Honolulu Flyers Lead the Way

Carried by famous aviators in the recent Dale Prize Contest, the name of BURGESS has been blazed right across the Pacific from San Francisco to Honolulu. The winning plane “Woollaroo” reports consistent picking up of ship signals which directed him straight to his goal.

These same batteries had already distinguished themselves by their dependable service to such great adventurers as Byrd, Wilkins, Alexander Revell, Macmillan, and the American World Flyers and will accompany Kingsford Smith on his flight across the Pacific to Sydney.

BURGESS BATTERIES

The same dependable Batteries are sold by all high-class dealers in Australia.

Wholesale: New System Telephone Pty Ltd, 280 Castlereagh Street, Sydney

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An Achievement

THE A.W.A. SUPER-AUDIO TRANSFORMER AND CHOKE

Transformer Design

A good Transformer has:
1. High Inductance Primary.
2. Ample Cross Section of Iron.
3. Ample Cross Section of Copper.
4. Low Magnetic Leakage.
5. Low Distributed Capacity.

THE A.W.A. TRANSFORMER INCORPORATES ALL THIS.
A.W.A. Transformers and Chokes are Guaranteed.

PRICE: 18/- Each

An Unsolicited Testimonial

Extract from Letter to Amalgamated Wireless.

Brisbane, 16th October, 1927.

Dear Sir,

Having received some A.W.A. Super-Audio Transformers I have installed one in a broadcast four-tube receiver, and am in no short measure satisfied with my radio valve (A.W.A. Transformer and choke). There is no doubt that they are the best, as we understand, for all the broadcast stations I have tested, except one in which I found an increase in volume, clearness, and volume, especially the high notes of the radio, and we send our compliments.

Results on the one thing I found in my short time was excellent. I note that on a broadcast station, too, much clearer, elimination of noise, and much better all round, and we are sending a letter on all round. It is used with pleasure that I have found in the case of a broadcast station we believe this is the best one we have had, and that gives us every satisfaction in A.W.A. Aus- tralian-made Products.

Yours faithfully,

B. W. M.

(The name is not visible.)

The Seal of Quality

“It’s an A.W.A. Product”

Obtainable at All Radio Dealers.

Send this Coupon NOW for FREE Illustrated Leaflet

Price: 18/- Each

Brisbane, 16th October, 1927.

Dear Sir,

Please forward me your Free Illustrated Folder giving particulars of the A.W.A. Transformers and Chokes.

Name: ...

Address: ...

(Tel)
The BEST AERIAL and the Cheapest

Electron Wire is the highest possible quality aerial, the aerial which abolishes insulators and other costly appurtenances—produced in such quantities that it can be sold at 2/6 a 100 feet. Buy only Electron Wire. Note carefully the NAME and the distinctive BOX.

Electron brings Wireless within the reach of all.
NEWSPAPER reports from America have given interesting accounts of the Washington Radio Conference. It was attended by over 400 representatives of about 40 countries, and laws were made for the regulation of all kinds of wireless services.

We who are interested in broadcasting are apt to regard other activities of wireless as of secondary or little importance. Actually broadcasting was shown to be the comparatively unimportant activity. Wireless was first brought into the service of man as an auxiliary means of saving life at sea, and that form of service has remained for years the most important to which wireless could be applied. The equipment was also used in most cases for sending and receiving messages for passengers on the ship, and this incidentally has grown into an extensive business and a necessary public facility.

After dealing with the type of equipment to be used on ships (in order to ensure efficient service) the conference tackled the problem of regulating the newest and most fascinating branch of wireless—entertainment broadcasting. We must here discriminate broadcasting in that manner, because there are several stations in different countries—England, France, Germany, Italy, and America, principally—which broadcast a telegraphically signalled (Morse code) news service.

The big problem in internationally regulating the broadcasting services of the various nations was the prescribing of the wavelengths to be used. But for such a prescription there would be nothing to prevent adjacent countries using the same wavelengths, with consequent unavoidable interference, annoyance and possibly strained international relations.

Australia is better off than most countries in that regard. We have no closely contiguous nations who could interfere with us. But some sort of arrangement is necessary with New Zealand, Japan, Java and Singapore. Thanks to the attitude taken by Australia’s delegate, Mr. H. P. Brown, of the Post Office, we will have greater freedom than most other countries. Wireless services may be carried on in any way that suits Australian authorities, so long as the services of neighboring nations are not interfered with.

Some people apparently gathered from newspapers reports that our broadcasting wavelengths would be altered. That is not necessarily so in reason of any conference decision. No one wants to see SLO or 2FC alter their wavelengths again, and there appears to be but little likelihood of any such alteration occurring.
Catching Up with the Wireless World.

BY R. E. CORDER.

THE RINGER: The excuse that he had won his crystal set at a game of "traps," and did not think a licence necessary, was offered by A. Chalmers (Dubbo), last month. He was fined $5, and ordered to take out a licence.

THE FOLLOWING LIST shows the number of licensed transmitting stations in the various States of the Commonwealth. New Zealand and Brazil have also been included for comparison. (W. V., 16th July, V. 184.)

Goulburn: 47; N.S. 50; W.A. 32; Tasmania: 29, New Zealand: 197; Brazil: 16.

FOSILISED interest in radio in the Azores is handicapped by the fact that there are no large broadcasting stations; there are, however, no restrictions as to broadcasting in fact the stations to be heard are located in England, France and Italy. Only the well-to-do can now maintain sets suitable for this reception, and consequently there is only fair interest such as that known in radio broadcasting. There are one official and one commercial telegraph station in these islands which are operated in general communication work.

TO THOSE CONTEMPLATING construction, and who intend starting housekeeping in a home of their own, Mr. Brogden's book on Architecture will be of interest. Mr. Brogden's correspondence is increasing each week. It's well written suggestions from newly-engaged couples, couples just about to marry, and those who are married for better or for worse. Some possess the deposit for a house, some have purchased ground on which to build the house, and others have neither. However, no matter what the circumstances are, Mr. Brogden is advising to the best of his ability, and as a result, a home in house-building may be expected.

AN AFRICAN wireless paper states that out of thirty thousand wireless sets in operation, fifteen thousand are unlicensed. A British periodical reports that 800 licences only have been issued in Calcutta. India, whereas one firm only in that city has sold over 2,000 sets.

AIRSHIP WIRELESS: A dirigible costing $300,000, now under construction in America, is to be fitted with a transmitter having a range of 2,000 miles.

FRENCH RADIO CONFERENCES: At the fourth annual Radio Conference held in Paris it was stated that broadcasting in France is in a most satisfactory position, largely an account of the reluctance of the French Post Office to allow private enterprises to undertake the formation of stations.

LOOKING AHEAD: A New Gallic nation has been interested in Mike, the mysterious voice, which is heard between points from broadcasting stations, 2BC, Sydney. A woman living at Fairlight tells how the New Gallic boy in a letter to Mike. She was a radio enthusiast and a recent trip to Papua and says she had no difficulty in picking up 2BC. "I had several native homesteads, and one in particular. That was very intelligent. I often allowed him to listen in, and he would understand why certain things were different from the ordinary. When I explained what you were doing I laughed and said, 'No, thank God, only one Tabla, and he stop along side.'"

