circuits, and then carefully going over each part of that circuit, the cause will eventually be located. Keep on worrying away at it, and above all—don't let it beat you.

Dial Markers made of Lugs

A SIMPLE DEVICE FOR FINE READING.

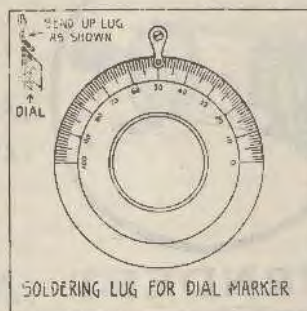
Accuracy of readings to within a fraction of a degree is of great importance when logging a set. With the customary marks of the panel or pointers an error is very easily made, because the readings will vary according to the angle from which you look at the dial. This is because the dial is possibly an eighth of an inch from the panel. The marker illustrated is very simple to make, and ensures a perfectly accurate reading.

It consists of a common soldering lug mounted on the panel with a small bolt and nut, and bent up so that the end protrudes over the edge of the dial. Lugs with long shanks have the neatest appearance and are most easily bent into shape.

The reading is made through the small hole to which the wire is generally soldered. If the lug is bent down so that it is just above the surface of the dial the reading will be the same, regardless of the angle from which the reader looks at it.

It is essential, of course, that the dial be mounted perfectly true on the shaft of the instrument. Otherwise the lug might scrape or be so far from the surface of some parts of the dial that a reading could not be made.

Little details like this not only improve the appearance of a set, but also make it easier to operate. You will be surprised at the neat appearance of this marker when it is carefully mounted on the panel.



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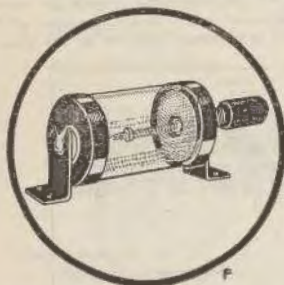
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A Short Wave Loop Receiver

By "Wireless Weekly"

There is probably no country in the world where loop reception is more necessary (for consistent results) than here in Australia. Those of our readers who spend a little of their time in tuning to the lower amateur wavelengths will agree that a great deal of instructive and interesting amusement may be obtained by exploring the lower waves. Using an outside aerial, however (especially the type used for broadcast reception), static and inductual noises somewhat mar these pleasures at times. This article is the result of a pre-arranged test between a country reader and our station, 2WW. The night of the test static was extremely bad, and, reception on an outside aerial being found impossible, an impromptu loop was made quickly, and very excellent reception was obtained. On the other hand, the country transmitting station was unable to receive any of the transmission from 2WW, in spite of the fact that this station was using twice the power of

parative tests of both can readily and quickly be made. With the switch to the left-hand position loop reception is obtained, and the 11-plate condenser then tunes the loop and primary coil to wavelengths ranging from 60 to 125 metres. When loop reception is used the earth switch should be broken, as the directional properties of the loop will be spoiled if the switch is left closed.

With the double pole double throw switch to the right-hand position the outside aerial is used. This may be the ordinary broadcast reception type, as aperiodic aerial tuning is used when the switch is in this position. The loop is made up of two wooden hoops 18in. across; six pieces of Radion or Dilcto 6in. x 2in. are then screwed equal distances apart around the loop, and five small grooves cut in, apart to take the turns of wire. The wire should be of good quality. If proper loop wire cannot be obtained, stretch out 20 or 30 strands of 30

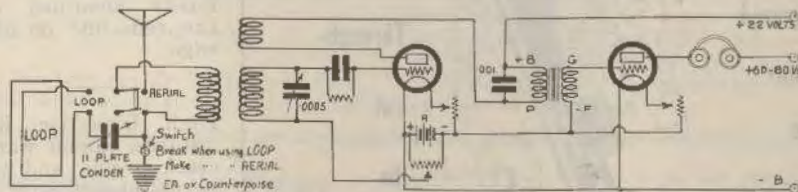


Fig. 1. The Circuit.

the country station. The success this end, therefore, undoubtedly lay with the loop aerial.

The results obtained led to further experiments, and 2WW has logged amateur stations from every State, using two valves only with a loop. The efficiency obtained on short wave reception using the straight-out regenerative detector valve is surprising. The circuit employed is one of the most popular types used in Australia, and as far as our experiences go we find it the best. It has wonderful advantages, the biggest being the fact that it tunes with absolute efficiency both on the low and very high broadcast waves. The switching arrangements for loop reception and the potentiometer in the grid circuit of the detecting valve are the only refinements added to the well-known three-coil circuit. By studying carefully Fig. 1 you will readily see that the double pole double throw switch is the selector for aerial and loop. In this way actual com-

gauge enamel wire carefully, then wind them together with a small brace, and you will find that your loop, when finished, has maximum efficiency. The primary for the low waves consists of five turns of No. 16 d.c.c. wire wound lorenz fashion on a 2 1/2 in. former. The coupling of the primary coil is not at all critical, and it may be permanently fastened if so desired. But it makes the set more flexible if it is movable.

The secondary is mounted with 15 turns of the same gauge wire and tuned with a .0005 condenser, which gives practically the same range as the loop which is tuned with a .00025 variable condenser. The resistance of the rheostat should be of such a range that it enables the operator to have a very accurate control over the temperature of the filament of the valve he is using. Two tickler coils should be wound, one with 12 turns and another with 18 turns. For the very low wavelengths the 12 turn

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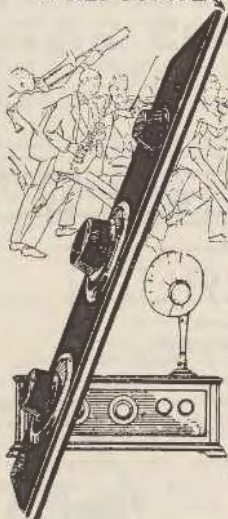
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one will be found the best, but for waves above a hundred metres the 18 turns one will generally be found the most satisfactory.

The ordinary three coil mount of good quality will be found to give excellent results, so that the low wave coils as stated above should be mounted to the honeycomb coil mounts. Be careful to see that these mounts are of the very best material.

Operation of Receiver.

For reception of C.W. place the potentiometer so that the grid return is positive. When using the

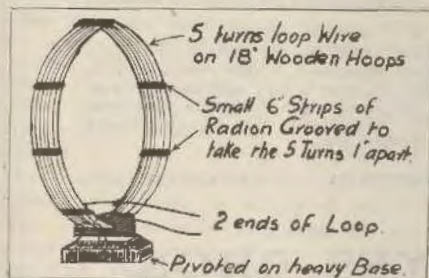


Fig. 2. Illustrating Loop.

loop remember you have two circuits to tune. Carefully experiment with various plate voltages on the

detector valve. The regeneration is controlled by the following:—(1) Plate voltage, (2) coupling of coils, and (3) potentiometer in grid circuit. A little experience with the receiver will very soon show you the best positions of the above. For reception of phone on the short waves, very careful adjustment of the potentiometer is surprisingly helpful. 2WW, and no doubt other stations, will be carrying out extensive experiments during the coming year, and for this reason we strongly advocate the use of this potentiometer. It is somewhat easy to tune in the short wave C.W. stations, but without the use of the potentiometer mentioned long distance phone work is somewhat difficult and inconsistent. The same receiver may be used for ordinary broadcast reception, when the double pole double throw switch should be placed in the right-hand position and the necessary coils plugged into the holders. It is absolutely unnecessary to use another receiver specially built for ordinary short wave reception, as those who built the circuit described in the article on "How to Convert Your Broadcast Receiver to a Short Wave Receiver" ("W.W.," Feb. 27, 1925) will be only too pleased to vouch for its efficiency.

In conclusion, we want to thank all those listeners who have sent in reports on the .90 metre phone work from 28X and 2WW. These experiments will be continued in the New Year, increasing the power and decreasing the wavelength. Further reports will be appreciated.

Lug Connections for the Phones

EASY TO MAKE.

To have a means of quickly connecting and disconnecting the phones is important when experimenting with sets. A great deal of time is lost when it is necessary to solder the wires in the set to a jack or binding posts and then connect the phones to these.

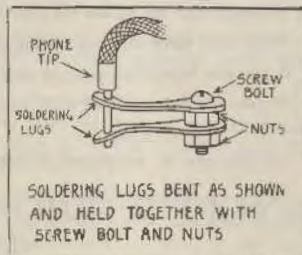
The little lug arrangement illustrated is an instantaneous phone tip jack. The tips of the phones are inserted through the two small holes, through which the wire is usually run to be soldered, and the natural spring tension of the lugs will hold the tips in place. When the phones are to be disconnected, all that is necessary is to press the ends of the lugs together and the tip is immediately released.

Make sure when selecting the lugs that the small holes are large enough for the phone tip to go through. They should not be too large, either, as if they are the tip will not be grasped firmly.

To assemble the jack, take a bolt or screw, whichever you are using, and place on it first a

washer, a lug, a washer, a lug, and two more washers. Then screw it to the baseboard if it is to be used in this position, or bolt it to the panel.

The ends of the lugs are spread apart about an eighth of an inch, so that the two holes are at an angle to each other.



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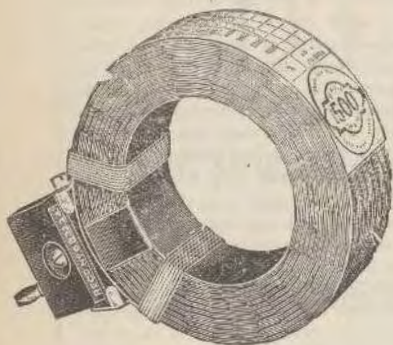
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HANDY HINTS

HANDY BATTERY CONNECTION STRIP.

Use Fahnestock Clips.

All the radio sets shown in the radio columns, with the possible exception of two, have shown binding post strips for connections on which are mounted binding posts for all connections, including the aerial and earth. This makes wiring easy and gives the set a very neat appearance.

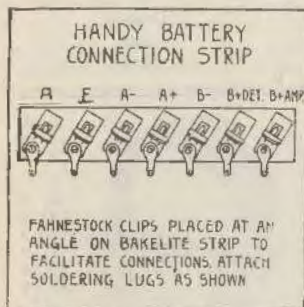
When wires are connected to binding posts, there is always danger of the wire working loose and shorting with another wire thus burning out the valves or ruining a battery. Also binding post connections are difficult to make, as the wire is often squeezed out from beneath the nut when it is tightened.

This trouble is practically eliminated in the new type of strip shown.

When Fahnestock clips were used, the batteries may be hooked up in a fraction of the time required when binding posts are used and the connection, when made, will never work loose.

The ends of multi strand wire should be soldered so that they will go under the catch with ease.

The clips are placed at an angle so that the wires can be easily inserted. They are fastened



to the strip with small nuts and bolts to which soldering lugs are attached underneath the clip. The connections from the set are made to the lugs.

It is essential that the clips be fastened securely to the strip, so that they will not turn and short each other.

THE GRID RETURN.

What it Means.

The grid return is that part of the radio circuit leading from the grid of the valve to the filament circuit. In the detector circuit it passes through the input coil, which is the secondary coil of the tuner in a loose-coupled set and the primary of the tuner in a single circuit set. The grid return may be connected to either the positive or negative A battery, but will give better results on one of them, depending upon the valve. In hard valves, such as amplifiers when used as detectors, the grid return is connected to the positive A battery.

What voltage C battery?

In the audio frequency amplifier, the grid return is always connected to the negative of the A battery when no more than 45 volts is used on the plate of the valve. If more than 45 volts is used, the grid return should be connected to the negative of the C battery and the positive of the C battery connected to the negative of the A battery. The value of the C battery is dependent on the value of the B battery and is usually $1\frac{1}{2}$ volts for every $22\frac{1}{2}$ volt block of B battery over the first unit. That is, with 67½ volts the C battery would be 3 volts and for 90 volts the C battery would be $4\frac{1}{2}$ volts. The C battery should be experimented with to get the best results.

With radio frequency amplification the usual practice is to connect the grid returns to the centre arm of a potentiometer but where one is not used the grid return is connected the same as the audio amplifiers to the negative A battery.

The rheostats of all valves regardless of whether they are detectors, radio or audio frequency amplifiers, should all be connected in the negative side of the filament leads. When connected in the negative lead of audio frequency amplifiers the voltage drop across the rheostat gives the negative potential on the grid of the valves.

If there is a loose connection or imperfect contact in the grid circuit, your set will usually have a continuous hum similar to that of an alternating current hum when your aerial or earth wires are run close to alternating current lines. The hum due from an imperfect grid contact will persist after the aerial and earth have been disconnected.

RADEX 199 9/9 201a

VALVES

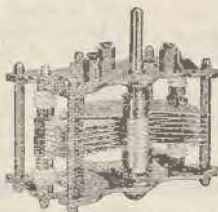
Standard 199 Socket, .06 amp, 4 volt filament. Standard American Socket, .25 amp., 6 volt filament.

Prospective customers for these valves need not hesitate to order as the "RADEX" are well up to Standard and are all carefully tested in the valve tester before sale.

We can also match them for your super-bets and Radio Frequency sets FREE

See "INSULATOR" (Mr. W. H. Hamilton) at our Sydney Store every Friday evening about your Radio Problems.

PYREX INSULATION



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CRESCENT AUDIO TRANSFORMERS:—6 to 1; 3½ to 1	s. d.
VARIABLE CONDENSERS:—.00035 R.C.C. make	13 6
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NEUTRALISING CONDENSERS.	3 9
ORMOND RHEOSTATS:—6 ohm	1 3
SINGLE VALVE AMPLIFIERS:—	32 6
TWO VALVE AMPLIFIERS:—	47 6

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28 Royal Arcade 569 Hunter St. West
SYDNEY NEWCASTLE

B 5891

Phone, Newcastle 1622



Norman Wright.

Norman Wright, tenor, continues to please the listeners-in with his fine voice and exceptional selection of songs. Mr. Wright's art is constantly developing and his power of interpreting increases, so that he has a very enviable future as an artist. Singing from Station 2BL, he has a large following in the radio world, who watch for his appearances on broadcasters' programmes.

Smart Set Again.

On January 13 the Smart Set Diggers appear again on 2BL's programme. The delightful singing in unison which is a feature of their work is very much appreciated. Solos, duets, and concerted numbers are featured. The soprano numbers in particular always evoke expressions of surprise when it is realised that the singer belongs to the sterner sex.

Mozart's Opera.

Duets and solos from Mozart's favourite opera, "The Marriage of Figaro," will be heard from 2BL on January 14. Miss Nellie Chadwick, one of the soloists in the recent Conservatorium production, is joining forces with Mr. Clem Williams, another well-known artist at 2BL's studio, and the programme will be heartily enjoyed. Miss Chadwick has recently accepted an engagement as solo soprano at

St. Patrick's Church, and her fine singing is now one of the features of the choral work in that church.

Two Stars.

Miss Heather Kinnaird, a very promising young contralto who seems destined to go far in the musical world, will sing favourite numbers from her repertoire on January 15. On the same programme is Miss Edith Dickerson, of the Cheerio Girls, whose songs at the piano have been a feature of this excellent organisation which has done so much since its inception in the war years. Miss Dickerson has made an initial radio performance, which was very successful. There will be additional items by Broadcasters' Brass Quartette.

Saxophone Next.

Miss Millie Hughes (soprano), the Honolulu Duo and Elliott and Edwards are artists appearing on January 16 from 2BL. The Honolulu Duo have added that much maligned instrument, the saxophone, to their other instruments, and solos designed to cause appreciation of the instrument are now featured. It is an instrument that broadcasts perfectly. Edwards and Elliott in harmony numbers are keenly appreciated.



A recent portrait of Mr. W. J. Maclardy, Managing Director of Broadcasters (Sydney) Ltd.



Mr. Norman Campbell, Journalist and Lecturer, famous for his knowledge of the Australian Stage. Lectures on "Plays and Players" from 2BL.

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Miss Nellie Chadwick, Soprano, 2BL.

A Discovery.

It is rumoured that 2BL has discovered a jazz pianiste of exceptional merit, whose ability to secure syncopated effects from the piano threatens to set many feet tingling and to add a new inducement to dance. This lady, who has not hitherto figured largely in public, stepped in to fill a breach recently and delighted the listeners-in. She will be featured in future programmes. Her name is Miss Lyall Hine.