"When I was returning to Sydney, Mike was very reluctant to return to his village. He said he wanted to go to Scotland and talk along with Tabla Mike. Your present interludium is a wireless programme which the ladies are to pan on a programme of the championship in a party. I think that listening to a programme without Mike would be like eating an egg without salt."
The Third Empire Broadcast

THOUGH the Third Empire broadcast letters of appreciation from England, France, Spain and Africa, to mention a few, the fact that it took over a month for mail to reach us from the British Isles.

In response to the request made by 2FC, over 1000 letters were received, and it is interesting to note that in most cases each sender refers to a sudden bad period of reception and fading which should not have occurred at the hour in question, according to the general suggestion that reception improves with night, but fades with approaching daylight.

In a nutshell, those who give a detailed notification of the reception, state that the reception was almost perfect at the commencement, when took place it was still daylight in England—viz. 7 o'clock. It was 6 a.m. in Australia, and was still dark. As dawn was breaking in Australia, reception began to fail—thought it was becoming dark in England, and upon daylight breaking out in Australia, and a corresponding effect in England, reception improved to such an extent, that it even improved on that received at the time of the programme.

It is interesting to note that most correspondents agree that these failures occurred exactly at the same times both on the high and the low wave receptions, and were not caused by any sort of temporary trouble in the transmitter, though now and again they manifested themselves. Mail, when received from 2FC, showed the same effect. Many 

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WIRELESS WEEKLY

Friday, December 30, 1927.

The Safety Valve

Readers are urged to express their opinion on matters pertaining to broadcasting. If you have some grievance, if you have some constructive criticism to offer, here is your chance for expression—your safety valve. The editor assumes no responsibility for statements made by readers and published on this page, as opinions of correspondents do not represent our editorial policies or beliefs. Anonymous letters are not considered.

CATER FOR THE MAJORITY.

Dear Sir,—I quite agree with remarks of J. A. Bell, in “Wireless Weekly” of December 16th, re descriptions of news reports, etc., on Saturday afternoons. It was quite a treat indeed to get an afternoon of decent musical items, etc., instead of that monotonous drone of race results, prices of winners, bet prices, scratchings of last race, etc., which has been the vogue for some time past on Saturday afternoons.

Whilst not entering into any details as to the question of whether racing is in order, or not, I certainly do think that the broadcasting stations (A Grade) should cater for the big majority of listeners (who keep them going) and not for a mere handful of professional bookies and 'change-overs'.

It is bad enough to waste time on the results of the races. It is ridiculous, and a worse feature again in the descriptions of the motor racing as might be. It is beyond words. I really think it is time the B stations woke up to the fact, and gave some sort of a purely entertaining character, unless it is something that is of interest to the majority of people who listen in constantly, and have the ear-tractors to those who frequent those, otherwise they will find a good many "Unsists" willing to let the game of "listening in."

Laura.

HEAR HEAR.

Dear Sir,—I was interested to see that there are at least a few persons in this world who would rather have to good quality music than horse races, and in reply to Mr. Dibley’s letter, which was published in “Wireless Weekly” of December 9th, I would just like to interject a hearty "Hear, hear!" in order that he may know that he has some support.

If matters of this kind of paper were only hit by against the treatment we are getting from our broadcasting stations, perhaps something might be done to some culture to some extent, and give a chance to get a better general satisfaction of the public who have to pay for what they don’t want.

A. McGILL.

For Purest Music Use only Philo.

The wireless weekly : the hundred per cent Australian radio journal
The wireless weekly : the hundred per cent Australian radio journal

THE ULTRAAUDION

Perhaps one of the most popular single-valve receivers ever described in "Wireless Weekly" has been the Ultraudion. Very few people know it by this name, as it is better known as the Mark I, and that it achieved much fame has been born out by this. Results achieved by it have been outstanding, and certainly has recalled its worthy cousin, the Extraordinary Fine Valley, in popularity. The parts required for it are few and far between, but they must be very well chosen in order that the best results are available.

What does one expect from a single valve receiver? In the summer here it is not possible to get anything like the same results as winter time produces. Still, when such periods the Ultraudion will give splendid phone reception on intermediate stations. The local stations also are heard at remarkably good volume, but such a lot depends on handling that too much stress cannot be placed on the necessity for being discreet in tuning in this receiver.

Discreet Handling.

It has to be adapted, too, that in discreet handling will give very inferior results, and it is very possible that neighbors will have their reception marred by the sound of an Ultraudion unless it is handled carefully. Actually this receiver is inclined to take care very readily, and in doing so will transfer energy to the aerial, thus making it, what might be termed, a transmisser. Now it is not too pleasant to be listening to a particular station and to hear that station's programme with a whistle caused by a frowning valve. This is very liable to occur with a mishandled Ultraudion, because of these opening remarks.

No, the prospective constructor is advised not to be afraid of the Ultraudion, because really it is a wonderful little receiver to own. It is surprising to know just what results may be had from such a small set. The writer recently built one, and was surprised to hear on the earphone not only the local stations but every interstate station receiving G.F. Perth. These results are quite usual with the Ultraudion, and should be had by every one who builds one. It is not expensive to make up, although there are a Bradley and a Bradley type necessary in this construction. It is admitted that these parts are somewhat expensive, but the constructor who desires to keep down the cost can do so by substituting an Element for the Bradley and some form of variable grid bank in place of the Bradley.

Sharpness of Tuning.

Emotionally sharp tuning is a feature of the Ultraudion, as such is a Vernier dial almost indispensable. The first view of the receiver shows one of the finest vernier dials that the writer has ever handled. It is the Crammed vernier dial, and has absolutely no backlash whatever. Besides this the tuning reading is very accurate, a fact which is very necessary when best results are sought.

Plenty of room is provided for all the parts. A panel size is quite generous, being 12 inches long by 7 inches high. The appearance of the completed receiver is very neat with the big dial right in the center, and the knobs one on each side. No switch is inserted, although if the constructor so desires, one can be included on the left-hand side of the panel to balance off the back. The wiring will have to be slightly altered. There are no terminals on the front panel, all the connections being made at the back.

When this receiver was first described in our pages, it was during the
Panel Layout.

Now turn to the panel. The drilling hole is a matter of a few moments only. Firstly, centerpunch each position, making a neat indentation so that the drill will enter freely and not split along the panel, leaving an ugly mark in its trail. The Emerson concentric motor required four holes, screws to hold it in the panel, and the manufacturer also always includes in the packet a template, with the position of these fixing screws, clearly defined. This template should be placed in position on the panel, and marked out correctly. Always be certain that the panel is on an even surface, otherwise it will not be defined true, although the Bradshaw and the Edison units only require one or two holes of an inch hole for mounting purposes. The holes of both these units are screwed right out, the fixing nut which is of generous dimensions is removed and the body of each unit is pressed through from the back of the panel, allowing a certain portion to project through the front. The locking nut is easily fixed in position, a turn of the pliers being all that is necessary to hold it securely.

Wiring.

Mount all the panel apparatus, not forgetting the hole for keeping the vernier dial in position, and fix the panel to the backboard by means of three screws. It is in our hard matter to screw into position the value unit and the coil and the terminal board on the backboard. Two small brackets can easily be fastened to raise the winding of the coil off the backboard, this backboard being given one or two coats of shellac varnish before any parts are mounted on it. The wiring can now be started and it must be impressed right how how careful one must be in wiring up a receiver of this description. The back

Coil Winding.

The winding of the coil is a matter of a few moments only. Begin half an inch from one end, place an drill too very small hole, then thread the beginning of the wire through these holes, so that it is held securely. Then wind on 90 times of this 24 gauge wire, each turn close to the adjacent one, and finish off by securing as previously mentioned. If this coil is wound on cardboard, it may be found advisable to give the winding a coat of shellac varnish, which will keep the wires from slipping. This is really not essential, when Eletec tubing is the base for this winding.

Making Shellac.

Orange shellac may be purchased from any ironmonger and comes to you in flakes. Get half a pound of this dry shellac and put it in a wide-mouthed bottle or pan, such as a pickle bottle. Pour some methylated spirits and pour sufficient into the pan to cover the shellac. Put a stopper in the bottle and shake it a few moments, heating it ever moment without disturbing it. In the morning it will be found that the shellac has dissolved, the result being a new quick-drying varnish. It must be mentioned that a stopper should always be kept on the bottles when not in use, as the methylated spirits evaporates very quickly. It is quite usual to expect the work to stick—all good shellac will do this. To treat the cardboard, coat the inside and the outside with the varnish, which has here previously mentioned; it dries very quickly.

Four or more Valve Sets demand Philips.
of panel wiring diagram shows you the direction of each connection, but for those who require it, the following written description will be of interest.

Using both hands, join the B terminal to the A negative terminal and continue this lead to the moving plates of the variable condenser, and also to one F terminal of the valve socket. Now join together the A positive and the B negative terminal, and continue this lead to one side of the Bradleystat marked 33 on the diagram, bringing the other side of this Bradleystat right back to the remaining F terminal of the valve socket. Now short the Bradleystat with the gift condenser, and continue this lead to the B terminal of the valve socket, taking the other side to the fixed plates of the variable condenser, and to one side of the coil, connect to one side of the jack and also to the aerial terminal on the terminal board. The remaining leg of the jack is connected to the B positive terminal on the terminal board. If desired, that screw which holds the vernier dial in position on the panel may be connected to the moving plates of the condenser, these plates being at earth potential, and, therefore, any body capacity which may be present, will be overcome.

Valve Used.

A very good detector valve which proved admirably suited to this installation was the Candesco, U.E.540, special detector, which is a valve of the soft variety and is very desirable indeed with different plate voltages. This valve is strongly recommended, as the valve plays such an important part, particularly in receiving the distant inter-State stations. On normal tests with this particular valve 45 to 60 volts applied to the plate gave wonderful results. The aerial used was about 70 feet long overall and the earth the usual waterpipe connection.

Tuning.

All three adjustments on the panel will be found very critical. The Bradleystat needs some care, as does the Bradleystat, and it is the correct adjustment of each of these units in conjunction with the condenser that will give such wonderful results. The local stations will have a really wonderful volume for one valve, surprisingly good indeed, but it must not be overlooked that the Bradleystat is really the making of the receiver. You will notice when tuning in that as you turn the Bradleystat up, feeling more im-}

Fikles are Aristocrats among Batteries.
LETTERS ARE STILL coming in praising the broadcast of the "Bhilah" concert, which was conducted by the Philharmonic Society. ZFC, who arranged this broadcast, desire to thank the many Fred listeners who helped by forwarding the price of a ticket.

The honorary secretary of the Philharmonic Society says: "If the Philharmonic could be induced to contribute in this way, I am sure different organisations would have no hesitancy in allowing the performance being broadcast."

INTEREST is now centred on the new studio orchestra, which is playing on two nights each week from ZFC. It is hoped by the management that the studio orchestra will mainly play request numbers, and to this end listeners are again invited to communicate with the studio, stating what type of music they would like the orchestra to render.

THE MANAGEMENT OF ZFC are now arranged for a full dance night on each Thursday evening, commencing at 9.30 and running through till 11.45. A special studio dance band has been installed for these nights, and a programme of popular vocal items will fill the short intervals between each dance. This band will also play request items given due notice.

ON THURSDAY of each week from 8.30 to 8.35 the new ZFC first orchestra will be heard on a popular programme of dance music. Request numbers will be played if rejoinders will give due notice of their requirements.

A BRAZIL SCOTCH NIGHT. On Monday evening, January 2nd, 1927, a Scotch Night will be broadcast by ZSF.

COMPLETE ARRANGEMENTS have now been made for the description of all the interstate cricket matches to be played in Sydney during this season. For this purpose, station ZFC has been made available to retransmit the services of Mr. A. G. Hoye, the well-known cricketer, who is also the sporting editor of the "Daily Telegraph."

A VERY SPECIAL PROGRAMME was arranged for listeners by station ZFC for Christmas Eve from 8 to 9.30 p.m. A service of carols was broadcast from St. Andrew's Cathedral by courtesy of the Dean of Sydney. At 9.30 p.m., a version of the pantomime, "Cinderella," was staged in the studio. The pantomime had been written by Captain Halliwell and was produced by Scott Alexander with a full company of ZFC artists. At the close of the pantomime, dance music was played until midnight. At 12 o'clock station ZFC broadcast a programme which has been arranged by ZLO, London, for reception in Australia, and this ran until 2 a.m. The British Broadcasting Company arranged to open the programme with the chimes from London's Big Ben, and closed with the striking of the same clock. The programme consisted mainly of band music from one of England's leading military bands.
Sets Tuned from a Distance

A novel device enabling any sensitive modern receiver to be remotely controlled without wires has been invented. Details are given with article below.

An electrical device contained in a little box which can be carried anywhere in the home is the latest development in radio controls. The invention has been patented and the inventor has obtained a world-wide patent coverage. The device is designed to operate a receiver with a momentary push of a button, or a touch of a switch, or by the use of a remote control box which is connected to the receiver.

The invention consists of a small box containing an electronic circuit which can be remotely controlled. The box is designed to be placed in a convenient location in the home and is connected to the receiver by a wire. When the box is activated, it sends a signal to the receiver which can be used to control the volume, tuning, or other functions.

Operation of the System

A control box is connected to the receiver by a cable. The box contains a small transistor and a battery. When the box is activated, it sends a signal to the transistor which in turn sends a signal to the receiver. The receiver is then controlled by this signal.

The box contains a tiny transmitter which sends a signal to the receiver when activated. The signal is picked up by the receiver and used to control the volume, tuning, or other functions.

It is simple matter to apply a head-phone to any part of the box found in the most distant part of the home, and to operate the receiver from it. The box is designed to be attached to any wall in the home and is controlled by a remote control switch.

The invention is a small box containing an electronic circuit which can be remotely controlled. The box is designed to be placed in a convenient location in the home and is connected to the receiver by a wire. When the box is activated, it sends a signal to the receiver which can be used to control the volume, tuning, or other functions.

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Radio as a Boon to the Deaf

When radio broadcasting was young and radio news first took an important place in the newspapers, every paper featured, radio editorials were begun with all sorts of curious letters—questions, generally. Radio was looked at as a panacea for all human ills. Some asked the value of radio for the farmer, the invalid, the child, the housewife, the blind. But one day there came a letter asking what promise radio held for the deaf. The writer was puzzled—she might have been had some one replied what promise shining pot-holes held for the blind—and he could not answer.

However, subsequently came reports from many directions that radio was really a boon to the deaf. That with hearing-impaired persons who had for years been deprived of musical and spoken entertainment could enjoy those things. And scientific testimony gave reasons.