Services a Boon.

Sunday services are now well established so far as 2BL is concerned, and very often the offices give



Miss Leah Freedman, Elocutionist and Dramatic and Comedy Sketch Artist, 2BL.



Miss Gladys Hart, Soprano, singing from 2BL.

the impression of a church conference because of the number of clerical gentlemen calling to arrange for services to be broadcast. It would be possible to broadcast about ten services every Sunday in view of the number of churches offering. There is a fine spirit of non-sectarianism in broadcasting, as no particular sect or church is allowed predominance. To dwellers in out-of-the-way places these services are a boon and a blessing, as numerous letters testify. Moreover, the introduction of a hymn service with Bible stories into the bedtime story hour is making a wide appeal and reaching children far outside the ordinary reach of Sunday School.

Ambassadors' Orchestra.

There are many letters from listeners-in asking for dance music and still more dance music. The midnight sessions on Mondays and Thursdays, when the Ambassadors' Jazz Orchestra caters for the dancing enthusiasts, are especially popular. Many people find that for entertainment there is nothing to equal the music that is brought over the air, and the splendid dance rhythms of the Ambassadors serve jazz parties far and wide. On the same nights the early portion of the programme includes the Ambassadors' Salon Quartette, directed by Mr. Claude McGlynn. Selections from opera and chamber music are exquisitely played, and broadcast by 2BL.

Indian Love Lyrics.

Burdekin House, so well known in Macquarie Street, is now the headquarters of a group of earnest people working in the interests of the Royal Prince Alfred Hospital, and musical entertainments are frequent. One delightful evening that has been arranged for January 19 is "An Indian Love Lyric Evening," and this will be broadcast by 2BL.

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The GADSBY & CO. RECTIFIER TRANSFORMER is a fool-proof battery charger and can be operated without experience. It will charge two lots of each four—six volt batteries in 24 hours.

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A FURTHER REPORT from KOSCIUSKO

The Wireless Set supplied by David Jones' to the Hotel Kosciusko continues to give excellent results. It has now been in operation several months. Its continued reliability is most gratifying to David Jones' Radio Department and also to Mr. Charles MacLurcan who designed this instrument for the Government Tourist Bureau.

Sets similar to this, and all other radio sets and accessories can be immediately supplied by our Radio Department.

Let our Experts solve your wireless problems. If your set is not giving the best possible results 'phone City 6335 or B6971 and a qualified engineer will call and effect a repair or alteration at the lowest possible cost. Advice is given freely.

DAVID JONES

Ward Lear's Minstrels.

Lovers of the old type of entertainment will be pleased to note that Mr. Ward Lear and his talented Minstrels are again to the fore. Station 2BL is featuring them on January 26. All sorts of new jokes, sketches, and patter are being interspersed between songs and duets. Many people have been transported into the magic regions of thirty years ago and their youth renewed by hearing this company on the air. Constant requests are received for further performances.

Dramatic Sketches.

Miss Leah Freedman and partner will re-appear in dramatic sketches at the end of this present month. Miss Freedman is an emotional actress with equal ability in presenting dramatic and humorous items, and both aspects will be catered for in the sketches to be presented. Further information will be published in regard to the names of the plays and sketches in which she will appear.

Californian Experiences.

A clever young Australian who made good both as a "movie" actress and as a journalist in California is Miss Helen Beegling. This lady will detail some of her experiences in California in the homes of the movie stars, as well as in the actual filming of some of the masterpieces in which she played minor parts, from 2BL's studio. Her description of her experiences in the famous Fairbanks film, "Robin Hood," will entertain the listeners in, while her struggles to obtain an entry into the film world will enlighten and perhaps dismay many film aspirants. Miss Beegling has now been engaged for a series of lectures during February.

Homeward Bound.

Miss Ethel M. Friend, often heard from 2BL, is leaving for England during this present month to undertake a musical and broadcasting career in the Old Land. Armed with many letters of introduction and the actual experience gained at 2BL, Miss Friend is hoping to find the magic portals of many European broadcasting studios opening before her. She carries with her the good wishes of the Australian listeners-in.

Theatre Broadcast.

On Friday, 15th, 2FC (by permission of J. C. Williamson Ltd.) will broadcast for the first time the first act of the new musical play "Culture," featuring Miss Marie Burke. From the studio—Wally Baynes, comedian; Miss Iva Thornton, soubrette; Miss Joyce Hadley, soprano; piano solos by Ewart Chapple.

Crystal Palace.

On Saturday, 16th, a programme by the Crystal

Palace Orchestra will be broadcast by 2FC, and from the studio—Scott Alexander, comedies; dance music from the Westworth. Other studio items include—Mabel Butcher, soprano, and Courtney Ford, comedian.

Services.

The morning service on Sunday, 17th, will be taken from St. Andrew's Cathedral by 2FC. The pleasant Sunday afternoon service arranged by the Central Methodist Mission, and in the evening the church service from St. Stephen's. At 8.30 p.m. a studio concert, including Madame Emily Marks, soprano; Miss Phyllis Bazel, contralto; Mr. John Andrews, tenor; and the instrumental trio—Mr. Lionel Lawson, violinist, Mr. Gladstone Bell, cellist, and Mr. Lindley Evans, pianist.

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A Storage Battery Valve.

Filament Terminal Voltage 5 volts
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 Millions of them are used, yet what a difference
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Genuine Bakelite Base.

Try changing tubes in a radio set and note how differently different tubes—often of the same make—affect reception. Truth is, all tubes vary; only the most rigid inspection will cut variation to a minimum. CLEARTRON means GUARANTEED INSPECTION.

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(STANDARD BASE.)

A Dry Cell Valve.

Filament Terminal Voltage 2.8 volts
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 Plate Voltage 40 to 100 volts
 Minimum filament volts required to make
 tube oscillate 2.5 volts

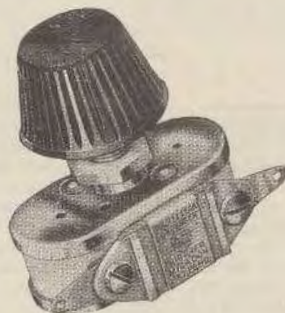
A Dry Cell tube made to fit in a standard socket. A special process of manufacture has been devised whereby CT-199 tubes are made as luminous as possible from any sound distorting.

They are sensitive to weak signals; economical and rigid. Genuine Bakelite Base.

They can be used either as oscillator, detector, radio or audio amplifier.

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FROM HERE AND THERE

AN ILLEGAL TRANSMITTER.

Misuse of Call Sign.

On page ten of "Wireless Weekly" of December 24, 1925, we published a paragraph stating that "3YY has been noticed on the ether of late."

The authorised 3YY is Albert. M. Bush, A.M.P. Buildings, Bendigo. We have now been notified by Mr. Bush, that he has not been transmitting for three months as he has been busy organising the Bendigo Y.M.C.A. Club. To quote from Mr. Bush's Letter:—

"According to my deductions, the operator who is 'stealing' my call sign is situated in or near Melbourne. As you have a paragraph about it, I presume your Victorian Correspondent sent it to you. Will you please ascertain whether he can let you know, to pass on to me, who are the 'neighbours' to whom this masquerade is not a 'nuisance.'"

Mr. Bush enclosed with his letter, communications received from various quarters reporting reception of his signals. This seems a clear case of misrepresentation on the part of some person probably not in possession of a license—any further information upon this matter will be appreciated. Obviously occurrences such as these do an incalculable amount of harm to amateur status.

SPARK INTERFERENCE.

Interference with broadcast reception by the transmissions from the local commercial spark station, VLD, still continues. This interference effectively prevents the reception of Australian broadcasting stations, the only sources of high standard broadcasts available at present to Auckland listeners. The time for a change-over to more modern methods of valve transmissions by all New Zealand commercial stations is long overdue, and it to be hoped that the necessary steps for their conversion will not be long delayed.

BACK FROM ABROAD.

Mr. R. H. Howell has just returned from a trip to the United Kingdom and to the principal countries of the Continent, from where he proceeded to Canada and the United States. He has picked up several novelties in wireless lines, which may be seen at his establishment in Barlow Street.

RADIO CONFERENCE.

The Association for Developing Wireless in Australia, New Zealand, and Fiji hopes to arrange a conference early this year for the purpose of discussing licence fees, broadcasting stations' revenue, censorship, wireless for news purposes, copyright, experimental and general matters affecting wireless.

PROGRESS OF BROADCASTING.

As Seen by New Zealander.

With modern methods of transmission and reception of wireless telephony, it is possible to obtain reproduction of musical sounds and speech as free from distortion as the ordinary ear could desire, and this, combined with broadcast transmissions of excellent quality, has led to an astounding number of nightly listeners-in in America, Great Britain and the Continent.

In New Zealand, however, the number of listeners is very small, owing mainly to the apathy of the powers that be to the desirability of providing a broadcast service of high standard. A year ago listeners were told to expect broadcasting on an organised basis by the winter of 1925. These broadcasts did not materialise. It is an unfortunate fact, too, that there is as yet no real indication that broadcasts of a standard expected by the listeners-in will be obtained in 1926. If, however, the matter broadcast from the station to be erected in Auckland during the coming year is comparable with the standard of the station itself, there will be a year hence a very considerable increase in the number of listeners in the Dominion. During 1925 the dull-emitter valve has come into its own for reception purposes, and bright emitter valves now seem relics of an earlier wireless age.

A BARGAIN. 10-watt coupled Hartley transmitter, wavelength 40 to 100 metres. Built of best materials. Weston radio frequency meter; 1.5 amp Weston milliammeter. Motor generator, 300 volts. Also low loss receiver. The lot for £20. Inspection invited. RAY PARSONS, 38 McDougall Street, Kensington.

PHILIPS VALVES

B.406 "THE NEW WONDER VALVE." B.406

This Valve is a product of many months' exhaustive work in our own Laboratories. Philips' have a staff of over 80 scientists, many of whom are men of international reputation, continually employed in examining and perfecting the products of the Works. After long and continual research, this new WONDER VALVE has been developed and perfected, and for general purposes is without a rival. The current consumption is .1 amp. only, whereas all valves of the 201A type take .25 amp., and the B106 filament requires only 4 volts, for which purpose three dry cells or two accumulator cells are sufficient. This remarkable saving in current is effected without any loss in volume, and, indeed, it may be said that the B.406 reproduces music more faithfully than any valve yet manufactured. When purchasing valves for your Radio set, it is imperative that you obtain the products of the Philips factory, as the name PHILIPS' gives a guarantee of absolute satisfaction and money well spent.

Price 17/6 Standard English or American Cap. Price 17/8

A.110 — "THE ONE-CELL VALVE."

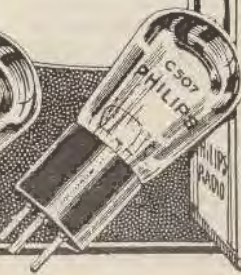
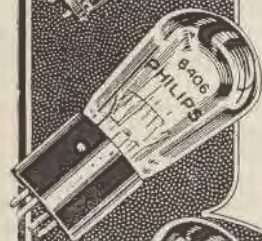
Detector and Amplifier.

Filament Consumption, 1.0/1.3 volts, 0.06 amp.

Plate Voltage, 80/100.

"A.110 consumes less current than any other Valve yet produced, and makes it possible to operate a set for many weeks on one dry cell. The filament is not coated with Thorium Oxide, as in the ordinary Dull Emitter, but is made under a specially patented process, and as long as the marked voltage is not exceeded, the filament will keep the same characteristics throughout the life of the Valve."

Price 17/6 Standard English
or American Cap. Price 17/6



To the Kiddies

From Uncle George.

Hello, Little Ones! This is Uncle George writing this time instead of speaking. How the weeks go round! It seems no time since it was letter hour, and here is our editor worrying me again, saying that he must have my letter to you all. Well, now, let me see. You have all heard about the way in which Hector disappointed us over his wedding. Everything was arranged for it to take place in the studio, and then he and his sweetheart, Hectoreen, who comes from South Africa, went off quite quietly and got married without a word. Well, of course, he is back at work again, and Hectoreen is getting broken well into the work of watching all the little girls. There's no knowing what we shall hear now.

Uncle Jack is just as fat and as cheeky as ever. I had to talk to him for saying things about me when I was not in the studio. But, after all, he would be hard to do without, and next to myself he loves all of you better than anyone else in the world. Cousin Clarice is growing up, I think, as she has developed a wonderful taste for party frocks and so on. Recently she came into the studio with a frock on that was all fluff and furry at the one time, a real party sort of frock. But she is still Cousin Clarice, all the same.

Soon the holidays will be over. I hope that you are all taking advantage to keep fit and strong, and so be ready for lots of hard work when school starts again. This is the time to get into the surf if you are near the sea, and learn to swim and dive. If you are in the country you want to be about in the mornings and out all day to get the good, fresh air. There are lots of things you can do in the country that you can't do in the city, and there should not be a dull moment. But remember all the while that holidays are intended for a rest and change from study, and get ready to start afresh when once school starts.

We have had lots of visitors to the studio, and the radio family goes on increasing. The beauty of it is that all through, with new members constantly coming in, we never seem to lose any of the old members. Be sure and write regularly; a letter from every member of the radio family once a month is what we are aiming at. Stars are still being sent to those who want them; after months of practice Uncle Jack throws them quite straight now, so even when I am off duty you can still be sure of getting them.

Harold, the chocolate bird, is still here in the studio, and he is very lucky to have escaped the

fate of his namesake, Harold the First, who was eaten alive by musicians and engineers. And when you come to see us don't forget to ask us to show you Hubert, Horace, and Horatius—all birds. There is Cecil the Bear, the Cat—which has never been named, and several others waiting to be introduced.

And Mike—don't forget Mike, for without him there would be no broadcsting and no radio family. So it pays us always to be polite to Mike—and, of course, to everyone else. We want the radio family to be famous everywhere for courtesy and manners.

Now, this should be enough to satisfy you all (and our editor—another person to whom we are always polite) for this week. So I shall say "Good-bye" until next week. Good-bye, g-o-o-d-b-y-e-e, with lots of love to you all.—From

UNCLE GEORGE.

SEE WIRELESS WEEKLY NEXT
WEEK FOR THE KIDDIES ONE
GUINEA UNCLE GEORGE COMPETITION.

PROBLEMS OF AMERICAN BROADCASTING.

The Interference Question.

Mr. Hoover, the U.S. Secretary of Commerce, opened the fourth National Radio Conference on November 9th in New York. Mr. Hoover's inaugural speech dealt very largely with the problem of interference, which, he said, was quite serious. Owing to the higher power now being used by American broadcasting stations, the range of non-interference between stations using the same wavelength was decreasing. With only 80 wavelengths available for broadcasting, and more than 175 applications pending for new licenses, the time had clearly arrived to abandon the policy of freedom of the air.

Observing that the policing of the ether traffic should obviously be a Federal responsibility, Mr. Hoover added that it would be preferable for local communities to decide who was to supply broadcast programmes, so that undesirable features might be eliminated. Advertising provided the broadcasters' principal revenue, but this should not mean that individuals and firms should monopolise a listener's set with details about their business and descriptions of their wares.

Bachelors tune-in the most distant stations on the loud speaker.

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Quality First

THE EVER-READY Radio Batteries are manufactured from the finest materials obtainable. Owing to the exceptional demands for Ever-Ready B Batteries we have new and fresh stocks arriving from the factory almost daily, and all Batteries are tested on a special testing instrument before despatch.

Large Size.

XP30 volts. 10 -
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Illustration of W.P. 40 B Battery.

Small Size.

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W.P. 40 v. 12 G
W.P. 50 v. 18 -

All Ever-Ready Batteries are supplied with wander plug.

Ever Ready "A" Batteries.
Type L.T.B. with 3 terminals
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1 1/2 inch.



Illustration of L.T.B. "A" Battery.

Ever Ready "Gold Blue" or
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3 terminals giving 1 1/2, 3, 4 1/2
volts.

2 1/2 inch.

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C.A.V. Accumulators are British manufacture - Strong and Durable and will give efficient service for a number of years; each cell is fitted in Ebonite containers, and are absolutely leak proof.

2 volt 10 ampere hour 20/-
1 volt 40 ampere hour 18/-
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1 volt 45 ampere hour 17/-
8 volt 8E ampere hour 20/-
3 volt 30 ampere hour 55/-
4 volt 30 ampere hour 11/-



EBONITE CONSTRUCTION.
E.E. RANGE 2, 4, and 6-VOLT

"WONDER-TONE" Heavy Duty Accumulators, 6 volt 120 ampere hour, in Ebonite containers and enclosed in Acid-Proof Box, with handles inside.

16/- each

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OUR MAIL ORDER DEPARTMENT, 28 Gresham Street, is under supervision of a Mail Order Expert, which ensures prompt despatch, careful attention to packing, and all details necessary for an efficient Mail Order Service. We despatch within 24 hours. May we have your order?

Open Friday Nights until 5 p.m. Circulars Free for all systems. Advice free. Your order received by Experts. Satisfaction guaranteed. Established over 20 years.

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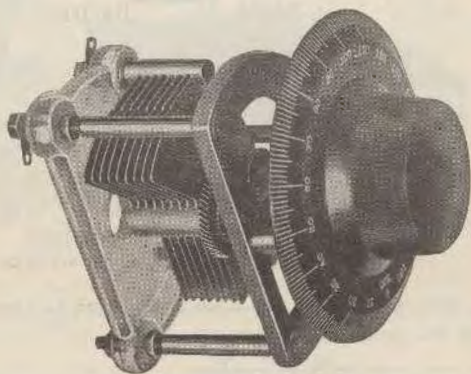
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Victorian Notes

(From Our Special Correspondent.)

Critics of the Programmes.

3LO, of course, welcomes criticism with open arms, like that old brazen image of somewhere or other that used first to be heated up to red heat before strangers were consigned to its embraces. But really 3LO and other broadcasters are quite right in suggesting that critics might at least submit specimen programmes of their own. Then the critics could criticise each other, and wouldn't 3LO live up to its initials and laugh outright! My wireless bird tells me that during Melbourne's last Wireless Exhibition the organisers were offered a free hand to compile the week's programmes at 3LO, but, like wise birds, they preferred to leave it all to 3LO and to complain bitterly to the papers about the rotten programmes provided.



But continuing to speak on programmes, couldn't a month be handed over to would-be critics or even one night a month for entertaining aspirants, and labelled "Programme to be arranged by the Match-makers' Union," for example? Then the world could be asked to vote, with the express stipulation that the winner should provide no more programmes. Let one good programme corrupt the world. You see, getting together a programme on paper is one thing. Getting the performers together is yet another. And getting a unity of atmosphere in each programme is a third. As we all know, the ordinary atmosphere is made up of Oxygen to give the exhilaration, Nitrogen to quell the oxygenic exuberance, and traces of Helium, Neon, and other rare gases to keep one breath from being too deadly like another and to serve other purposes yet to be discovered. Even so must a programme be composed. Needless to say, the present writer is not entering the competition. One really must give 3LO and other folk a chance.

Pariahs of the Ether.

Those two outcasts, 6WF and 2FC, that are now exercising the vituperative powers of the exponents of short-wave reception, must be feeling very lonely and very sad up on their high wavelengths of 1100 and 1250 metres respectively. All the other stations are below 500 metres, and joyfully interfere with one another, but not with these two, yet 6WF and 2FC are alleged to be interfering in a more insidious way, by preventing would-be listeners-in from in-

stalling the only truly selective set, to wit, the Neutrodyne, which will only function well on the lower broadcast band. Exactly why those who want to hear 3CL, 3LO, 3AB, 2BL, 4QG, and others of that ilk are prevented from investing in a Neutrodyne set is not very clear, since surely half a dozen stations to select from ought to be enough; but, of course, it's the station you can't get that everyone wants most.

All the same, it is a little difficult to understand why 2FC and 6WF can't bet just on a Neutrodyne receiver with very slight adjustment. The advocates of the Neutrodyne, of course, retort that the easiest adjustment would be to bring 2FC and 6WF down among the short-wave crowd. This craze for a crowd is likely to be the death of Wireless as a popular entertainer, as equally, of course, it could be urged that a re-distribution of wavelengths over a much wider band would suit the public purse and purpose a great deal better. For reasons of their own there are those that are interested in special types of receivers who translate the long waves on every possible occasion, and endeavour to hoodwink the public into the belief that short waves are the only wear.

Now that Rugby is coming in with a bump on metres higher yet, they are compelled to explain that Rugby does not transmit telephony, which is absurd. We have been told, too, that modulation of long waves is difficult, but so was selectivity of short waves a few years ago; so, as a matter of fact, there appears to be nothing inherent in the length of the wave as regards difficulty either of modulation or reception, while there is little doubt that, so far as simplicity of design and freedom from defects due to high frequency induction and leakage are concerned, the long wave has merits of its own as a popular institution. With the present urge to get ever and ever shorter wavelengths and correspondingly higher frequencies, it is likely that listeners-in of the period 2000 A.D. will have to be tastefully attired in metallic armour like mediaeval knights and earthed to the nearest water-pipe.

In those days not only transmission like that recently given from 2FC and 3LO by the divers will have to be from the bottom of the sea, but listeners-in also will have to become amphibious and receive their favourite jazz in a diving suit at the bottom of the Yarra ouze or among the sewers of our beautiful harbour. The fishes will then see strange sights. Alternately, perhaps, purer reception will be effected up above the Heavyside Layer, and we shall sit like angels in nubibus and conveyed thither by an acrobat dispute with the eagles the right to hear the music of the spheres.



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Imagine the indignant letters pouring in to the papers to complain that the song of Gabriel was heterodyned by one of 3LO's Billy Bunny-talks, or that Satan's Address to the Sun had been mutilated in transmission by a speech from Tom Walsh, exclusive to 2KY. One thing is certain, the lower we wallow in short waves the more we'll have to get off the earth, and the future New Zealander as he ruminates among the ruins of St. Paul's (London, England) is more likely to be heard by his pre-deceased compatriots on a wavelength of some fraction of a millimeter than if he persists in measuring out his waves in furlongs like 2FC and 6WF. The pterodactylic diapasons of prehistoric broadcasting, in short, are to be replaced by the creaking twitterings of some fluttering valve that will lie under a thimble, and we will be at the mercy of the manufacturer, who alone knows under which thimble hides the station you want to hear.

A Wireless Xmas.

It cannot be said of Melbourne, at any rate, or in any great measure, that this is a very wireless Xmas, but one or two points of interest therewith are worth making a note of. The time is now about ripe, surely, for some enterprising publisher to get

out a book entitled "The Humours of Wireless," wherein may be gathered together all those diverting pictures and jokes that have been accumulating ever since Adam first made that joke about his loud speaker to Eve. Some of the Studly Dog pictures, for instance, or the uproarious jokes of "Smith's Weekly," or the careful drawing and character study of such a "Bulletin" picture as Perceval lately presented to us with, over the title of "Mins tinkit I don't know that Pfeller." Then there was to be seen during Xmas week as a poster on McEwan's window a gaudy decoration that showed Father Xmas clambering over the roofs and finding his way grievously impeded with wireless aerials until he becomes inextricably entangled, while all around furious folk yell anathemas at him for disturbing their slumbers or their listening in. In this case Father Xmas surely wishes Xmas could be made more truly wire-less.

But on the whole, as was said, the trade has been very half-hearted in giving prominence to wireless in Melbourne this Xmas. The old tradition that in summer wireless is a dud dies very hard, and even 3LO's added power has failed to exterminate it.

Queries Answered

(Note: All queries required to be answered in this column must be accompanied by an amount not exceeding £5. Cheques or notes not objected to, but will not accept used cars. Over 100 replies are unavoidably held over.)

"Scientific," Oodnadatta.—Q: What is static? A: Friend, let us seek a spot isolated from the cops, and we'll tell you candidly.

"Curious," Doodnahatta.—Q: I am building up a Hughes receiver. What is the value of the what's this? A.: 25,000.

"Blue Blood," Hattidoodna.—Q: I am desirous of purchasing a simple two valve broadcast receiver, but am not prepared to spend more than fifteen hundred pounds on it. Where can I get such an article? A.: From us. Leave for Sydney immediately. Wire us when leaving. Keep wiring us every half hour until you arrive.

"Yob," Naddoodhat.—Q: Where was the first loud speaker made? A.: If you come down here you can ask that at the hospital after we get through with you.

"Oozthis," Tahdoodan.—(What's in a name,

anyway?) Q: Some d—n thing's wrong with my outfit. How the heck do you explain a queer thumping noise? A.: Take it to the nearest garage. Big end needs fixing up. Tell 'em you're a radio fan—if 'll cost you more.

"Tra-la," Dandootah.—Q: I am considered locally to have a charming tenor voice, and I'd like to have it broadcasted. Could I come in to "Wireless Weekly" and have it tested? A.: Certainly, dearie. We have a special razor for the purpose. You might try it out in the Zoo first, though, and if you get out alive, we'll risk it. Try anything once.

"Cautious," Oodanhatta.—(Whistle this.) Q: Where can I obtain a really cheap set? A.: In Japan.

"Anxious," Dooatand.—Q: What are the parts necessary to build a neutrodyne-flex? A.: Please say whether you prefer balloon fitted or a Ford.

"Flapper," Odu.—(got us beat now).—Q: Confidentially, how old is Uncle George? A.: It just depends. Anything from 18 to 80. In your case about 27.

"Seafarer," Vladivostok.—Q: Where and when did S.O.S. originate? A.: In the State of New York, the morning after the night it went dry.

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Esperanto News

Official Recognition Given.

Probably one of the most important decisions concerning Esperanto that has been made to date was arrived at in Paris towards the end of last year. The Universal Telegraph Union, comprising all the civilised nations of the world, on October 29, 1925, officially declared Esperanto a "plain language" in accordance with a recommendation received from the League of Nations.

This conference, which was the first since the outbreak of the Great War, had accumulated an enormous agenda, necessitating daily sittings for over two months. It was at one of these that the question of admitting Esperanto as one of the regular languages was brought forward. Latin, in its limited capacity as an "international language," had previously enjoyed this privilege, and paragraph 3 in article 7 of the Universal Telegraph Union's regulations has been amended so that it now includes Esperanto.

Esperanto Recognised.

What does this decision signify? It means that the importance of Esperanto has been recognised, giving it the same status as other languages and lifting it out of its previous category as a "code." It means that the tariff applying to those languages permitted by the Telegraph Union for international use also applies to Esperanto. And it further means that Esperanto is sufficiently used to justify this inclusion.

From the writer's experience a considerable saving can be effected by cabling or telegraphing in Esperanto, as the grammatical construction of this synthetic language is so arranged as to eliminate ambiguous phrasing and reduce sentences to a minimum of words. This alone should assure its wider acceptance.

During a debate a proposal to include Ido (one

of the many so-called "improved Esperantos") was rejected, thereby proving the futility of having a multiplicity of international languages.

It may now be expected that Australia will follow the example set by other countries, notably Great Britain, by permitting the use of Esperanto within its confines at ordinary rates, and not only externally, as it will be bound to in compliance with the Universal Telegraph Union's resolution.



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And I know why the grid leaks and that sort of rot,
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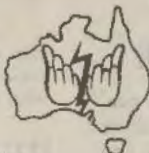


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Institute's Transmitter.

The Institute's transmitter is now located permanently at Station 2CX, and the work for which it has been designed has been commenced. The work of the Traffic Bureau is now controlled from Station A-2WI, and the official inter-division business of the Institute is also conducted on regular schedules. It is the intention of the Institute at an early date to use its transmitter for other purposes, with the object of giving members of the Institute every benefit from their transmitter. One of the intended uses is the regular transmission of items of interest by radiophone, which will be broadcast for the benefit of members. It is also intended to give a number of technical lectures and other items, such as meeting notices, which would interest members. These transmissions will take place at regular intervals on a wavelength of 100 metres. More details of this service will be published at a later date when the arrangements have been finalised.

With regard to the standard frequency transmission signals, a complete schedule on a much enlarged scale is being drawn up, and it is hoped to shortly cover a wider band of wavelengths. Use will also be made for 2WI in connection with the plans of the New South Wales Division of the Institute for carrying out its programme of research and experimental work. Any suggestions from members of

this division as to any use to which the transmitter may be put in order to further serve members of the Institute will be appreciated, and will be placed before the Executive Council for careful consideration. Further particulars of these services can be obtained from the Organiser of the Research Section of the Bureau, Mr. H. A. Stowe, Box 3120, G.P.O., Sydney.

Interstate Visitors.

We have been glad to welcome at Institute Headquarters two visitors from Tasmania, Mr. H. Caye (7BO) and Mr. A. B. Smith (7AG). These gentlemen have been over on a brief visit, but their presence has been none the less welcome at Headquarters.

Monthly General Meeting.

The next monthly general meeting of the New South Wales Division of the Institute will be held at the Royal Society's Hall, 5 Elizabeth Street, Sydney, on Thursday next, January 21, at 7.45 p.m. On this occasion Mr. C. W. Slade will deliver a lecture on "Wireless in Submarines." Members should particularly note the date of the meeting and make a special effort to be present on this occasion.

Agreement Forms.

The following additional agreement forms have come to hand—R. H. Fry (2KC) and Mr. Fanker (2HS).

Round the Clubs

The asterisk denotes clubs affiliated with the Wireless Institute of Australia (N.S.W. Division).

THE LIECHHARDT AND DISTRICT RADIO SOCIETY.* (Licensed Experimental Transmitting Station 2LB.)

On Tuesday, January 5, members of the Liechhardt and District Radio Society held their 38th monthly business meeting at the clubroom, 176 Johnston Street, Annandale.

The attendance was excellent, and another new member was elected during the course of the evening. The main business, the delivery of the first lecture of Syllabus No. 3, was in the capable hands of Mr. A. E. Buckley, who had chosen for his subject "The Four Electrode Valve," and the lecture proved most interesting and instructive to all present. Mr. Buckley drew upon the blackboard a number of circuits suitable for the incorporation of the four electrode valve, and amongst other things he claimed that the reproduction of speech and music obtained by the use of this particular tube was remarkably pure as compared with that obtained by means of the ordinary three electrode valve. At the conclusion of the lecture a number of questions were replied to, after which a hearty vote of thanks was carried by acclamation.

Other business dealt with at the meeting included the resignation of Mr. W. J. Zeeb from the position of Hon. Secretary, this on account of the fact that he is leaving for Melbourne at an early date. The matter of the appointment of a successor was also dealt with, and resulted in Mr. J. G. Arkoll, of 148 Hereford Street, Forest Lodge, being elected to fill the vacancy, with Mr. J. H. Coventry of the same address, as Assistant Hon. Secretary. Therefore, all future communications relative to the society's business should be addressed to Mr. Arkoll, as also should any inquiries regarding the activities of the society.

Mention should be made of the fact that Mr. L. O. Johnson, Hon. Secretary of the Dubbo Radio Club, was

present at the meeting, and an interested spectator throughout its proceedings.

Next Tuesday evening the society will hold its 158th general meeting, when the third lecture of Syllabus No. 3 will be delivered by Mr. Arkoll. The subject on this occasion will be "Aerial Mast Designing," and as Mr. Arkoll has made a special study of this particular phase of radio a very interesting lecture is anticipated. The fourth lecture, under the title "A Three Coil Low-Loss Receiver," will follow on January 23, and Mr. J. H. Coventry will be the lecturer on this occasion.

WIRELESS SOCIETY OF NEWCASTLE.*

On Tuesday night, January 5, the Wireless Society of Newcastle held its weekly meeting at 49 Everton Street, Hamilton.

Mr. Swain continued the series of lectures on "The Amateur's Proficiency Certificate," and discussed condensers and inductances.

The weather was very boisterous; nevertheless, the usual good attendance was noticed, and it was a very good beginning for the new year.

The club's transmitter is now on the air, working under the call sign of 2SO, working C.W. on 90 metre band and Fone on 210 metres. Reports on transmission would be greatly appreciated, and all reports will be acknowledged. The society takes this opportunity of wishing the wireless clubs and amateurs in general a prosperous new year and success in all their activities.

SOUTH RANDWICK AND DISTRICT RADIO CLUB.*

Despite the customary bad weather, there was a very fair attendance when the members of the South Randwick and District Radio Club held their usual weekly meeting at "Kialla," See Street, South Kensington, on Monday, 4th January.