The ear of hearing is in the brain and transmission between this and the middle ear—which is a radio system might represent the pickup wires or normal middle ear to the nerve of hearing. In the normal person sound is transmitted to the nerve of hearing through the inner ear and the skull via a series of bones.

Dr. Curtis H. MacRae, a noted specialist, says that this letter is just one among many that minister to deaf people who cannot hear ordinary sound under any circumstance. The deafness is transmitted through the head. The rage, pressed tightly against the ear structure transmits the sounds directly to the nerve of hearing through the bones of the head. In relation to this he tells the following interesting story.

Several years ago the late Lord Lewes, and his brother, experienced some of this happy surprise when they were smoking a pipe in the sun. Mr. Chapple anticipated the voice. A small radio set had been constructed for the occasion and set up in a room over the editorial office of the National Magazine, from which he had edited. Lord Lewes himself and his staff were建设工程 in the radio programme being broadcast from the recent station at Medford, Illinois.

The wireless weekly : the hundred per cent Australian radio journal

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WIRELESS WEEKLY

Radio as a Boon to the Deaf

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"Durgan" spells "Quality; Life; Service."

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"Durgan" spells "Quality; Life; Service."
At 3LO

News & Notes of Current and Coming Events at the Melbourne Station

Character from Handwriting, 3LO, Melbourne, was recently OF the Victoria Police, has arrived at 3LO, Melbourne, and is busy writing for the benefit of the station. He will be a centre for the Melbourne Hospital, including some of their ordinary handwriting.

GOLDEN RULE: The old year is dead—the New Year will soon be born. Let us renew that we are treated one another New Year’s Day on which to begin afresh in our

in our station, but reasonably, judging that we must ever carry with us our past and rejecting that we may make the future better because of the past.

FLEET CORTLISH: Listeners will be glad to hear that Arthur Coulthard, one of the station’s most popular and musical programme, has joined the staff. He is a brilliant performer and has a reputation for good taste in music. His programmes will be presented weekly.

THE NEW YEAR: Many special programmes are to be introduced by 3LO in the New Year. One of the most interesting will be the presentation of a new serial, “A Tale of Yesterday.”

You can Recharge a Philco for a few pence.
Lynch Bellringers for 3LO

"Ring Out the Old—Ring In the New."

It is indeed appropriate and reasonable that the celebrated Lynch Bellringers should be engaged for a season of broadcasting by 3LO, Melbourne, commencing on the second day of the New Year. There is no need to dwell upon the remarkable artistry of this famous family's bell-ringing. It is unique. They have charmed record audiences in four continents for many years and wherever they go—whether it be to Bombay, Yokohama, Ceylon, Singapore, Bangkok or Hong Kong—they receive the same enthusiastic reception as they do in their own country—Australia.

And now they are going to broadcast from 3LO, Melbourne. The musical tones of their bells and glockenspiels ("angular whistlers" as it has been called) and the immense size of the orchestration give, as well as the bell-ringing melodies of the Martinus Bellringers, should be admirably suited for broadcasting.

There is something peculiarly fascinating and thrilling in the chime of bells—some indescribable magic that gives the very heartstrings peculiar markings of the pulse—tones of bells ringing across sweet meadows or over rugged mountains or through the mysterious woods in the beauteous beauty of the evening stilly. This charm should be translated by broadcasting with rare atmosphere and effect, bringing it to those thousand of listeners to 3LO, Melbourne.

ON SUNDAY, JANUARY 1ST (New Year's Day), the morning service broadcast from Repton Presbyterian Church, to 3LO. At 9.30, a record service for children in place. Preliminary, by courtesy of H. W. Grundy, glockenspiel on information service. At 11.15, the Bible Class conducted by Mr. W. L. Haynes (Salisbury), followed by Pleasant Sunday Afternoon, with the Repton Central Methodist Mission. At 12.30, the Children's Service, followed by the service broadcast from Repton Baptist Church. At 3.30, (but will be delayed by Mr. Alfred Winyard (Geelong)), Mr. Geoffrey Reid (organist), Miss Patricia Hartley-Patterson (organist), Mrs. Mary Ross (organist), Mr. Horace Truscott (organist), Mr. Frank Hatcher (organist), Miss Mary Neil (organist), and close down at 3.45 p.m.

RUBY SYKES LYON, Referee and Director of 3LO's radio station, is widely known as a wire of delightful charm and character. For seven years she has been a feature of 3LO's daily programme, and many of her productions have been broadcast by 3LO with considerable success. An entirely new series will be commenced shortly and the readers of them will be in the capable hands of Maurice Dudley, and Jilly Bunney, at 3LO. These are sure to delight not only the many thousands of children who listen in regularly, during the children's hours, but also the large audience of grown-ups, who will relish the Peter Pan chapter, which promises to turn into 3LO whenever they get a chance to enjoy with the children the fairy stories and deals, month of Jilly Bunney and the other story tellers.

RUPERT HAZELWOOD, Returns: Probably the most prominent person who has been frequent in Rupert Hazelwood's, the radio, much a remarkable "hit" at 3LO, Melbourne, early in the year. Since then he has toured extensively in Australia, and has had many thrilling experiences in his land of birth. Now he has returned to Australia, and is eager again to broadcast from 3LO, but before doing so it is compelled to fulfil certain valuable engagements in Melbourne and Sydney. He hopes, however, to be at 3LO in the New Year, together with "the little granddaughter," Miss Kaye Day, and an entirely new programme. They called at the studio, Melbourne and Rupert Hazelwood expressed very happy thoughts. "Everybody happy—that’s the idea." Possibly the violinist, and everyone happy indeed.

SEEING THE OLD YEAR OUT

The old custom of ringing the old year out under the clock at the C.P.O. is evidently dying out. It is an odd order of things is appeasing well. Each New Year's Eve, since the re-naming of broadcasting to an important date at the studio of 3LO, Melbourne, the last year, and this year it is expected that there will be an enormous crowd in Melbourne. Three outside of the new 3LO studio is heard to the music in the New Year's Eve programme by Jolly Zdena and to close in the midnight striking of Auld Lang Syne.

BELIEVING that the time has arrived, when the star artists from 3FL should be accompanied by a full orchestra, the management has now asked Raymond Ellis, the British National Opera Oratorio, and Hubert Carter, the eminent New Zealand tenor, to arrange a series of programmes in which they are to be accompanied by the orchestra. The series is to be continued at broadcast times, when these artists will arrange programmes.

2BL'S POPULAR DANCE NIGHT:

Many hundreds of letters have been received from the appreciative listeners regarding the innovation introduced by 2BL in the form of a full dance programme every Saturday evening. The owners of 2BL are two degrees of holding dances, and parties at radio houses may accommodate their popular functions and dance to the strains of the music from the Wentworth Cafe, at a Saturday evening.

GRAND OPERA FROM 2BL:

Beginning the love of grand opera, and in view of the season that will take place early in the year, Mr. G. Vert, Barnett is commencing a series of grand opera nights from 2BL, which will embrace all the favor of solo works, duets, ensembles from German, French and Italian opera. There will be a brilliant season, by Mr. Von Barnett rendering the known masterpieces. The artists already engaged are: Miss Leonora Scott, who is famed for the finest rendering for German, and Miss Maxwell Horlau, who is well-known for her beautiful rendering. Everybody happy—that’s the idea.
Looking for Trouble

Now for the Gadgets.

So much for that. If none of the tests reveals the breaking place of the wire, it seems safe to look for it elsewhere. For instance, the valveucs may be due to some broken or damaged apparatus inside the set, due to some physical cause, for instance, or a leaky land conductor. But nowadays such difficulties are so infrequent as to be negligible.

Let us conclude then that the set is functioning properly, so would be its soundness. Then the next step may be undertaken with a light heart and no apologies.

2. Note if any household appliances such as fans, electric fuses, Victrola machines and the like are turned on. If so, turn them off and make a note of it, as this may affect the loudness of the receiver. Of course, too, there's no more to be expected from a receiver that has been affected by light rain and convenience facilities.

In flat buildings where there is a physical connection it is obviously impossible to make this test through a wire, so an outlet to an unloaded battery charger—as has been shown in our previous number—is quite capable of revealing what the block may be. In many a search for interference and disturbances of the receiver it may be necessary to remove nothing by a mere inspection of light rain and convenience facilities.

In flat buildings where there is a number of apartments it is obviously impossible to make this test through the wires. A test on one of the apartments in the block may be affected by the wire from the next apartment. If you have two apartments and the like are turned on, if there is a note of it, as this may affect the loudness of the receiver. Of course, too, there's no more to be expected from a receiver that has been affected by light rain and convenience facilities.

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The wireless weekly: the hundred per cent Australian radio journal

The matter seems worthy of discussion under a chapter heading of its own. One hates, really, to go on with it. After all this preliminary—making an important business of homes and such like—it seems really a shame to admit that it isn't actually important at all—that news can be dispensed with more with a couple of sticks of chewing gum and a lump of coal.

The Elimination Process.

Getting down to cases in the matter of shifting interference, one discovers that the whole process is merely an application of filters.

Two years ago you might have hesitated to mention the word "filter" before a large and varied audience. At that time a filter was supposed to be a little bank of series that changed the frequency of the current set down, what then?

But, so far as you have your regular and local power company, you have no such service. For the reason that the whole process is nothing more than a "filter"...
Programme Features

ANOTHER INNOVATION at 2FC is the introduction of a fine instrumental trio consisting of Reginald Study, violin; Jules Van der Kist, viola; and Peter Unight, piano; who will play every Tuesday and Friday afternoon from the studio. Here again the management of 2FC is anxious that music desired by listeners will constitute the programme of this trio and requests that the public will make its wants known.

FOLLOWING the fine programme to be given from the Sydney Town Hall by the Commonwealth Air Band on Christmas Night, a special selection of orchestral and vocal music will be transmitted until midnight. Promptly at 12 o'clock 2FC will commence a programme for relay by 2LO in England. After the address at Sydney's Big Ben, a service of carols will be broadcast from St. Andrew's Cathedral. At 12.30 the studio programme will commence, when the 2FC full orchestra will perform, and will also accompany Raymond Ellis, Herbert Carter and Peter Gawthorne, in a series of seasonal gems. Messages of greeting will be sent to Britain from the Governor-General, the State Governor, the Prime Minister and the Premier.

WIRELESS WEEKLY

ON 5TH JANUARY, 1926, John Lane, actor, will give some of his old English songs and wartime work from 2AB, this time of starting making a pleasant variety in with the modern music.

2FC ANNOUNCES a slight alteration in the transmitting hours. On Monday and Wednesday nights the station will, in future, close at 11 p.m., while on Tuesday, Thursday, Friday and Saturday nights, the evening session will be extended until 11.45 p.m. No alteration has been made in the Sunday night programme.

PERFECT TRIP TO TASMANIA! It is a pleasure to say that one of the most esteemed men in Melbourne a few weeks ago was Mr. Basil Rothamal, of Collins, the winner of the tennis competition organised by Studio 2AB, the prize for which was a Free Trip to Tasmania. As the conditions were no escape—one had merely to send in the number of winners, and the number of their nearest upwards of twenty thousand entries came in and—out of the mountain of entries, Mr. Rothamal's proved to be the winner. This fortunate gentleman is an English migrant, and in the fact that he lives as a foreman in the Lionel Mills seems him very happy throughout the year—he has not yet had time to pay a visit to Tasmania, therefore his holiday excursions will be all the more welcome.

Miss Mille Stewart, who, assuming on Wednesday, December 14, and continuing three times a week, entertained the children at Xmas from 8.30.

Perfect Reception Every Day Possible with Failco.

Jack Win, versatile entertainer at 2FC, who is a winner of a hat for new posters and pages.

COLOURED HARMONIST: One of the town artists and unique musical forces broadcast from Studio 3LO is the noted entertainer, "The Four Coloured Harmonists of Harmony," as their name implies, they specialize on Old London Negro Melodies—making a great feature of the "Blackbirds," which were introduced by Melbourne audiences some three years ago by Miss Edna Thomas. It would well be "deseased" to appreciate the fine rendering of "Four Old Joe" in the fall—the facial expression of the will always being particularly good—but the ears of all listeners were delighted with such numbers as "I've got Shown" and "Isn't it a shame to work on Sunday," and a specialty "Wedding Quartette," in which the harmonics were cleverly blended.

ON WITH THE DANCE: "On with the dance—let joy be unconfined" will be the keynote of the entertainment of Studio 3LO on New Year's Eve—say, following the new established custom, the shutterers will invite the staff and their friends to trip it merrily till the winking hour of midnight, when, in the accompaniment of bells and the twanging of "Auld Lang Syne," the Old Year will be ceremoniously ushered out and the New Year welcomed "in." Those who have been fortunate enough to enjoy the hospitality of Studio 3LO in the past—this is the third New Year party—know the delightful time in store for them, and it is safe to say that the received invitations will be "accepted with thanks."
You've Been Waiting For
THE
"Eco Short Wave Adaptor"

WHAT IT IS—A Complete Short Wave Receiver, which, when attached to your present Broadcast Set by means of a special plug-in adaptor, immediately converts it into an efficient short wave receiver.

WHAT IT DOES—Adapt your Broadcast Set to such Short Wave Stations as PCJH (Holland), 2LO (London), WGY (U.S.A.) at Loud Speaker Strength, Wave Range 25 to 26 Metres.

Build the "ULTRAUDION"
FEATURED IN THIS ISSUE
Here are the Parts:

Price: £5-17-7

The Wonderful QUAKER Condenser
Brass Plates One Hole Fixing Compact

THE "SAMSON" 21/-
Fresh "B" Batteries For You
45 Volts Heavy Duty

THE ECONOMIC RADIO STORES
PARIS, MELBOURNE, SYDNEY, NEWCASTLE
Orders and Trade enquiries to: Mr. F. D. White, Managing Director, 693 George Street, Sydney. Postal Orders Payable on Sydney. Tel: "ECONOMIC" 6413.
THE SELECTREX 4

We consider that this set is one of the very best four valve receivers ever described to the Australian Public. Of its performance we need say no more than that it is much more selective than the Browning-Drake, and a better "distance getter." Its adaptable features make it the ideal set for both the city and the country enthusiast. The very beginner need not fear to attempt the construction.