After several members had given an account of their wireless activities during the festive season, formal business was attended to and soon disposed of. The drawing up of a new syllabus of lectures and demonstrations was then

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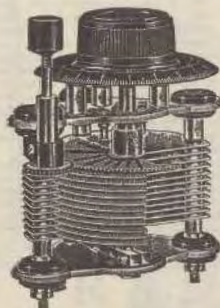
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discussed, and from present appearances this promises to be a very attractive list. Indeed, a member was called upon to demonstrate an "N.K." loud speaker and to explain its method of operation. The "N.K." is a new speaker of German origin, which has not so far appeared on the local market, and which differs very considerably from the more usual types. An ordinary speaker unit is placed behind a small cone funnel, and the sound waves on travelling up this cone are deflected by means of a bowl placed over its mouth back into a second and larger bowl.

The whole of the speaker is constructed of inlaid rose-wood, and at the base it rests on three small ebony globes or spheres. Its appearance is very good, and, as one member remarked, "It suggests an elegant bowl trophy!" On actual trial it proved itself superior to the speaker of the ordinary type that it was tested against, giving much less directional effect and a much more pleasing tone. Everyone was much impressed with its possibilities, and some experimental work along similar lines by club members can be forecasted.

Monday, January 15, is to be a "Demonstration of Apparatus and Questions" Night. Most members seem to have added considerably to their equipment during the holiday period (good old Santa Claus!), and quite an imposing display of apparatus is assured. The list of promised exhibits includes a crystal detector with resistance antenna, a low-loss receiver incorporating a home-made low-loss straight line frequency condenser, and several other interesting pieces of apparatus.

Visitors and intending new members will be heartily welcomed. Many inquiries have been received by the Morse Class and A.O.P. Certificate Class, and a good enrolment is certain. Inquiries re membership and club matters should be addressed to Mr. M. E. Southerwood, 62 Astrolabe Road, Doreville. Information may also be obtained by ringing Randwick 2994.

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CRUYDON RADIO CLUB, 2YR.*

The initial meeting of the above club for 1926 was held at the club rooms, "Rockleigh," Lang Street, Craydon, at 7.30 p.m. on January 9.

The President, Mr. C. W. Slade, occupied the chair, and although the attendance was not exceptional, due no doubt to some of the members getting tongue-tied or look-jawed telling fish yarns, the meeting had much pleasure in welcoming back to the gang that long-lost soul, Mr. Cropper, who it was thought had contracted operator's twitch trying to tune BUNK on his new Super-Catadyne.

After the members had exchanged their holiday experiences (copied, no doubt from "Smith's"), a very spirited discussion arose as to what extent the club should assist broadcast listeners without infringing on the sacred preserves of the radio dealers. As no decision could be arrived at, it was decided to continue the discussion next meeting.

The club had also the honour of a visit by two members of the Leichhardt Radio Club and one member of the Concord Club, who were heartily welcomed.

The meeting closed at 10.15 p.m., and the members left with the feeling that a very enjoyable evening had marked the opening of the club activities for 1926.

All inquiries regarding the club's activities addressed as above will be promptly attended to.



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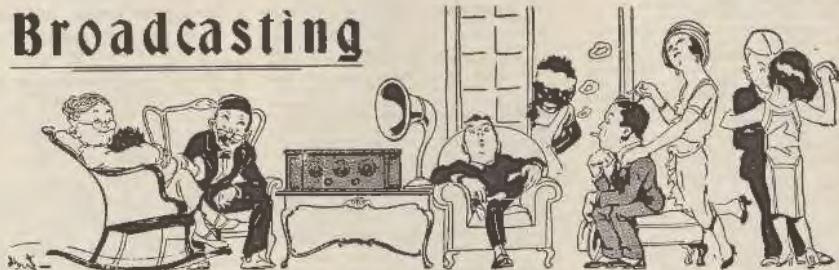
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4QG

QUEENSLAND RADIO SERVICE.

Wavelength, 385 metres.

FRIDAY, JANUARY 15.

Midday Session.

12.55—Tune-in 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; "Daily Standard" news service. Close down.

Afternoon Session.

2.55—Tune-in signal.

3—By courtesy of the directors of Haymarket Theatres Ltd., an hour's programme of music played by the Tivoli Operatic Orchestra of 30 performers, under the baton of Mr. G. Groves, will be relayed from the Tivoli Theatre and broadcast by Station 4QG.

4—Close down.

Night Session.

8—Tune-in to the Tivoli Theatre.
8.5—From the Studio: Tenor solo, "Rose of my Heart" (Lohr), Signor Corti; corset solo, "Archduchess," Mr. J. W. Burgomeister; soprano solo, "Annie Laurie," Mrs. Robert Bell; instrumental number, waltz, "Just a Kiss from You" (Green), the Studio Quartette; duet, "Carry me back to my Carolina Home" (Silver-Davies), Irving and Knowles (aerialian vocation).

8.30—From the Tivoli Theatre: Twenty minutes' music by the Tivoli Operatic Orchestra.

8.50—From the Studio: Weather information officially supplied by the Commonwealth Weather Bureau.

8.55—Announcements.

9—Instrumental number, "Spring Flowers" (Wood), the Studio Quartette; aerialian selection, "Mammy's Lullaby" (Spotts), the Criterion Male Quartette; soprano solo, "There's a Land" (Allitsen), Mrs. Robert Bell; corset solo, "Sunshine of Your Smile" (Rey), Mr. J. W. Burgomeister; tenor solo, "I Hid my Love" (D'Hardelot), Signor Corti; piano-forte solo, selected, Mrs. Hilda Woolmer; bass notes, (a) "A Chip of the Old Block" (Squire), (b) "The Windmill" (Nelson), Mr. Norman A. Cooling; aerialian selections, Hawaiian numbers, (a) "Honolulu Bay Waltz" (Ferrara), (b) "Hawaian Twilight" (Sherwood), played by the Ferrara & Franchini Duet; instrumental number, "Phyllis" (Deppen), the Studio Quartette.

9.55—The "Daily Mail" news service. Close down.

SATURDAY, JANUARY 16.

No midday transmission.

The Children's Hour: A children's bedtime story session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, with transmission in being effected under temporary conditions, it is held three times weekly.

6.25—Tune-in signal.

6.30—The Children's Hour. Nursery rhymes and music; bedtime stories by "The Sandman."

7.15—Close down.

Night Session.

8—Tune-in to the Tivoli Theatre.

8.5—From the Studio: Soprano solo, "Bird of Love Divine" (Wood), Miss Lolita Richter; abscantionary number, "The Bush Fire," Miss Beryl Holmes; baritone solo, "Mother Macdore" (Olson and Ball), Mr. R. W. Dinning; aerialian selection, band number, "Raymond Overture" (Thomas); soprano solo, "I Know a Lovely Garden" (D'Hardelot), Miss Lolita Richter; violin solo, "The Rosary" (Nevis), Mr. H. Scott MacCallum; baritone solo, "Friend o' Mine" (Sanderson), Mr. R. W. Dinning; contralto solo, "Love's Old Sweet Song" (Mellory), with violin obligato, Miss Vera Parker; abscantionary number, "The Last Token" (Eton), Miss Beryl Holmes; contralto solo, "Salam" (Lang), Miss Vera Parker; piano-forte solo, "Valse Parisienne" (Lee S. Roberts), Mrs. Hilda Woolmer.

8.50—Weather information officially supplied by the Commonwealth Weather Bureau.

8.55—Announcements.

9—From Lennon's Hall: By courtesy of the proprietors of Lennon's Hall an hour and a half's dance music by Miss May Doherty's Vice-Regal Orchestra will be relayed.

10.20—From the Studio: The "Sunday Mail" news service.

SUNDAY, JANUARY 17.

Morning Session.

The complete morning service from the Albert Street Methodist Church will be relayed by Station 4QG.

10.55—Tune-in signal.

11—Morning service from Albert Street Methodist Church. Organist & choir-master, Mr. A. H. Littler; preacher, the Rev. Dr. G. E. Rowe.

12.30—Close down.

Afternoon Session.

The band concert in the Brisbane Botanical Gardens will be relayed by 4QG.

3.10—Tune-in signal.

3.15—Band concert.

4.30—Close down.

Night Session.

The complete evening service will be relayed from the Albert Street Methodist Church.

7—Tune-in signal.

7.5—Evening service. Preacher, the Rev. Dr. G. E. Rowe.

8.30—Benediction.

Band Concert: At the conclusion of the church service, the band concert provided in Wickham Park by Greater Brisbane Municipal Concert Band, under the leadership of Mr. F. Jackson, will be relayed. The band will play the following numbers: Overture to "Oberon" (Weber); American sketch, "By the Swanee River" a coon's dream of the past (M. J. Jackson); song, "Love Sends a Little Gift of Roses" (Openwick), Mrs. G. P. Thomas; selection from "The Martyrs" (Donizetti); popular numbers, selected; song, "Mother in Ireland" (Griffin), Mrs. G. P. Thomas; selection from "H.M.S. Pinafore" (Sullivan). Close down.

MONDAY, JANUARY 18.

Midday Session.

12.55—Tune-in 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; "Daily Standard" news service. Close down.

Afternoon Session.

2.55—Tune-in signal.

3—By courtesy of the directors of Haymarket Theatres Ltd. an hour's programme of music played by the Tivoli Operatic Orchestra of 30 performers, under the baton of Mr. G. Groves, will be relayed from the Tivoli Theatre and broadcast by Station 4QG.

4—Close down.

The Children's Hour.

A children's bedtime story session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while transmission is being effected under temporary conditions, it is held three times weekly.

6.25—Tune-in signal.

6.30—The Children's Hour. Nursery rhymes and music; bedtime stories by "The Sandman."

7.15—Close down.

Night Session.

- 8.—Tune-in to the Tivoli Theatre.
 8.5—From the Studio: Portion of to-night's programme will be provided by the Federal Band's Special Radio Party. Soprano, contralto solo, "Dream of Love"; Messrs. Davis and Wilkinson (Federal Band); contralto solo, "My Treasure" (I. Trevalan), Mrs. Chas. Willey; lecturette, the Motorists' Corner, "Knocks and How to Remedy Them," Mr. W. J. Donohue; cornet duet, "Home to our Mountainside" (Yardi), Messrs. Davis and Dauth (Federal Band); soprano solo, "La Serenata" (Tosti), Miss Millicent Baker; euphonium solo, "Loch Lomond" (Stevens), Mr. V. Ball (Federal Band); contralto solo, "Sincere" (Emilia Clarke), Mrs. Chas. Willey; trombone and cornet duet, "Down the Vale" (Moir), Messrs. Ross and Dauth (Federal Band); soprano solo, "Cara Mia" (Kennedy Russell), Miss Millicent Baker; quartette, "Scotia" (Round), Federal Band Party.

9.15—Weather information officially supplied by the Commonwealth Weather Bureau.

9.15—Announcements.

- 9.20—Soprano solo, "Ave Maria" from "Cavalleria Rusticana" (Mascagni), Mrs. Robt. Bell; euphonium number, "Mr. D'Alto" (Leo T. Crake); baritone solo, "I Look Into Your Garden" (J. L. Wood), Mr. D. Bradford; duo art selection, "Barmecide" (Offenbach), by request; tenor solo, "I'll sing thee Songs of Araby" (E. Clay), Mr. W. Stebbins; euphonium number, "A Child of Grandeur" (Mills); 9.30—Tutti; soprano solo, "Vilja" (Lohar), Mrs. Robt. Bell; group of banjo numbers by Mr. N. Gould; baritone solo, "Castilian Lament" (del Rio), Mr. D. Bradford; group of banjo numbers by Mr. N. Gould; tenor solo, "Waiting" (Leo T. Crake), Mr. W. Stebbins.
 9.55—"The Daily Mail" news service.
 10—Close down.

TUESDAY, JANUARY 19.

Midday Session.

- 12.55—Tune-in 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; "Daily Standard" news service. Close down.

Night Session.

- 8.—Tune-in to the Tivoli Theatre.
 8.5—From the Studio: Lecturette, "Photography," the 11th of a series by Mr. F. L. South, manager Kodaks Ltd.; soprano solo, "A Pearl" (Banning), Miss Victoria Brown; cornet number, "Banquet" (D'Hardest), Mr. J. W. Burgemeister; tenor solo, "I Hid My Love" (D'Hardest), Signor Corti; aeolian selections, orchestral numbers. (a) Clog Dance—"Handel in the Strand" (Granger). (b) "Shepherds, Hey" (Granger), played by the Ancient Symphonie Orchestra. Baritone solo, "At Evening" (Cascagnon), Mr. L. R. Little; instrumental number, selections from "Wildflower," the Studio Quartette.
 8.55—Weather information officially supplied by the Commonwealth Weather Bureau.
 9.—Announcements.
 9.15—Instrumental number, selections from "Lalo Time" (Schubert), the Studio Quartette; soprano solo, "Lovely Spring" (Colman), Miss Victoria Brown; cornet solo, polka brill

- hante, "Padore" (Hartman), Mr. J. W. Burgemeister; tenor solo, "In the Garden of Tomorrow" (Deppen), Signor Corti; flute solo, "Serenade" (Pieran), Mr. B. Kelly; contralto solo, "Barcel to Summer" (Johnson), Miss Vera Parker; musical monologue, "When a Maid Marries," Miss Neta Cross; aeolian selection, band number, "Songs of the Sea"; baritone solo, "Awake" (Fellische), Mr. L. R. Little; duo art selection, by request, "Unrequited Love" (Lincke); musical monologue, "He, She and They," Miss Neta Cross; contralto solo, "When my Ships Come Sailing Home" (Dorel), Miss Vera Parker.
 9.55—"The Daily Mail" news service.
 10—Close down.

WEDNESDAY, JANUARY 20.

Midday Session.

- 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; "Daily Standard" news service. Close down.

Afternoon Session.

- 2.55—Tune-in signal.
 3.—By courtesy of the directors of Haymarket Theatres Ltd., an hour's programme of music played by the Tivoli Operatic Orchestra of 20 performers, under the baton of Mr. G. Groves, will be relayed from the Tivoli Theatre and broadcast from Station 10Q.
 4—Close down.

The Children's Hour.

- A children's bedtime story session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while transmission is being effected under temporary conditions, it is held three times weekly.

- 4.25—Tune-in signal.
 4.30—"The Children's Hour." Nursery rhymes and music; bedtime stories by "Little Miss Brisbane."
 7.15—Close down.

Night Session.

- 8.—Tune-in to the Tivoli Theatre.
 8.5—Lecturette, "Organised Distribution of Farm Products," the second of a series by Mr. R. Wight; soprano solo, "Four Butterflies" (Raymond Hebbell), Miss Eileen McLennan; instrumental number for trombone, "Pator Pan" (King and Henderson), the Studio Quartette; baritone solo, "Macushla" (MacMurrugh), Mr. Fred Homer; group of banjo numbers by Mr. N. Gould; aeolian selection, soprano solo, "La Rose de la Gentile," song by Miss Evelyn Seney; Hawaiian instrumentalists, "Just a Smile," the Kalua Trio.
 8.45—Picture show news.
 8.60—Weather information officially supplied by the Commonwealth Weather Bureau.
 8.65—Announcements.
 9.—Soprano solo, "But Why" (Knight-Logan), Miss Eileen McLennan; Hawaiian instrumentalists, "Aloha Oe," the Kalua Trio; aeolian selection, musical comedy numbers, (a) "Fellow Yeating" (G.) "Ezzara's Desire," sung by Miss Gladys Murrice; group of banjo music by Mr. N. Gould; baritone solo, "Requiem" (Homer), Mr. Fred Homer; Hawaiian instrumentalists, "Kalua," the Kalua Trio.
 9.25—From the Tivoli Theatre: Half an hour's music by the Tivoli Operatic Orchestra.

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

THURSDAY, JANUARY 21.

- Midday Session.
 12.55—Tune-in 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; "Daily Standard" news service. Close down.

Night Session.

- 8.—Tune-in to the Tivoli Theatre.
 8.5—From the Studio: Vocal duet, "Amoroso" (Halm-Eltinge), Messrs. J. Trevisio and N. Brown; aeolian selection, by request, "The Bird and the Sixpenny"; ten minutes of humour by Mr. Victor Gauriot; tenor solo, "Roses, Roses" (Froberg), Mr. J. Trevisio; English concertina, imitation of church bells and organ, Mr. E. Downey; baritone solo, "The Land of Yesterday" (George Rex), Mr. N. Brown; English concertina, "La Serenata" (Braza), Mr. E. Downey; tenor solo, "The Blind Ploughman" (Clarke), Mr. J. Trevisio; baritone solo, "Two Eyes of Gray" (Daisy McFadden), Mr. N. Brown.
 9.—Weather information officially supplied by the Commonwealth Weather Bureau.

- 9.5—Announcements.
 9.10—From the Centennial Hall: By courtesy of the lessee, three-quarters of an hour's dances made by the Centennial Hall Orchestra will be relayed.
 9.55—From the Studio: The "Daily Mail" news service.
 10—Close down.

2KY

WEEKLY BROADCASTING PROGRAMME.

TRADES HALL.

Call Sign, 2KY. Wavelength, 280 metres.

FRIDAY, JANUARY 15.

Afternoon Session.

- 2.30—A varied vocal and musical programme will be transmitted, closing down at 4.45 p.m.
 Children's Hour.
 6.30—"The Man in the Moon," Evening Session.
 7.45—Rena's Viola Dance Orchestra; Miss Bernice Dohal, L.L.C.M., pianist; Mr. Frank Rodman, monologues; and others to be announced.

SATURDAY, JANUARY 16.

Evening Session.

- 7.45—Latest news items; Mrs. Draper, soprano; Mrs. Cannon, pianist; Herbert Hoover, humorist; and others to be announced.

MONDAY, JANUARY 18.

Afternoon Session.

- 2.00—A varied vocal and musical programme will be transmitted, closing down at 4.45 p.m.
 Children's Hour.
 6.30—"The Man in the Moon," Evening Session.
 7.45—Latest news items; Miss Amy Ruwald, entertainer; Miss Nellie Graves, mezzo-soprano; Miss D. Johnston, soprano; Mr. W. Sornin, tenor;

Mr. Walter Faulkner, musical burlesque; Mr. J. Gray, baritone; Miss Wood, soprano; Mr. R. Webster, baritone; Delectable, "My Visit to Russia," Mr. J. S. Garden; and others to be announced.

TUESDAY, JANUARY 19.

- 2.30—A varied vocal and musical programme will be transmitted, closing down at 4.45 p.m.
- 6.30—"The Man in the Moon." Children's Hour.
- 7.45—Radio Lecture, Mr. B. Whitaker; Aaron Trio, instrumentalists; Mr. McKillop, tramway comedian; Mr. David Bond, baritone; Miss Dornington, soprano; Miss Dean, pianiste; Mr. Don Ellis, harmonium; and others to be announced.

WEDNESDAY, JANUARY 20.

- 2.30—A varied vocal and musical programme will be transmitted, closing down at 4.45 p.m.
- 6.30—"The Man in the Moon." Children's Hour.
- 7.45—Oec. Morris and his Bluebirds' Jazz Band; Mr. A. Withington, violin solo; Miss Tibbie Smith, monologues; Miss Carroll, mezzo-soprano; and others to be announced.

THURSDAY, JANUARY 21.

- 2.30—A varied vocal and musical programme will be transmitted, closing down at 4.45 p.m.
- 6.30—"The Man in the Moon." Children's Hour.
- 7.45—Ken Hawkins and his Synopators; Mrs. Carter, violin solo; Miss Beekie Jones, contralto; and others to be announced.

5CL

CENTRAL BROADCASTERS LTD.
Call Sign, 5CL. Wavelength, 365 metres. Input, 5 K.W.

FRIDAY, JANUARY 15.

- 11.30—Stock duo Art and Arolan Vocalian recitals.
- 12.15—News and Cable Service.
- 12.30—The 5CL Studio Orchestra will play: Selection: "Mad of the Mountains" (Fraser Smeaton); cornet solo: "Ode Fleeting Hour" (Jacobs Bond); fox trot: "Let It Rain" (Dyson); Moroccan: "Sala D'Amour" (Hegart); waltz: "Dep. de Frolle" (Hiller); waltz: "The Morning after" (Whiting); suite: "Imaginary Ballet" (Coleridge Taylor); oriental: "Hindustan" (Wallace); finale selection: "Cavalier Rusticness" (Mansueti).
- 1.55—S. C. Ward & Co.'s Stock Exchange Intelligence and official weather synopsis.
- Afternoon Session:
- 3—Relay from Maple Leaf Cafe: Orchestral numbers.
- 3.45—Broadcast from Studio: Serial Story.
- 4—Broadcast from Acadia Cafe: Orchestral numbers.
- 4.55—Stock Exchange reports and general information.
- Evening Session:
- 6.30—Bedtime Stories for the Children.
- 7.30—Stock Exchange and Market reports.
- 7.40—Sporting talk by "Old Timer."
- 8—Post Office Chimes.
- 8.2—Pavilion Theatre and concert numbers from Studio.
- 9—Post Office Chimes.

- 9.1—Weather report.
- 9.3—Cavillon Theatre.
- 10—Post Office Chimes.
- 10.1—Pavilion Theatre.
- 10.30—Station announcements. Tomorrow's programme. National Anthem. Good night.

SATURDAY, JANUARY 16.

- Morning Session:
- 10.30—The 5CL Studio Orchestra will play: Overture: "Past and Present" (Van Suppel); collo solo: "Le Sair" (Gomard); fox trot: "Sahara" (Nehuba); reverie: "Even Song" (Hyford); waltz: "Three Fours" (Coleridge Taylor); animal: "Lampooner" (Froderick Hall); selection: "The Idiac Double" (Cavillier); instrumental trio: "Lethisoid" (Kiesler); finale, arranged: "Savor Scottish Melody" (Sonetti).
- 11.45—S. C. Ward & Co.'s Stock Exchange Intelligence and official weather synopsis. Announcements. Close down.
- Afternoon Session:
- Stock duo Art and Arolan Vocalian recitals.
- Evening Session:
- 6.30—Bedtime Stories for the Children.
- 7.30—Market Reports and sporting results.
- 7.40—Results of Cricket, Racing and other sporting.
- 8—Post Office Chimes.
- 8.1—Classical and Operatic concert under direction of Miss Linda Walf.
- 8.30—Mr. Allen Hittaler: Gems from his repertoire.
- 9—Post Office Chimes.
- 9.1—Weather Report.
- 9.3—Studio Concert, continued.
- 10—Post Office Chimes.
- 10.1—Studio Concert, continued.
- 10.30—Station announcements. Tomorrow's programme. National Anthem. Good night.

SUNDAY, JANUARY 17.

- Morning Session:
- 11—Divine Service from Rose Park Congregational Church.
- Evening Session:
- 6.30—Bedtime Stories for the Children.
- 7—Divine Service: Pine Street Methodist Church.
- 8.30—Studio Orchestra. Station announcements. Tomorrow's programme. National Anthem. Good night.

MONDAY, JANUARY 18.

- Morning Session:
- 11.30—Stock duo Art and Arolan Vocalian recitals.
- 12.15—News and Cable Service.
- 12.30—The 5CL Studio Orchestra will play: Selection: "Madame" (Pascini); violin solo: "Andantino" (Lernati); fox trot: "Peter Pan"; an idyll: "Summer Nights" (Roberts); lower solo: "Benjoni"; studio selection: "Air" (Bach); cornet solo: "Goodbye to You"; waltz: "Amour" (Hiller); finale, selection: "Gipsy Love" (Franz Lehar).
- 1.55—S. C. Ward & Co.'s Stock Exchange Intelligence and official weather synopsis.
- Afternoon Session:
- 3—Relay from Maple Leaf Cafe: Orchestral numbers.
- 3.45—Broadcast from Studio: Serial Story.
- 4—Broadcast from Acadia Cafe: Orchestral numbers.
- 4.55—Stock Exchange reports and general information.
- Evening Session:
- 6.30—Bedtime Stories for the Children.
- 7.30—Stock Exchange and Market Reports.
- 7.40—Swimming talk by Mr. Boatwright.
- 8—Post Office Chimes.
- 8.1—Special Ban Night: Minkum Band.
- 8.20—Humorous talk by "Teukler."
- 9—Post Office Chimes.
- 9.1—Weather Reports.
- 9.3—Band items, continued.
- 10—Post Office Chimes.
- 10.30—Station announcements. Tomorrow's programme. National Anthem. Good night.

TUESDAY, JANUARY 19.

- Morning Session:
- 11.30—Stock duo Art and Arolan Vocalian recitals.
- 12.15—News and Cable Service.
- 12.30—The 5CL Studio Orchestra will play: selection: "Our Nell" (Suzann Novelle); waltz: "Adieu" (Schubert); instrumental trio: "Noma" (Bellini); fox trot: "Yearning"; serenade: "Indian Dawn" (Zemecnik); selection: "Romeo at Juliet" (Gomard); waltz: "Hawaiian Love Note" (Vandercook); Polish dance: (Schurwonka); finale, selection: "Gopak" (Jonce).
- 1.55—S. C. Ward & Co.'s Stock Exchange Intelligence and official weather synopsis.
- Afternoon Session:
- 3—Relay from Maple Leaf Cafe: Orchestral numbers.
- 3.45—Broadcast from Studio: Serial Story.
- 4—Broadcast from Acadia Cafe: Orchestral numbers.
- 4.55—Stock Exchange reports and general information.
- Evening Session:
- 6.30—Bedtime Stories for the Children.
- 7.30—Stock Exchange and Market reports.
- 7.40—Physical Culture Talk, Mr. Noel H. Hubble.
- 8—Post Office Chimes.
- 8.2—Concert Party under direction Mrs. W. Keith Steward.
- 9—Post Office Chimes.
- 9.1—Weather reports.
- 9.3—Studio Concert, continued.
- 9.10—Radio Talk by Mr. F. W. J. Gaubez.
- 10—Post Office Chimes.
- 10.1—Studio Concert, continued.
- 10.30—Station announcements. Tomorrow's programme. National Anthem. Good night.

WEDNESDAY, JANUARY 20.

- Morning Session:
- 11.30—Stock duo Art and Arolan Vocalian recitals.
- 12.15—News and Cable Service.
- 12.30—The 5CL Studio Orchestra will play: Overture to "Martha" (Flotow); violin solo: "Cannonata" (D'Ambrosio); fox trot: "Garden of Tomorrow" (Dreppin); waltz: "Vision D'Amour" (Hyford); suite: "Indian Love Lyric" (Woodford Finlon); chanson trio: (Tschukovsky); shepherds dance: Henry VIII. (Gomard); cornet solo: "Au Feu D'Amour" (Silviani); finale, selection: "High Kinks" (Frim).
- 1.55—S. C. Ward & Co.'s Stock Exchange Intelligence and official weather synopsis.
- Afternoon Session:
- 3—Relay from Maple Leaf Cafe. Orchestral numbers.
- 3.45—Broadcast from Studio: Serial Story.
- 4—Broadcast from Acadia Cafe: Orchestral numbers.
- 4.55—Stock Exchange reports and general information.
- Evening Session:
- 6.30—Bedtime Stories for the Children.
- 7.30—Stock Exchange and Market Reports.
- 7.40—Boy Scouts' Concert.
- 8—Post Office Chimes.
- 8.2—Studio Concert under direction of Miss Penlandrick.
- 9—Post Office Chimes.
- 9.1—Weather reports.
- 9.3—Studio Concert, continued.
- 10—Post Office Chimes.
- 10.1—Studio Concert, continued.
- 10.30—Station announcements. Tomorrow's programme. National Anthem. Good night.

THURSDAY, JANUARY 21.

- Morning Session:
- 11.30—Stock duo Art and Arolan Vocalian recitals.
- 12.15—News and Cable Service.
- 12.30—The 5CL Studio Orchestra will play: Overture: "Nocturne Lights" (Weid); collo solo: "Simple Ave" (Thorne); fox trot: "Rose Marie" (Rudolf Frim); instrumental trio: "Modulation" (Gomard); waltz: "Desert Caravan" (Zemecnik); selection: "Felix" (Gomard); reverie: "Mood Pea-

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- sive" (Applefield); waltz "Mississippi Rip-ple" (Earl); waltz "No, no, Nectie" (Youmans).
- 1.35—S. C. Ward & Co.'s Stock Exchange Intelligence and official weather synopsis.
- Afternoon Session
- 3—Relay from Maple Leaf Cafe, Orchestral numbers.
- 3.45—Broadcast from Studio: Social Story.
- 4—Broadcast from Arcadia Cafe: Orchestral numbers.
- 4.55—Stock Exchange reports and general information.
- Evening Session.
- 6.30 Bedtime Stories for the Children.
- 7.30—Stock Exchange and Market Reports.
- 7.40—Talk on Poultry Raising by Mr. A. M. Whittenbury.
- 8—Post office Chimes.
- 8.2—Hokan's Band at Studio.
- 8.30—A special Health talk.
- 8.45—Band, continued.
- 9—Post office Chimes.
- 9.2—Band, continued.
- 9.30—Station announcements. To-morrow's programme: National Anthem; Good night.

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FRIDAY, JANUARY 15.

Afternoon Session.

- 2—G.P.O. clock and chimes; weather report and social notes from "The Sun."
- 3.15—Music from the Studio.
- 3.30—G.P.O. clock and chimes; a talk

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SYDNEY.

- on "Modern Psychology" by Mr. J. M. Prentice.
- 5.45—Music from the Studio.
- 4—G.P.O. clock and chimes; music from the Studio.
- 4.10—G.P.O. clock and chimes; serial story entitled "The Treasure of Ho."
- 4.45—Music from the Studio.
- 4.55—Late market reports by courtesy of "Sun" Newspapers.
- 5—G.P.O. clock and chimes; "Sun" news service.
- 5.15—G.P.O. clock and chimes. Close down.
- Evening Session.
- 6—G.P.O. clock and chimes; Pavilion Dinner Orchestra, under the direction of Mr. Cee Morrison.
- 6.30—Sporting resume from "Sun" Newspapers; Uncle George and the kiddies.
- 7.45—Late stock, hides and market reports by courtesy of Pitt, Son and Badgery.
- 7.50—Close down.
- Evening Session.
- Popular concert from the Studio, featuring Edith Dickerson, of the Cheero Girls, songs at the piano; Brass Quartet; Henrich's Band, contrafo.
- round the world travogue by Mr. J. M. Prentice, O.C.B., C.D.E.G.; Mr. Morgan will speak on "Motoring."

SATURDAY, JANUARY 16.

Afternoon Session.

- 2—G.P.O. clock and chimes; special sporting information broadcast direct from "Sun" office; music from the Studio.
- 5.15—G.P.O. clock and chimes. Close down.
- Evening Session.
- 6—G.P.O. clock and chimes; Pavilion Dinner Orchestra, under the direction of Mr. Cee Morrison.
- 6.30—Sporting resume from "Sun" Newspapers; Uncle George and the kiddies.
- 7.30—A talk to the kiddies by "Bring-a."
- 7.45—A talk on "Roads."

Evening Session.

- Variety programme from the Studio, including Honolulu Duo in steel guitar selections; Elliott and Edwards in harmony numbers; Loyal Hine, jazz pianist; Millie Hagtes, soprano. During the evening Mr. Norman Campbell will speak on "Plays and Players, Past and Present," and Bring-a will chat about the "Aborigines."

SUNDAY, JANUARY 17.

- 11—Children's service broadcast from Congregational Church, Newtown, Minister, Rev. Meurns Massey.
- 3.30—Organ recital broadcast from Chalmers Street Presbyterian Church, Minister, Rev. D. F. Brandt.
- 7.15—Service broadcast from Congregational Church, Newtown, Minister, Rev. Meurns Massey.
- 3.30—Organ recital broadcast from Hippodrome Theatre.

MONDAY, JANUARY 18.

Afternoon Session.

- 3—G.P.O. clock and chimes; weather report and social notes from the "Sun."
- 3.15—David Jones' Tea Room Trio.
- 3.30—G.P.O. clock and chimes; a talk on "A Course in English Literature" by Mr. J. M. Prentice.
- 3.45—Music from the Studio.
- 4—G.P.O. clock and chimes; music from the Studio.
- 4.30—G.P.O. clock and chimes; serial story entitled "The Treasure of Ho."