By Walter R. Hardy

Its Outstanding Features.
The most striking feature of this set is the high degree of selectivity that is obtainable, and the convenience of being able to vary in particular programme without annoying interference. In this connection it should be noted that the type of circuit used was developed to avoid all magnetic nature, and a number of new features were then introduced in order to effect further improvement. The first step was to keep coupling the coils within the first pair of valves, where the want of uniformity is generally well known. This greatly increased the ability of the set to separate the various stations and allowed the regeneration on the detector valve to be pushed to the utmost when required. Selectivity was then again increased by applying a similar form of coupling between the coils that fed the detector valve, and then this coupling was made adjustable so that it could be varied to suit the particular location in which the set was to be used. This made it possible to adjust the set so that it could be used to full advantage, but in the near vicinity of a high powered broadcasting station and to the country, where interference is unknown.

The efficient method of neutralisation which has been adopted permits of reaction being pushed to an extreme, thus giving the set the power of the highest selectivity, and reducing the volume from the detector station. The radio-frequency amplifier is kept under perfect control, and there is no danger of the set "running" or radiating and annoying the neighbours.

Tuning is a two handed operation, and does not call for the perfection of a third arm, nor any particular agility. There are three controls, the "tuning" control situated on the right hand side of the set, and the "sensitivity" and "tuning" controls are set so as to secure the required selectivity, the "sensitivity" control permits the right hand to be somewhat critical and is therefore fitted with a screw-dial. That which is operated by the

The battery switch of the push-pull type is provided, by means of which the set may be switched on or off at will. This breaks the A and B battery circuits at the same time, and thus the set may be simply turned on and left indefinitely, without any loss of settings from either of the batteries. Of its performance we need say little more than what has already been said. It was found that the interference stations could be overcome, and the selectivity and selectivity strength. Whilst it was going full blast, it was stated, on the basis of a test, that the set could be obtained

America's Submarines all use Burgess.

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Friday, December 30, 1927.
Wireless Weekly

America's Submarines all use Burgess.
seen from Fig. 5, and they should be all accurately placed before screwing to prevent them from falling down to the board.

Remember not to place them too near to the front edge, as a clear margin of 2 inches should be allowed between it and the front of the valve sockets in order to leave room for the connecting jacks, and wiring. The valve sockets and transformers should be screwed down the terminal board.
board fitted to the basic edge, and the choke coil attached by means of two small brassen or grid link clips.

Cells L1 and L2 should next be attached. These may be screwed directly onto the baseboard by means of a small screw at either end; but it is strongly recommended that all cells be raised well above the board. This can be easily done by securing some small wooden blocks or suitable tubing and cutting it off 1 inch below. Braces being, 1 inch long, are passed through the ends of the forms and then through the spaces of tubing which act as long washers. Similar pieces of glass, wood, fibre, or rubber, may be easily obtained.

Cells L4 and L5 should be mounted in the same manner, remembering that room must be left so that L6 may be moved to and from L4, over a range of about 33 inches. L5 should be temporarily fixed near the end of L4, as the coupling between these cells will be adjusted at a later stage. The neutralising condenser should then be increased down to the position, and the grid and by-pass condensers should be set out in the positions indicated.

Wiring.

The experimental apparatus will probably prefer to carry out a large portion of the wiring before attaching the panel to the baseboard; but the beginning is advised to secure the two together and then proceed in the order given below. At each connection is completed, the corresponding battery should be switched on or off, and any short-circuit condition should be avoided. The operation of the apparatus in case of comparatively small errors may prove costly.

Connect all the wires on the wire diagram (Fig. 2); but the rest of the system is up to the point to put in the terminal board and to try to make and then return to the other end, making sure that the correct connections are made, are made for ease of making.

The wiring can all be done on the wire diagram (Fig. 2), but the rest of the system is up to the point to put in the terminal board and to try to make all the right angle bends which have to be introduced by the draughtsman in order to avoid confusion. Note that this process is not done, but rather run into each other, are to be joined where the soldering of the joints is simply represented by a heavy black mark. Where the wires is shown in broken lines it means that the latter should be done in a part of some apparatus.

A detailed list of the connections is as follows:

Filament Circuit: Join R1 to R2 to F to L1 to A in the terminal board. Join the other terminals of the filament as follows: B to R7 to F to P of CL, B2 to P of CL, and R1 to F of both AL.

Join the P of of CL, V4, and V2 to the nearest terminal of the battery switch. Connect the filament leads to these terminals of CL and join the other filament lead to P of of V4. Join the remaining terminal of the switch to A on the terminal board.

Cell L1: Join near end of the panel to the P of of CL and fine plates of CL. Join other end to F of of CL, and also to one end of BC.

Cell L2: Join other end to GND, and near end to ANT on the terminal board.

Cell L3: Join right hand end (looking from back) to lock, then on to grid, BC, and connect fixed plates of CL to G of V1. Join centre tap of L3 to remoting end of R1G and to B of AMP at the terminal board. Join the left hand end of L3 to P of V3.

Cell L4: Join right hand end of L4 to the wire which connects to P of V2, and this wire also goes to the moving plates of V2. The other end connects to G and to the fixed plates of CE. Join remaining end of L4 to G of V2.

Cell L5: Connect inner end to P of V3 and to either end of CE. Join other end of L5 to the fixed plates of CE, and join moving plates of CE to the wire which runs to P of V2.

Transformer T1: Join P to remaining end of CL, B to B DET on the terminal board, G to G V3, and F to A — lead, which connects the photograph.

Transformer T2: Join P to inside upper leg of G1, B to B DET of V1, G to G V3, and F to A — lead as in T1.

Jacket: Join remaining terminal of G1 to inner terminal of G2 to B — and position. Connect re-making plug of P2 to P of V4.

If the above directions have been carefully and correctly carried out, the set will now be completely wired, and it only remains to connect the system and the batteries, and to attach the speaker. Care should be exercised in linking up the batteries, for many an enthusiast has found his wire-bound speaker disconnected. Do not let the B battery touch any wires or terminals except those to which they should be connected.

Adjustment.

Before the set is fitted for normal use it will be necessary to adjust the coupling between L2 and L3 so as to get the degree of selectivity called for in the particular locality where it is to be used. Where practically no interference is experienced L1 should be placed fairly close to L4, but if a high-powered broadcasting station operates in the neighborhood it may be necessary to separate the two adjacent ends of the coils by a distance of up to 14 inches. It should be noted that any alteration of the coupling between L2 and L3 will probably mean that it necessary to re-adjust the neutralising condenser.

Neutralisation is carried out in the following manner: Tune in one of the broadcasting stations, preferably a weak one, using the neutralising condenser to produce a crackle or whistle from the carrier-wave. Then turn the neutralising condenser so that its moving plates are not interleaved with the fixed ones, and note whether the signal can still be heard by re-adjusting the other condensers.

If it can still be heard it will be found necessary to increase the capacity of the neutralising condenser until the whole signal disappears. The set should then be tuned to see that the controls can be adjusted deep enough to carry the signal under theough the faintest indication. Should this occur at any point it will be necessary to further increase the capacity of N.C., but it should be remembered that signal strength is lost by over-neutralising.

A good test to determine whether neutralisation has been properly carried out is as follows: Set the tuning outside at about 10 to 15 degrees and then adjust the neutralising condenser so that the signal is just lost outside the range of oscillation. The first condenser should then be turned until the receiver carries the lower limit of its range, and it should be noted whether there is a crackle or "flick" in the signal when the second condenser is adjusted. This method can be used to rapidly and the correct position of the neutralising condenser.