- 4.17—Music from the Studio.
- 4.55—Late market reports from "Sun."
- 5—G.P.O. clock and chimes; "Sun" news service.
- 5.15—G.P.O. clock and chimes. Close down.

Evening Session.

- 4—G.P.O. clock and chimes; Pavilion Dinner Orchestra, under the direction of Mr. Cee Morrison.
- 6.30—Sporting Resume from "Sun" Newspapers; Uncle Jack and the kiddies.
- 7.30—"What's On"—a guide to the visits and citizens of Sydney.
- 7.45—Late stock, hides and market reports by courtesy of Pitt, Son and Badgery.
- 7.50—Close down.

Evening Session.

- Ambassadors' Salon Quartet, under the direction of Mr. Claude McGlynn. Classical concert from the Studio, featuring Mr. Leslie Herford. Dance music until midnight supplied by Ambassadors' Jazz Orchestra, under the direction of Mr. Hammett. At 8.30 Mr. Fraser Anderson will speak on "Astrological Aids to Character," and at 9.30 Mr. Maurice will continue his talks on "Memory Culture."

TUESDAY, JANUARY 19.

Afternoon Session.

- 2—G.P.O. clock and chimes; weather reports and social notes from the "Sun."
- 3.15—Music from the Studio.
- 3.30—G.P.O. clock and chimes; special operative session.
- 3.45—Music from the Studio.
- 4—G.P.O. clock and chimes; music from the Studio.

Evening Session.

- 4.30—G.P.O. clock and chimes; serial story entitled "The Treasure of Ho."
- 4.45—Music from the Studio.
- 4.55—Late market reports from the "Sun."
- 5—G.P.O. clock and chimes; "Sun" news service.
- 5.15—G.P.O. clock and chimes. Close down.

Evening Session.

- 6—G.P.O. clock and chimes; Pavilion Dinner Orchestra, under the direction of Mr. Cee Morrison.
- 6.30—Sporting resume from "Sun" Newspapers; Uncle George and the kiddies.
- 7.45—Late stock, hides and market reports by courtesy of Pitt, Son and Badgery.
- 7.50—Close down.

Evening Session.

- Indian Love Lyric Evening broadcast from Burdickin House, Macquarie Street. From the Studio—Wm. Dalison, tenor; Myra Gillon, contrafo. During the evening Mr. Leo Baring will continue his lectures, and Mr. J. M. Prentice will speak on "Foreign Affairs" and reply to any telephone question on the subject.

WEDNESDAY, JANUARY 20.

Afternoon Session.

- 3—G.P.O. clock and chimes; weather report and social notes from the "Sun."
- 5.15—Broadcasters' Trio.
- 3—G.P.O. clock and chimes; a talk on "The Musical Outlook" by Mr. J. M. Prentice.

Evening Session.

- 3.45—Music from the Studio.
- 4—G.P.O. clock and chimes; Broadcasters' Trio.
- 4.30—G.P.O. clock and chimes; serial story entitled "The Treasure of Ho."
- 4.45—Broadcasters' Trio.
- 4.55—Late market reports from the "Sun."

5.—G.P.O. clock and chimes: "Sun" news service.
 5.15—G.P.O. clock and chimes. Close down.
 Early Evening Session.
 6.—G.P.O. clock and chimes; Pavilion Dinner Orchestra, under the direction of Mr. Cee Morrison.
 6.30—Sporting resume from "Sun" Newspapers: Uncle George and Uncle Jack with the Kiddies.
 7.30—Late stock, hides and market reports by courtesy of Pitt, Son and Badgery.
 7.45—"The Advancement of an Australian Firm"—Geo. A. Bond & Co., Ltd.
 7.50—Close down.
 Evening Session.
 From the Studio: Broadcasters' Minstrel Show, under the direction of Mr. Ward Lear. During the evening Mr. G. C. Barnes will speak on "The Romance of Buried Treasure"—"Sea Kings of Crete," and Mr. H. C. Crabb will continue his talks on "Evolution the Master Key."

THURSDAY, JANUARY 21.

Afternoon Session.
 1.—G.P.O. clock and chimes; weather report and social notes from the "Sun."
 3.15—David Jones' Tea Room Trio.
 3.30—G.P.O. clock and chimes; a talk on "Studies in English Poetry" by Mr. J. M. Prentice.
 3.45—Music from the Studio.
 4.—G.P.O. clock and chimes; David Jones' Tea Room Trio.
 4.15—Music from the Studio.
 4.30—G.P.O. clock and chimes; serial story entitled "The Treasure of Ho."
 4.45—Music from the Studio.
 4.55—Late market reports from the "Sun."
 5.—G.P.O. clock and chimes; "Sun" news service.
 5.15—Close down.
 Early Evening Session.
 6.—G.P.O. clock and chimes; Pavilion Dinner Orchestra, under the direction of Mr. Cee Morrison.
 6.30—Sporting resume from "Sun" Newspapers: Uncle Jack and the Kiddies.
 7.45—Late stock, hides and market reports by courtesy of Pitt, Son and Badgery.
 7.50—Close down.
 Evening Session.
 From the Studio—Dramatic and comedy sketches; operatic programme by Nellie Chadwick, soprano, and Clem Williams, baritone.

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FRIDAY, JANUARY 15.

Morning Session.
 12.—Time signal.
 12.1—First weather forecast.
 12.3—Events of the day.
 12.5—"The Age" news bulletin.
 12.15—Musical selections.
 12.30—Stock Exchange news.
 12.35—Market reports.
 12.40—Musical selections.
 12.50—Mail notices; shipping movements; musical selections.
 1.—The Georgian Orchestra.
 2—Close down.
 Afternoon Session.
 3.30—Musical selections.
 3.45—"Graphix" news.
 4—Time signal.

4.1—Second weather forecast.
 4.30—Mr. R. Standley Baines, of Brunings Pty. Ltd., will give the weekly gardening talk to children, "Interesting Botany."
 4.45—Musical selections.
 5—Close down.
 Evening Session.
 6.15—The Georgian Cafe Orchestra.
 7.15—The Children's Corner, by Uncle Bud.
 8.—Time signal.
 8.1—Mr. Fred Mitty, Special Racing Commissioner to 3AR, will give "Racing Anticipations."
 8.10—Mr. R. Standley Baines, weekly gardening talk, "Artificial Manures and their Uses," 2d series.
 8.25—Miss Lillian Horn, mezzo-soprano.
 8.30—Madam Rover-Easton, French talk, "Mémorques pour aider a comprendre le Français parle la terminaison—'Histoire d'un serpent.'"
 8.45—Miss Elsie Code, soprano.
 8.52—Mr. J. Lloyd Jones, entertainer, will give a selection by O. Henry.
 9.2—Miss Hazel Ralph, soprano.
 9.10—Mr. Roy Ramage, cello solos.
 9.17—Miss Lois Yathlees, mezzo-soprano.
 9.24—Miss Lillian Horn, soprano.
 9.30—Mr. J. Lloyd Jones, entertainer.
 9.40—Miss Elsie Code, soprano.
 9.47—Mr. Roy Ramage, cello solos.
 9.54—Miss Hazel Ralph, soprano.
 10.—Time signal.
 10.1—"The Age" news bulletin, exclusive to 3AR.
 10.15—The Georgian Cafe Orchestra.
 11—National Anthem and close down.

SATURDAY, JANUARY 16.

Morning Session.
 12 noon—Time Signal.
 12.1—1st Weather Forecast.
 12.3—Events of the Day.
 12.5—"The Age News Bulletin."
 12.15—Musical Selections.
 12.30—Stock Exchange Reports.
 12.35—Market Reports, Foreign Exchanges of the World, supplied exclusively to 3AR by Messrs. Thomas Cook & Sons.
 12.40—Musical selections.
 12.50—Mail Report, Shipping Movements, Musical Selections.
 1—Close down.
 Afternoon Session.
 Caulfield Races:
 1.30—Result of Hawthorn Hurdle, 2 miles, 65 yards.
 2.30—Result of Hedyay Stakes, 3/4 furlongs.
 3.5—Result of Anniversary Handicap, 1 mile, 4 furlongs.
 3.30—Musical Selections from the Studio.
 3.40—Result of the Rowena Steeple, about 2 miles.
 4.—Time Signal.
 4.15—Result of the Kookaburr Trial Handicap.
 4.45—Musical selections from the Studio.
 4.50—Result of Tooronga Handicap, 7 furlongs.
 4.55—The Evening Amusement Guide.
 5—Close down.
 Evening Session.
 6.15—The Georgian Cafe Orchestra.
 7.15—The Children's Corner by Uncle Peter.
 8.—Time Signal.
 8.15—Dance Night. The Rhythmic Dance Orchestra, relayed from the Maison De Luxe, Broadway, St. Kilda, under the direction of Mr. George Lewis.
 9.30—Week End Travellers Information, Railway Information supplied by the Victorian Railways Department, Tramway Information supplied by the Tramways Board, Road Information supplied by the Royal Automobile Club.
 9.50—The Rhythmic Dance Orchestra, relayed from the Maison De Luxe.
 11—National Anthem and Close down.

SUNDAY, JANUARY 17.

Morning Session.
 10.30—The Bells from St. James Old Cathedral.
 11—Service from the Independent Church, Collins Street. Preacher: Rev. George Cannon.
 Afternoon Session.
 3.—Time Signal.
 3.1—Brigadier Duthill will speak on "The Life of General Buthill."
 1.30—Selections from the Studio.
 4—Close down.
 Evening Session.
 6.30—The Bells from St. James Old Cathedral.
 7—Service from the Independent Church, Collins Street. Preacher: Rev. George Cannon.
 8.30—Mr. A. S. Whyte, talk: "Melbourne's new Fitzroy Way."
 9—Eclipse Grand Orchestra, relayed from the Eclipse Theatre, Port Melbourne, under the direction of Mr. George Healy.
 9.50—The Age News Bulletin.
 10—National Anthem and Close down.
MONDAY, JANUARY 18.
 Morning Session.
 12 noon—Time Signal.
 12.1—1st Weather Forecast.
 12.3—Events of the Day.
 12.5—Age News Bulletin.
 12.15—Musical Selections, Shipping Movements.
 12.30—Stock Exchange News.
 12.35—Market Reports.
 12.40—Mail Report, Shipping Movements, Musical Selections.
 1.—The Georgian Cafe Orchestra.
 2—Close down.
 Afternoon Session.
 Richmond Trotting. Results immediately after each race.
 3.30—Musical Selections.
 4.—Time Signal.
 4.1—2nd Weather Forecast. The Georgian Orchestra.
 4.45—Musical Selections.
 4.55—Evening Amusement Guide.
 5—Close down.
 Evening Session.
 6.15—The Georgian Orchestra.
 7.15—The Children's Corner by Uncle Bud.
 8.—Time Signal.
 8.11—Miss M. Bevan (solo pianist).
 8.2—Mr. Lance Warren (baritone).
 8.15—Miss Anne Jefferys (scolocunite).
 8.22—Mr. A. J. Stearnan (mandolin solos).
 8.32—Mr. J. Deabourgh-Carrol (baritone).
 8.39—Mr. Austin Peters (Dickens recital); 1 "Mr. Sanson, opens School" (from Nicholas Nickleby); 2 "Dan'l Peggoty" (from David Copperfield).
 8.49—Miss B. Duggan (soprano).
 8.54—Mr. Lionel Davis (solo pianist).
 9.1—Mr. K. Johnson (bass).
 9.11—Mr. Lance Warren (baritone).
 9.18—Miss Anne Jefferys (scolocunite).
 9.25—Mr. A. J. Stearnan (mandolin solos).
 9.35—Mr. J. Deabourgh-Carrol (baritone).
 9.42—Mr. Austin Peters (Dickens recital); 1 "Mark Tapley" (from Martin Chuzzlewit); 2 "Bill Sykes" (from Oliver Twist).
 9.51—Mr. K. Johnson (bass).
 10.—Time Signal.
 10.1—The Age News Bulletin exclusive to 3AR.
 10.15—The Georgian Cafe Orchestra.
 11—National Anthem and Close down.

TUESDAY, JANUARY 19.

Morning Session.
 12 noon—Time Signal.
 12.1—1st Weather Forecast.
 12.3—Events of the Day.
 12.5—"The Age News Bulletin."
 12.15—Musical Selections.
 12.30—Stock Exchange News.
 12.35—Market Reports.
 12.40—Musical Selections.
 12.50—Mail Report, Shipping Movements, Musical Selections.
 1.—The Georgian Orchestra.
 2—Close down.

BURGESS—"THEY'RE ON THE 'LEVIATHAN'"—BATTERIES

Afternoon Session.
 3.30—Musical Selections.
 3.35—Graphic News.
 4—Time Signal.
 4.1—2nd Weather Forecast. The Georgian Orchestra.

4.15—Musical Selections.
 4.55—Evening Amusement Guide.
 5—Close down.

Evening Session.
 6.15—The Georgian Cafe Orchestra.
 7.15—The Children's Corner by Uncle Peter.
 8—Time Signal.
 8.1—Miss Gwen Mattingley (solo pianist).
 8.8—Mr. Kenneth Sutherland (baritone).
 8.15—Miss Jean Jambeson (soubrette).
 8.22—Miss Isabel Harris (soprano).
 8.29—Mr. Eugene Ronald (tenor).
 8.36—Mr. A. Gieschen (violinist).
 8.42—Miss Elsie Mitchell (soprano).
 8.49—Mr. Norman Wood (comedian).
 8.57—Miss Margaret Groom (contralto).
 9.1—Mr. Kenneth Sutherland (baritone).
 9.11—Miss Jean Jamieson (soubrette).
 9.18—Miss Isabel Harris (soprano).
 9.25—Mr. Eugene Ronald (tenor).
 9.32—Mr. A. Gieschen (violinist).
 9.39—Mr. Norman Wood (comedian).
 9.46—Miss Gwen Mattingley (solo pianist).
 9.54—Miss Elsie Mitchell (soprano).
 10—Time Signal.
 10.1—The Age News Bulletin exclusive to 3AR.

10.15—The Georgian Cafe Orchestra.
 11—National Anthem and Close down.

WEDNESDAY, JANUARY 20

Morning Session.
 12 noon—Time Signal.
 12.1—1st Weather Forecast.
 12.3—Events of the Day.
 12.5—The Age News Bulletin.
 12.15—Musical Selections.
 12.30—Stock Exchange News.
 12.35 Market Reports.
 12.40—Musical Selections.
 12.50—Mail Reports. Shipping Movements.
 Musical Selections.
 1—The Georgian Orchestra.
 2—Close down.

Afternoon Session.
 Richmond Races. Results immediately after each Race.
 3.30—Musical Selections.
 3.45—The Graphic News.
 4—Time Signal.
 4.1—2nd Weather Report. The Georgian Orchestra.
 4.45—The Girl Guides' Bulletin.
 Evening Session.
 6.15—The Georgian Cafe Orchestra.
 7.15—The Children's Corner by Uncle Red.
 8—Time Signal.
 8.1—The Felix Jazz Quartette. Fox Trots. One Step.
 8.15—Mr. W. Davies (bass).
 8.22—Miss Rae Allen (soprano).
 8.29—M. L. Stanley (tenor).
 8.36—Mr. Ted Davies (soubrette).
 8.43—Mrs. W. Davies (solo pianist).
 8.50—Mr. Colin Merrals (baritone).
 8.57—Mr. C. Hurooth and Miss Minnie Marks (duet).
 9.4—Mr. S. L. Powell.
 9.11—Miss Rae Allen (soprano).
 9.18—Mr. W. Davies (bass).
 9.25—Mr. Ted Davies (soubrette).
 9.32—M. L. Stanley (tenor).
 9.45—The Felix Jazz Quartette. Selections of Popular Dance Music.
 10—Time Signal.
 10.15—The Georgian Cafe Orchestra.
 11—National Anthem and Close down.

THURSDAY, JANUARY 21

Morning Session.
 12 noon—Time Signal.
 12.1—1st Weather Forecast.
 12.3—The Age News Bulletin.
 12.15—Musical Selections.
 12.30—Stock Exchange News.
 12.35—Market Reports.
 12.40—Mail Notices. Shipping Movements.
 Musical Selections.
 12.50—Musical Selections.
 1—The Georgian Cafe Orchestra.
 2—Close down.

Afternoon Session.
 3.30—Musical Selections.
 3.45—Graphic News.
 4—Time Signal.
 4.1—2nd Weather Forecast.
 4.30—Fashion Talk, by Mrs. Rouanda of Paris.
 4.45—Musical Selections.
 4.55—The Evening Amusement Guide.
 5—Close down.

Evening Session.
 6.15—The Georgian Orchestra.
 7.15—The Children's Corner by Uncle Peter.
 8—Time Signal.
 8.1—Lecturette—"Care of Infants."
 8.15—Musical Selections from the Studio.
 8.30—Weekly Radio Talk, under the auspices of the Popular Radio Weekly. "Ratex" (Mr. J. Ian But). "The Music Code."
 9—Dance Night. The Sydney Dance Orchestra, relayed from the Maison De Luz, Broadway, St. Kilda, under the direction of Mr. George Lewis.
 9.30—Musical Selections from the Studio.
 9.50—The Maison De Luz Dance Orchestra.
 10—Time Signal.
 10.1—The Age News Bulletin. Exclusive to 3AR.
 10.15—The Maison De Luz Dance Orchestra.
 11—National Anthem and Close down.

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FRIDAY, JANUARY 16.

Morning Session, 11 a.m. to 3 p.m.
 11—Time signal; express train information.
 11.8—Musical Items by the Studio Orchestra.
 12—Time signal.
 12.2—Studio Orchestra.
 12.39—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
 12.45—The Studio Orchestra.
 1—Time signal.
 1.2—The Studio Orchestra.
 1.45—"Herald" and "Argus" news services; weather forecast; river reports; Stock Exchange information.
 3—Close down.

Afternoon Session, 3 to 5.15 p.m.
 3—Time signal.
 3.2—Musical Items by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco.
 4.15—"An Exit" of Buckley & Nunn Ltd. in a fashion talk.
 5—"Herald" and "Argus" news services; Reuter's and the Australian Press Association cables.
 5.15—Close down.

Evening Session, 8 to 11.15 p.m.
 8—Children's Hour. "Billy Bunny" stories, nursery rhymes, "A Magical Trip," "House of the Eagle."
 8.45—"Herald" and "Argus" news services; Reuter's and the Australian Press Association cables; market reports; closing Stock Exchange information; railway, synoptic, shipping movements; Market reports by the Victorian Producers' Co-operative Co. Ltd.; Dairy cattle, sheep, carcass, meat, grain, chaff, hay, straw, juice, dairy produce, potatoes, and onions.
 Night Session, 7.45 to 11 p.m.
 Spoken: Miss Harriet Bennet, Mr. Leslie Branning, Mr. A. S. Madden, Collingwood Citizens' Band; Mauna Luo Duo; Miss Frances Lea, soprano; Mr. Frank Thomas; Ford and Phillips.
 7.30—Under the auspices of the Developmental League, Mr. A. S. Madden, "The Lure of the Soap Box."

7.45—Miss Harriet Bennet, now appearing in "Blue Time" at the Theatre Royal, will speak from her dressing room.
 8—The Collingwood Citizens' Band, march "Entry of Gladiators"; Inter-march "Ralph of Bagdad."
 8.15—Mr. Frank Thomas, "Lowestoft Boat" (Elgar), "Sylvia" (Sparks).
 8.22—Mauna Luo Duo, "One, Two, Three, Four," "Pua Carnation."
 Mr. Sparrow, solo, "The Rosary" (Nevin), "Madley of Italia."
 8.37—Miss Frances Lea, "My Mary, Sweet and Brown" (Kilmer), "Memories of Yon" (Wood).
 8.44—The Collingwood Citizens' Band, "Nearer, my God, to Thee," "Military Church Parade."
 9—Mr. Leslie Branning, "Gardening Notes—Winter Flowers."
 9.15—The Collingwood Citizens' Band, "American Medley"; march, "The Regiment."
 9.25—Ford and Phillips, in a spasm of melody, "Wasting Your Time on Wild Women," "Home in Pasadena," "On the Shores of Samoa."
 9.35—The Collingwood Citizens' Band, cornet solo, "La Palom.".
 9.48—Mr. Thomas, "Garden of Happiness" (Wood), "At Dawning" (Chadman).
 9.49—Mauna Luo Duo, "Aloha Oe Wella," "Three O'Clock in the Morning," "O Solo Mio," "Lacks Haha."
 10—"Argus" and "Herald" news.
 10.8—Miss Frances Lea, "Luxe, You're a Fraud" (Elliott), "When I'm Home Again" (Wood).
 10.15—The Collingwood Citizens' Band, selection, "Faua"; fox trot, "Eat More Fruit."
 10.30—Ford and Phillips, "Rouge of the Nile" (Travers).
 10.40—The Collingwood Citizens' Band, trombone novelty, "Sliding Jim"; "Marine Artillery."
 11—"God Save the King."

SATURDAY, JANUARY 16.

Morning Session, 11 a.m. to 3 p.m.
 11—Time signal; express train information.
 11.8—Musical items by the Studio Orchestra.
 12—Time signal.
 12.3—The Studio Orchestra.
 12.30—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
 12.45—The Studio Orchestra.
 1—Time signal.
 1.2—The Studio Orchestra.
 1.30—Result of the Hawthorn Handicap from the V.A.T.C. Meeting at Caulfield.
 1.35—The Studio Orchestra.
 1.45—"Herald" and "Argus" news services; Stock Exchange information; weather forecast; river reports.
 2—Close down.
 2.30—Result of the Holiday Stakes from the V.A.T.C. Meeting at Caulfield.
 Afternoon Session, 3 to 5.15 p.m.
 3—Time signal.
 3.5—Result of the Anniversary Handicap from the V.A.T.C. Meeting at Caulfield.
 3.8—Musical Items from the Studio.
 3.40—Result of the Rovens Steeple from the V.A.T.C. Meeting at Caulfield.
 3.45—Musical Items from the Studio.
 4.15—Result of the Koukaribb Trial Handicap from the V.A.T.C. Meeting at Caulfield.
 4.18—Musical Items from the Studio.
 4.50—Result of the Tuoronga Handicap from the V.A.T.C. Meeting at Caulfield.

5.—All the sporting results; Reuter's and the Australian Press Association cables.

5.15—Close down.

Progress results of all sporting events will be given throughout the afternoon as they come to hand, and the evening will be given at each hour. Resuming Session, 5.45 to 7.15 p.m.

5.45—All sporting results, local, country and interstate.

6.—Children's Hour. Stories by Mary Gummel; "The Market Square," "Jane," "The House that Danny Built," "Cinderella," "Abraham Lincoln."

6.45—Sporting results; "Herald" and "Argus" news services; Reuter's and the Australian Press Association cables; market reports; closing Stock Exchange information; shipping movements; weather synopsis. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Grain, chaff, hay, straw, jute, dairy produce, potatoes, and onions.

Night Session, 7.15 to 11 p.m.
 7.—Astronomical. Speakers: Mr. F. Chapman, A.L.S., Dr. J. A. Leach, D.Sc. Miss Doris McInnes, soprano; Miss Grace Jackson, contralto; Mr. Syd. Exton, tenor. The Studio Orchestra; musical director, Miss Bessie Gunnan. Miss Agnes Fortuna, accompanist.

7.20—Mr. Fredk. Chapman, A.L.S., "More about Stones that Grow—Plants that Make Rocks." 7.40—Dr. J. A. Leach, D.Sc., "Birds of Australia—Birds of Paradise and Rifle Birds."

8.—The Sun. "The Studio Orchestra," "Aurora" (Mehdin).

8.15—Miss Dorothy Roxburgh, viola solo. "Hymn to the Sun" (Binsky Korakof).

8.15—Miss Grace Jackson, contralto. "Aria, O Sun," "Good Morning, Brother Sunshine" (Lehman).

8.22—The Studio Orchestra, "By the Lake of Geneva, the Moonlight Sail to Lovers' Isle" (Bendel).

8.32—Mr. Syd. Exton, tenor. "Ah, Moon of my Delight" (Lehman).

8.38—Miss Doris McInnes, soprano. "Pale Moon" (Lorenz).

8.40—The Studio Orchestra, "Night of Stars"—Borcarello, "Tales of Hoffmann."

8.50—Mr. Syd. Exton, tenor. "Like Stars Above."

8.55—Miss Doris McInnes, soprano. "O Night of Stars and Splendour" (Thompson).

9.—Miss Agnes Fortuna, piano solo. "Nocturne, B Major" (Chopin).

9.10—Mr. Syd. Exton, tenor. "When Night Descends" (Rachmaninoff).

9.14—Miss Grace Jackson, contralto. "My Land of Dreams" (Wynne).

Day.
 9.18—The Studio Orchestra, "Day in May" (Prinl).

9.28—Miss Doris McInnes, soprano. "Days" (Curran).

9.42—Miss Grace Jackson, "Marning" (Sneaker).

A Wet Day.
 9.46—The Studio Orchestra, "Funeral March of Marionettes" (Gounod), "Dance of the Raindrops" (Adams).

10.—"Argus" and "Herald" news services.
 A Fine Day.
 10.5—Miss Doris McInnes, soprano. "One Fine Day" (Puccini).

10.10—The Studio Orchestra, suite, "Summer Days" (Coates).
 Tempest.

10.25—Studio Orchestra, descriptive fantasia, "The Tempest" (Laloe).

10.30—Mr. Syd. Exton, "The Anchor's Weighed."

10.40—Studio Orchestra, "After the Storm."

11—"God Save the King."

SUNDAY, JANUARY 17.
 Morning Session, 11 a.m. to 12.15 p.m.

Morning service from Scots' Church, Collins Street, conducted by Rev. Graham H. Bulford, M.A., B.D.; organist, Mr. W. E. Ellis.

11—Psalm I. (Metrical). "That man hath perfect blessedness," prayer; hymn 2, "Baths of Heaven whose love profound"; lesson, Proverbs 4, 1-18; Psalm 73, "Give the king Thy judgments, O God"; prayer; lesson, H. Timothy 1; anthem, "I am Alpha and Omega" (Stainer).

The Lord's Prayer; sermon, "The Spirit of Breadth and the Spirit of Christ"; offering; offertory anthem, "Give ear unto my prayer" (Arundell); hymn 219, "The King of Love my Shepherd is"; Benediction.

Afternoon Session, 3 to 4.30 p.m.
 Pleasant Sunday afternoon service, Wesley Church, Central Mission; chairman, Rev. S. J. Hoban.

3.—Orchestral selection, Mr. G. M. Williams conductor; hymn, "Hail, Thou once despised Jesus"; prayer, Rev. J. H. Cain; hymn, "Nearer, my God, to Thee" solo, Miss May Alberta; orchestral selection; solo, Miss May Alberta; notices and offering; orchestral selection; address, Dr. Stanley Argyll, Chief Secretary; National Anthem; Benediction; orchestral selection.

Evening Session, 6 to 8.45 p.m.
 6.—Children's Hour. Stories by "Billy Bunny"; Bible battles and other stories.

9.45—Close down.

Evening service from Central Mission, Wesley Church, conducted by Rev. S. J. Hoban and Rev. J. H. Cain.

7.—Introit by choir; prayer, repeated by congregation; hymn, "Jesus shall reign"; brief prayer, Rev. J. H. Cain; hymn, "O Love that will not let me go"; Scripture reading, Rev. J. H. Cain; anthem, "Grieve not the Holy Spirit" (Stainer), unaccompanied; general prayer, Rev. S. J. Hoban; intimations and offertory, sentences by choir; anthem, "Hail, God of all being throned afar"; sermon, Rev. S. J. Hoban; hymn, "Hark, my Soul, it is the Lord"; Benediction. From the Studio; Mr. Walter Smith, cornet; Miss Marie Bremner, soprano; Mr. Eric Fostam, of "Abaddon"; Mr. Stanley Adams, by permission of J. O. Willhamson Ltd., accompanied by Miss Margaret Denny; M. Harold Rogers, pianist and accompanist.

8.30—Mr. Harold Rogers, pianoforte, "Cradling Light" (Marlin); hymn, "Lord of all being throned afar"; sermon, Rev. S. J. Hoban; hymn, "Hark, my Soul, it is the Lord"; Benediction. From the Studio; Mr. Walter Smith, cornet; Miss Marie Bremner, soprano; Mr. Eric Fostam, of "Abaddon"; Mr. Stanley Adams, by permission of J. O. Willhamson Ltd., accompanied by Miss Margaret Denny; M. Harold Rogers, pianist and accompanist.

8.40—Miss Marie Bremner, soprano, "When Love is Kind" (Al), "Ave Maria" (Schubert).

8.47—Mr. Stanley Adams, accompanied by Miss Margaret Denny, "Romance" (Swendson), "Musical" (Mendelssohn), "On Wings of Song" (Mendelssohn).

9.2—Mr. Eric Haslam, baritone, "Blow, Blow, Thou Winter Wind" (Sarjeant), "Border Ballad" (Common).

9.9—Mr. Walter Smith, cornet, "Shepherd's Morning Song" (Suppe).

9.19—Miss Marie Bremner, soprano, "The Cuckoo" (Lehmann), "Salutation" (Lehmann).

9.28—Mr. Stanley Adams, accompanied by Miss Margaret Denny, "Legende" (Wieniaski), "La Gitana" (Kremler).

9.41—Mr. Eric Haslam, baritone, "A Screenshot of the Life of Squire" (Goult), "The Mating" (Lohr).

9.48—Mr. Walter Smith, cornet, "Ave Maria" (Gounod).

9.55—"Argus" and "Herald" news service.

10—"God Save the King."

MONDAY, JANUARY 18.
 Morning Session, 11 a.m. to 2 p.m.

11.—Time signal; express train information.

11.3—Musical items by the Studio Orchestra.

12.—Time signal.
 12.2—The Studio Orchestra.
 12.30—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
 12.45—The Studio Orchestra.
 1.—Time signal.
 1.2—The Studio Orchestra.
 1.45—"Herald" and "Argus" news services; Stock Exchange information; weather forecast; river reports.
 2.—Close down.
 The results of the Richmond trials will be given immediately at the conclusion of each race.
 Afternoon Session, 3 to 5.15 p.m.
 3.—Time signal.
 3.2—Musical items by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco.
 3.40—Maitron Moreland on "Inland Wales."
 3.55—Paramount Theatre Orchestra.
 5.—"Herald" and "Argus" news services; Reuter's and the Australian Press Association cables.
 5.15—Close down.
 The results of the Richmond trials will be given immediately at the conclusion of each race.
 Evening Session, 6 to 7.15 p.m.
 6.—Children's Hour. Stories by "Billy Bunny"; "Follow the Leader," "The Magical Trip," "Houses of the East."
 6.45—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables; market reports; weather synopsis; closing Stock Exchange information; shipping movements; market reports by the Victorian Producers' Co-operative Co. Ltd.; Haymarket sales, poultry, hay, grain, chaff, straw, jute, dairy produce, potatoes, and onions.
 Night Session, 7.20 to 11 p.m.
 Speakers: Mr. J. B. Huggan, Mr. J. C. Boyce, Mr. J. Howlett Ross, Mr. C. Norman Lee, Shakespearean entertainer; Phillips and Ford, the Harmony Duo; Miss Agnes Fortuna, pianist and accompanist. Victorian Railways Institute Military Band.
 7.25—Under the auspices of the Town Planning Association, Mr. J. B. Huggan, "Slum Areas and their Prevention."
 7.40—Mr. J. C. Boyce, Government Tourist Officer, "Summer at the Seaside."
 8.—The Victorian Railways Institute Military Band, transmitted from the Victorian Railways Institute.
 8.45—Mr. Norman Lee, Shakespearean recital, "The Seven Ages of Man"—"As You Like It."
 8.50—Phillips and Ford, Harmony Duo,