Operation.

After a few minutes of experi-
ence will each master and ar-
rer any tuning difficulties met with. By searching for distant stations, the operator should cause the set to become by means of CL and then tune carefully with C1 and C2. Oscillation can easily be detected by the peculiar radial sound caused; or by the fact that the signal gives a loud "play", both when the finger is placed on the grid terminal of V2 and when it is taken away again. When a carrier-wave can be tuned in at a high pitched whistle the reception should be gradually reduced until the transmission can be heard from a distance, preferably a weak one, using the neutralising condenser to produce a crackle or whistle from the carrier-wave. Then turn the neutralising condenser so that its moving plates are not interleaved with the fixed ones, and note whether the signal can still be heard by re-adjusting the other condensers.

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When Grid Current Causes No Harm

E"V"S since the advent of the first transformer-coupled valve radio apparatus, we have always grumbled against the presence of grid current in the grid-lead circuit of the valve. We have often been informed that grid current causes tube damage and a change in the signal wave form, a reduction in the valve amplification, in general, everything detrimental to good radio amplification. In fact, all this has been charged against permitting grid current in any amplifiers.

Now we hear of a new system of radio amplifiers in which grid current is permissible, in which the amount of grid current usually encountered with the disadvantageous results in a transformer-coupled audio system, has no effect upon the wave form or amplification. This new theory of amplification is propounded by E. E. Miller, and contains the usual double independence amplification.

The presence of grid current is usually considered an indication of valve overloading, and is made audible in the loud speaker by a knocking or blaring sound on certain frequencies. With this new system, it seems as if this form of annoyance is removed. The reason for permitting a certain amount of grid current is founded upon the fact that the grid current changes the grid bias current circuit when grid current is present. This system has one primary circuit of the coupling unit in the system of amplification. Similarly the amplifying operating characteristic of the grid choke altered until the grid amplification resistance is doubled.

(Continued from page 10)

Struck By a Dumb Futility

Many articles have been written on the subject of "what it really is like to hear the microphone first time," but none have seemed to me to accurately portray the situation than that written by Francis O'Connell, the Irish novelist.

"In the studio there is perfect silence. You must begin. And for two minutes you are struck by a dumb reality. How do you know that anything is listened? This audience is in a blank. It is immense. It cannot clap or hiss or say "Hear, hear!" For all you know, everyone has gone away to dinner and you are about to blunder in the void. This think yourself to be accountable that you expect yourself to believe in something totally outside your imagination.

"It is like a dive. In the way that a diver must say good-bye to his serving room and leaves his body into the air, so must you pass from the mere feeling of silence and laugh into speech. With a rushing and breathless anxiety you give your words into space, and what you are saying flings by you unscrambled like telegraphic notes from a train window. This is a strange confusion. You know you have actually begun to speak, but what exactly you are expressing, what the words are conveying, is not to your mind. In the first moment you have more sensations than you can deal with. This plunge is heavy, lurching, disorienting. You have broken with the light of a lifetime, have lost the earth. "Wondrously you have spoken in public you have had your victims before you. They looked at you, you looked at them; they coughed if you bared teeth, and when they fell asleep you could enjoy their peaceful expression."

"After the first few minutes, what you want to say may start growing, and you deliberately want to communicate of these invisible listeners exactly what you have felt. As this condition increases, the act of speech becomes more natural and more amusing. You are sufficiently courageous enough to look at the clock, which is gleaming on you, and you dare not glance away from the microphone and it should fall back on you."

The time is over; you are no longer gripping the wire and saying; you begin to take your strokes, to find a rhythm, to swing. And as you do this, the faculty of your own speech gradually becomes. You are now present. You are now present."

"Then the pleasure of speaking to invisible listeners begins to gain on you. Can they escape from you? You don't believe it. The disease which attacks all speakers restless on your vocal mechanism. Your words begin to swell. You feel you have a good deal more to say, and you turn away so that the ugly, snarled words can no longer do you."

"Several articles are written, up at this point, and make formidable gestures. You plead: They threaten. They despair."

WHAT IS THE PHOTOCHEMICAL CELL?

Here the latest of books gives me definition of this invention, which shortly will become General through its relation to television. The photocell is a vacuum tube which is extremely sensitive to any change of intensity of light falling upon it, due to the fact that its internal resistance varies with the intensity of the light striking it.

The present of the cell is illustrated to me in many ways, such as in sending messages, in photographing, in taking motion pictures, improvement in the manufacture of photoelectric cells, and in accurately matching colors.

Except for a small area, the inside of the bulb consists of metallic patination. Depending on the amount of light striking it, the inside of the bulb becomes more or less transparent, passing through the cell.

DO YOU KNOW WHAT? What do the little T.F. represent? It is a French abbreviation for "photographie" which is "photography" in English. You can easily recharge a photo for a few cents.
WITH THE TRADERS

ARIZONE PORTABLE.

The recent vogue for portable receivers has brought to light many original designs, and amongst the most interesting of these is the Portable Four Valve Receivers, manufactured by "Auroras," Limited, Sydney.

The most striking feature of this set is the panel, which is of highly polished aluminium, provided with engraved aperture to allow the four valves to project, giving, with the aid of the black dials, a most pleasing appearance.

The speaker and batteries are contained in the compartment below the receiver unit, and access is easily attained by pulling open the speaker panel, which is hinged.

An inspection revealed that the batteries comprised these two volts for A supply, two 4.5 volt's and 4 volt's C, but we understand that the manufacturers are also marketing a model containing an amply sized accumulator.

A pictorial diagram showing the battery connections is included in the compartment, and with its aid there should be no difficulty in the most inexperienced replacing the batteries.

The loop aerial is completely concealed in the lid and provision is made for connecting an aerial and earth to the receiver, although in most cases this will be found superfluous, as under favorable conditions excellent interference reception can be obtained with the loop alone.

The receiver is very compact, measuring only 11cm. square and weighing 9.8lb. This, combined with its high-class finish and excellent performance, should make it immediately popular on account of their compactness and accessibility for compacting purposes, combined with the extraordinary small amount of room required for the assembly, which is in no way detracts from their efficiency or a switch. The set screw on the flake-like knob acts as an indicator, and a stop is incorporated in the switch so that it cannot be turned beyond either the "On" or "Off" position. It operates on the same principle as the plug and jack, that is to say, by turning the knob, two contact strips are brought together, the actual point of contact being made of sliver andNecklace of cord. The usual electric lamp uses 266,000,000,000 times as much current as the amount represented by a single division on the scale of this instrument, which is so sensitive that it has to be mounted on jewel bearings.

HOW THE LOUD SPEAKER GOT ITS NAME.

To hundreds of thousands of homes, the name "loud speaker" is so familiar that it is almost a foregone conclusion that you understand what is meant by it. Yet, when a new instrument is under test, the experts are found wondering how it was so-called by the late Alfred Graham, inventor of the prototype of the loud speaker, first called it the "Lead Speaking Telephone," and later, in 1903, changed it to "Lead Talking Apparatus." In 1904, Mr. Graham made the acquaintance of Professor McKendrick, of Glasgow University, who became associated with him in several subsequent experiments. Professor McKendrick, in his lectures, incidentally referred to the instruments designed by Mr. Graham (who, by the way, originated the firm which produces the so-called "Amplified Loud Speaker") as "Electrical" or "Telephonic" Loud Speakers, and thus to a Scientist being the credit for coining the most universally used expression "loud speaker," though in America the term "table talker" is rapidly increasing in use.