- "Never Again," "Topsy Turvy Town."
- 9.—Mr. J. Howlett Ross, "Famous Australians—Sir Redmond Barry."
- 9.15.—The Victorian Railways' Institute Military Band.
- 10.—"Argus" and "Herald" news services.
- 10.7.—Phillips and Ford, Harmony Duo, "All Alone," "Why do they always say No?"
- 10.11.—Miss Agnes Fortune, piano solo, "Etude in F Major" (Chopin).
- 10.17.—Mr. Norman Lee, Shakespearean recital, Romeo's Balcony Speech—"Tomato and Juliet."
- 10.27.—Miss Agnes Fortune, piano solo, "Il Meta Continuo" (Weber).
- 10.37.—Phillips and Ford, Harmony Duo, "On my way back to New Orleans," "On the Oregon Trail."
- 10.44.—Miss Agnes Fortune, pianoforte, Adagio and Rondo from "Pasticcio Romano" (Beethoven).
- 11.—"God Save the King."
- TUESDAY, JANUARY 19.**
- Morning Session, 11 a.m. to 2 p.m.
- 11.—Time signal; express train information.
- 11.3.—Musical items by the Studio Orchestra.
- 12.—Time signal.
- 12.2.—The Studio Orchestra.
- 12.30.—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
- 12.45.—The Studio Orchestra.
- 1.—Time signal.
- 1.2.—The Studio Orchestra.
- 1.45.—"Argus" and "Herald" news services; Stock Exchange information; weather forecast; river reports.
- 2.—Close down.
- Afternoon Session, 3 to 5.15 p.m.
- 3.—Time signal.
- 3.1.—Musical items by the Paramount Theatre Orchestra under the baton of Signor Vincent Ricco.
- 3.40.—"Au Fait," of Buckley & Nunn Ltd. in a fashion talk.
- 3.55.—Paramount Theatre Orchestra.
- 4.50.—Miss Flora Poll, Supervisory of Domestic Arts, Education Department, in a talk on "Domestic Economy."
- 5.—"Herald" and "Argus" news services; Reuter's and the Australian Press Association cable news.
- 5.15.—Close down.
- Evening Session, 6 to 7.15 p.m.
- 6.—Children's Hour, Stories by Mary Queen, poems, "The Four Friends," "The Breaking Staff," "Daisy's Garden," "Princess Moonbeam," "Abraham Lincoln."
- 6.45.—"Herald" and "Argus" news services; Reuter's and the Australian Press Association cable news; market reports; weather synopsis; closing Stock Exchange information; shipping movements; Market reports by the Victorian Producers' Co-operative Co. Ltd.; Haymarket sheep sales, poultry, grain, chaff, hay, straw, jute, dairy produce, potatoes, and onions.
- Night Session, 7.15 to 11 p.m.
- Famous Composers. Speakers: Mr. A. W. Glenross, Mr. J. M. Ward, Dr. Loftus Hills, Miss Violet Jackson, soprano; Mr. Bobby Pearce, baritone; Miss Dorothy Roxburgh, viola; Mr. Syd. Exton, tenor; Miss Agnes Fortune, pianiste and accompanist; Miss Iscis Brown, mezzo; Miss Bessie Ganson, violiniste. The Studio Orchestra, musical director, Miss Bessie Ganson. Haines and Bannion, entertainers.
- 7.15.—Under the auspices of New Settlers' League, Mr. A. W. Glenross, "The Ideal Country Hospital."
- 7.30.—Mr. J. M. Ward, Supt. of Horticulture, Agriculture Department, "Control of Fungus Diseases."
- 7.45.—University Extension Lectures, Mr. J. T. Sutcliffe, Commonwealth Statistician Officer, "Trade Union Organization and Development." Rossini.
- 8.—The Studio Orchestra, overture, "Italians in Algeria."
- 8.10.—Miss Violet Jackson, soprano, "Una Voce Poco fa"—"Barber of Seville."
- 8.15.—The Studio Orchestra, "La Gazza Ladra."
- 8.35.—Mr. Bobby Pearce, baritone, "Largo al factotum della città"—"Barber of Seville."
- An Interlude.
- 8.40.—Haines and Bannion, entertainers
- 8.50.—Mr. J. Bannion, "For You Alone," monologue, V. Haines, "The Lesson of the Watermill"; duet, "Pecaninnies' Lullaby."
- 8.52.—Dr. Loftus Hills, D.Sc., "Popular Science—Gin and Rum." Schubert.
- 9.7.—The Studio Orchestra, selection, "Schubert Songs."
- 9.17.—Miss Violet Jackson, soprano, "Hark, Hark the Lark."
- 9.21.—Miss Dorothy Roxburgh, viola solo, "Moment Musical."
- 9.28.—Mr. Syd. Exton, tenor, "Who is Sylvia?" Schumann.
- 9.32.—Miss Agnes Fortune, pianoforte solo, "The Prophet Bird."
- 9.40.—Mr. Bobby Pearce, baritone, "Two Grenadiers."
- 9.44.—The Studio Orchestra, "Quartet in A Minor for Piano and Strings."
- 9.54.—Miss Violet Jackson, soprano, "Moonlight," "The Lotus Flower."
- 10.1.—"Argus" news reporting.
- 10.5.—Haines and Bannion, entertainers; Solo, Mr. J. Bannion, "O Flower of all World"; monologue, V. Haines, "Smile"; duet, "Stars of the Summer Night."
- 10.13.—The Studio Orchestra, "Mirabella."
- 10.27.—Miss Iscis Joy Brown, mezzo, "O Divine Redeemer," "The Flower Song"—"Faust."
- 10.34.—The Studio Orchestra, selection, "Romeo and Juliet." Handel.
- 10.42.—Mr. Syd. Exton, tenor, "Comfort ye"—"Messiah."
- 10.47.—Miss Iscis Brown, mezzo, "Angels ever bright and fair."
- 10.50.—The Studio Orchestra, "Largo."
- 11.—"God Save the King."
- Morning Session, 11 a.m. to 2 p.m.
- 11.—Time signal; express train information.
- 11.2.—Musical items by the Studio Orchestra.
- 12.—Time signal.
- 12.2.—The Studio Orchestra.
- 12.30.—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
- 12.45.—The Studio Orchestra.
- 1.—Time signal.
- 1.2.—The Studio Orchestra.
- 1.45.—"Herald" and "Argus" news services; weather forecast; river reports.
- 2.—Close down.
- 2.30.—Result of the Maiden Plate from the Woodend Race Club Meeting.
- Afternoon Session, 3 to 5.45 p.m.
- 3.—Time signal.
- 3.1.—Result of the Two-year-old from the Woodend Race Club Meeting.
- 3.5.—Musical programme by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco.
- 3.30.—Result of the Trial Handicap from the Woodend Race Club Meeting.
- 3.35.—Paramount Theatre Orchestra.
- 4.—Result of the Woodend Cup from the Woodend Race Club Meeting.
- 4.3.—Paramount Theatre Orchestra.
- 4.30.—Sister Peck, of the Victorian Dairy Health Centre Association, will speak on "Mothercraft."
- 4.45.—Result of the J.C. Handicap from the Woodend Race Club Meeting.
- 4.45.—Choral Evensong, transmitted from St. Paul's Cathedral.
- 5.30.—Sporting results: "Herald" and "Argus" news services; Reuter's and the Australian Press Association cables.
- 5.45.—Close down.
- Evening Session, 6 to 7.15 p.m.
- 6.—Children's Hour, Stories by Mary Queen; Bill: "The Quest of the Fairy Prince."
- 6.45.—"Herald" and "Argus" news services; sporting results; Reuter's and the Australian Press Association cable news; market reports; weather synopsis; closing Stock Exchange information; shipping movements; Market reports by the Victorian Producers' Co-operative Co. Ltd.; Newmarket sales, cattle, pigs, sowse, meat, grain, chaff, hay, straw, jute, dairy produce, potatoes, and onions.
- Night Session, 7.20 to 11 p.m.
- "A Lightsome Programme." Speakers: Mr. O. A. Mendelsohn, B.Sc., Mr. R. H. Gollan, Mr. Ernest C. Rolls, Capt. C. H. Peters, Mr. Frank R. Thomas, baritone; Miss A. Fortune, accompanist. The Studio Orchestra, musical director, Miss B. Ganson. Pantomime, "Aladdin."
- 7.20.—Mr. O. A. Mendelsohn, B.Sc., "Science and the Criminal."
- 7.40.—Mr. R. H. Gollan, Assistant Publicity Officer, Victorian Railways, "Interesting Aspects of Railway Operation."
- 8.—Studio Orchestra, "To-night's the Night."
- 8.10.—Mr. Frank R. Thomas, baritone, "Quora noi fu" (Handel), "Ne Bona, no Home" (Brahms).
- 8.15.—The Studio Orchestra, "Henry VIII. Dances" (German).
- 8.27.—Mr. Ernest C. Rolls, producer of "Aladdin" at His Majesty's Theatre, will tell how a pantomime is produced, permission J. C. Williamson Ltd.
- 8.40.—Mr. Frank R. Thomas, baritone, "Fortune Hunter" (Wilsby), "Requiem" (Homer).
- 8.47.—The Studio Orchestra, "Merry Wives of Windsor."
- 8.57.—Captain C. H. Peters, "Books, Wives and Otherwise."
- 9.—Last act of "Aladdin" transmitted from His Majesty's Theatre, by permission J. C. Williamson Ltd. Patrol, "Tinga-tee," chorus; duet, "Alabamy Bound," Floie Allan and Dorothy Dewar; song, "I'm afraid to hold my breath," Rupert Hazel; dance doll, Main Baced and Archie Thomson; song, "Pecaninnies Blues," Jennie Benson; song, "Smile," Bernard Manning and ballet; song, "Kippers," Bruce Green; song, "Tiny Town," Floie Allan, children, and radiants; opening chorus, "Let's Look," "Aladdin" Octet and chorus; song, "You Forgoz to Remember," June Fildes; song, "Lotus Flower," Bernard Manning; song, "I'm Afraid of Love," Gus Blunt; gymnastic display by the Twelve Wonderful Williamson Girls, arranged by Wahne Shuska, supervised by Minnie Everett; song, "Sunshine Sal," Jennie Benson; specialty, "The Wilson's Master List," Walter Sisson; song, "Ukelele Lady," Jennie Benson and chorus; finale, "Here Comes the Bride," entire company.
- 11.—"God Save the King."
- THURSDAY, JANUARY 21.**
- Morning Session, 11 a.m. to 2 p.m.

- 11—Time signal; express train information.
 11.3—Musical items by the Studio Orchestra.
 12—Time signal.
 12.2—The Studio Orchestra.
 12.40—"Argus" and "Herald" news services; Reuter's and the Australian Press Association cables.
 12.45—The Studio Orchestra.
 1—Time signal.
 1.2—The Studio Orchestra.
 1.45—"Herald" and "Argus" news services; Stock Exchange information; weather forecast; river reports.
 2—Close down.
 Afternoon Session, 3 to 5.15 p.m.
 3—Time signal.
 3.1—Musical programme by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco.
 5—"Herald" and "Argus" news services; Reuter's and the Australian Press Association cable news.
 6.15—Close down.
 Evening Session, 8 to 7.15 p.m.
 6—Children's Hour. Stories by Mary Graham: "Little Bo Peep," "Little Boy Blue," "A New Friend," "A Canadian Girl Shooting the Rapids," "Roland Philippe, Scout."
 6.45—"Herald" and "Argus" news services; Reuter's and the Australian Press Association cable news; market reports; weather synopsis; closing

- Stock Exchange information; shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sales, cattle, pigs, carcass meat, grain, chaff, hay, straw, lute, dairy produce, potatoes, and onions.
 Night Session, 7.20 to 11 p.m.
 Speakers: Mr. A. E. McMicken, Mr. W. P. Riordan, The Studio Orchestra; musical director, Miss B. Gausson, Miss Billie Jones, soprano; Mr. Norman Bradshaw, tenor; Mr. Max Ashton, humorist; Mr. A. Borthwick, xylophone.
 7.20—Mr. A. E. McMicken, Librarian, City of Prahran, "Popular Palaces."
 7.40—Under the auspices of the Health Association of Australasia, Mr. W. P. Riordan, "Oral Hygiene."
 8—The Studio Orchestra, fox trot, "Huh Lou," "Don't Wake Me Up."
 8.10—Miss Billie Jones, soprano, "Tou Tired," "Let Me Linger Longer."
 8.17—The Studio Orchestra, waltz, "Haunting Melody," "Come Back, Old Pal."
 8.27—Mr. Norman Bradshaw, tenor, "Mauchla" (Macmurgah), "The Blind Ploughman" (Clarke).
 8.34—The Studio Orchestra, fox trot, "Who Wouldn't Love You," "Mighty Blue."

- 8.44—Mr. A. Borthwick, xylophone solo, waltz, "What Became of Sally," fox trot, "If You Know Susie"; one-step, "Let It Rain"; fox trot, "Don't Bring Lulu."
 8.58—The Studio Orchestra, one step, "Biddy," "Charlie, My Boy."
 9.9—Mr. Max Ashton, humorist, "Trustful Tradesmen," "Murders."
 9.16—The Studio Orchestra, fox trot, "Let Me Again," "I'm Sitting on Top of the World."
 9.26—Miss Billie Jones, "Roses of Piccadilly," "Hennulu Blues."
 9.33—The Studio Orchestra, waltz, "First Love," "June Brought the Roses."
 9.43—Mr. Norman Bradshaw, tenor, "Jueeese" (Barry), "We'll Know, We'll Understand" (Henry).
 10—"Argus" and "Herald" news services.
 10.5—The Studio Orchestra, one step, "When the Lilies Bloom in France."
 10.15—Mr. A. Borthwick, xylophone, "The Reentry," "End of the Lane," "No Wonder."
 10.30—The Studio Orchestra, fox trot, "Sweet Baby Mine," "Titina."
 10.40—Mr. Max Ashton, humorist, "Shurr-up," "Sad Endings."
 10.47—The Studio Orchestra, fox trot, "Sabara," "Love Came Calling."
 11—"God Save the King."

THINGS I SEE AND HEAR

We hear on all sides varying opinions as to the future of the Radio industry. Some people are quite positive that there will never be a brisk demand for wireless goods, while other authorities equally well informed, constantly state that things are going to be very good soon.

Personally as one who looks on from without the circle of dealers, experimenters and other experts, I have formed the conclusion that one of the most healthy signs to be seen is that there is a marked tendency on the part of (a) the trade to stock, and (b) the listeners-in to purchase, better quality material at a little higher price.

This seems to me to be the keynote of the whole position. Poor grade material means very bad reception; and the indifferent results achieved in the past have undoubtedly been largely responsible for the present trade stagnation. Bad results mean that wireless as an entertainment becomes only a very poor joke. The obvious remedy then is to use better component parts and so lead on to good reception and popularity for radio.

That is why I am optimistic for the future. People are spending money on quality, as is evidenced by, among many other things, the number of high class "B" batteries we hear of being sold.

To take one in this class, we will mention the Burgess Dry Battery which is now being displayed in most shops.

Here you have a 45-volt "B" battery being sold for 30/-. Now why is it that the shops can sell all their supplies of this make when, say 12 months ago, a purchaser would have gasped at being asked more than 20/- at the very most.

The answer is because he knows that the Burgess Battery will give him trouble free results for very many months and that he can ask his friends to hear the radio without fear of breakdown from this direction.

He may not know it, but it is a fact that the people of America have been buying this battery generally for three years; and who know more about the joys and sorrows of listening in, than our cousins of the United States.

I am quite convinced that quality is the factor on which depends the success of radio, and what I have seen during my travels round this city of Sydney has quite convinced me that the radio public has got to that stage when it wants good stuff.

Incidentally it is interesting to note that Burgess Batteries were used for the successful Radio Photography Tests which were recently carried out between England and America.

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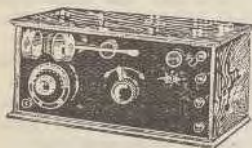
Accessories required:—
2 Valves 1 16 0
4 Radioaker Coils, Mtd. 0 19 0
2 1.5 Dry Cells 0 6 0
1 High Tension Battery 0 18 6
1 pr. Phones 0 12 6
100 ft. Aerial Wire 0 2 6
15 ft. Lead-in Wire 0 1 3
£4 14 3

Three Valve Set complete
with all panel material,
cabinet, wiring wire, wiring
diagram, solder, etc. 5 16 0

Accessories required:—
3 Valves 2 12 6
4 Radioakes Coils, Mtd. 0 19 0
3 1.5 Dry Cells 0 9 0
1 High Tension Battery 0 18 0
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