ADVANCE S.L.F.

There is no doubt that the straight line frequency type of condenser is the most universally used in present day radio circuits, and many brands of S.L.F. Condensers are now on the market.

We have recently tested a sample of the "Advance" S.L.F. Condenser, manufactured by the Radio Department of Australia, Pty. Ltd. This condenser is built throughout in the company's factory at North Melbourne, and designed especially for Australian conditions.

The plates are cut from the best aluminium and are mathematically accurates, being moulded so as to give perfect rapidity, thus eliminating all end play.

Needless to say, the tuning is everything that can be desired, all broadcasting stations being received without any "hissing." These condensers are obtainable in capacitance of 0.0025, 0.0036 and 0.0048 from all Radio dealers.

SATURN FILAMENT SWITCH.

Advice is to hand from Amalgamated Wireless Asia Ltd., of Wireless House, 47 York Street, Sydney, who inform us that stocks have now been opened of the new Saturn Filament Switch.

"Burgess" spells "Quality; Life; Service."
What Quick Test Will Reveal a Good Battery?

Some Interesting Information.

This is something not only Radio enthusiasts but the public in general, and I am sure that someone with some expertise would be more than willing to perform these tests.

Mr. R. M. Davies, who is the man behind Burgess Battery Sales in Australia, has written quite a number of articles and has written in his own words what his experience has taught him in this field.

The author is aware that there are many people who, while they may be interested in the field of radio, do not have the time or the patience to perform these tests. However, he feels that it is important to be aware of what the tests can tell you about the battery you are using.

A. What Quick Test Will Reveal a Good Battery?

For the purposes of this article, we will be looking at the performance of a good battery. The tests that we will be discussing are:

1. Voltage measurement
2. Amperage measurement
3. Resistance measurement

These tests are quick and easy to perform and will give you a good idea of the quality of the battery you are using.

A. Voltage Measurement

The first test we will be discussing is the voltage measurement. This test is performed by connecting the battery to a voltmeter and measuring the voltage output. A good battery should have a voltage output of 1.5 volts, while a bad battery may have a voltage output of less than 1.5 volts.

B. Amperage Measurement

The second test we will be discussing is the amperage measurement. This test is performed by connecting the battery to an ammeter and measuring the amperage output. A good battery should have an amperage output of 0.5 amperes, while a bad battery may have an amperage output of less than 0.5 amperes.

C. Resistance Measurement

The third test we will be discussing is the resistance measurement. This test is performed by connecting the battery to a resistance meter and measuring the resistance. A good battery should have a resistance of less than 0.1 ohms, while a bad battery may have a resistance of more than 0.1 ohms.

These tests are quick and easy to perform and will give you a good idea of the quality of the battery you are using.

Electric Facts

When we consider what radical changes have taken place in this world of ours in the last hundred years, it is easy to see what has happened in the last hundred years. There are many things which were unknown in the past that are now commonplace. One of these is the electrical revolution.

The use of electricity for household purposes took many advances during the twentieth century. Morse produced the telegraph in 1835, but he was not the first to use electricity for this purpose. In 1845, Samuel Morse invented the electric telegraph, which allowed people to communicate over long distances.

In 1876, Alexander Graham Bell invented the telephone, which allowed people to speak to each other over long distances. This was a revolutionary invention, as people could now communicate with each other from a great distance.

The telephone was followed by many other inventions, such as the radio, television, and computer. These inventions have changed the way we live our lives.

The Slightly Easy Plate is Supreme.

In conclusion, the use of electricity has brought about many changes in our lives. It has allowed us to communicate with each other over long distances, and has made our lives easier.

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XMAS "RADIO"

By far the best issue of the new "RADIO" is the Christmas issue containing the following features:

- DX, being a humorous treatise on long distance reception, by Charles D. Macleuran.
- HISTORICAL AND MODERN SIGNALLING. By Sidney F. H. Laws, General Manager of TEL.
- SOUTHWARD HO! Further adventures of Brouso.
- FOUR FAMOUS ANNOUNCERS, in caricature and print. Mead Laurence Halbert, Arthur Cockman, Alfred Andrew, and Maurice Dudley, face to face.
- HAS IT EVER OCCURRED TO YOU THAT MEN MONOPOLISE RADIO? A protest against the common belief that women are not interested in radio.
- THE STROBOSCOPE. A new right resolving circuit, embodying the principles of the superheterodyne and the Stereoscope.
- THE SIMPLICITY THREE. A receiver made possible by modern apparatus which gives clear volume on the loud speaker, yet remains simple to operate.
- THE SAMSON TWO VALVE RECEIVER. An inexpensive receiver remarkable for its astounding volume. An ideal receiver to build and present as a Christmas gift.
- DO YOU KNOW THE BEST SYSTEM OF AUDIO AMPLIFICATION? By R. C. V. Humphrey.
- THE GO-GETTER SHORT-WAVE RECEIVER. By Don. B. Knock (2NO).
- AMATEUR SECTION. A special expanded amateur section is published, which includes Ham News from all seven districts.

On Sale Now—The XMAS "RADIO" One Shilling
**BROADCASTING PROGRAMMES for the COMING WEEK**

**Friday, Dec. 30**

**2FC, SYDNEY.**

**Farmers’ Broadcasting Service.**

**WAVE LENGTH:** 442 METRES.


- 7 a.m.: No News and Announcements.
- 7:30 a.m.: Weather forecast.
- 8 a.m.: Ploughing Song (Shelley Brothers).
- 9 a.m.: Radio News.
- 10 a.m.: Music.
- 11 a.m.: Music.
- 12 noon: “Radio Breakfast” Programme.


- 2 p.m.: No News and Announcements.
- 2:30 p.m.: Weather forecast.
- 3 p.m.: Ploughing Song (Shelley Brothers).
- 4 p.m.: Radio News.
- 5 p.m.: Music.
- 6 p.m.: Music.
- 7 p.m.: “Radio Dinner” Programme.


- 6 p.m.: No News and Announcements.
- 6:30 p.m.: Weather forecast.
- 7 p.m.: Ploughing Song (Shelley Brothers).
- 8 p.m.: Radio News.
- 9 p.m.: Music.
- 10 p.m.: “Radio Dinner” Programme.

**N.I.G.H.T. E.N.G.I.N.E.E.R.**

- 11 p.m.: No News and Announcements.
- 11:30 p.m.: Weather forecast.
- 12 midnight: Ploughing Song (Shelley Brothers).
- 1 a.m.: Radio News.
- 2 a.m.: Music.
- 3 a.m.: “Radio Dinner” Programme.

**NEW SOUTH WALES “A” AND “E” L.A.N.E. BROADCASTING STATIONS.**

**N.S. W. R.A.D.I.O. S.E.R.V.I.C.E.,**

- 11 a.m.: Weather forecast.
- 11:30 a.m.: No News and Announcements.
- 12 p.m.: News from the “Daily Telegraph.”
- 12:30 p.m.: No News and Announcements.
- 1 p.m.: No News and Announcements.
- 2 p.m.: No News and Announcements.
- 3 p.m.: No News and Announcements.
- 4 p.m.: No News and Announcements.
- 5 p.m.: No News and Announcements.
- 6 p.m.: No News and Announcements.
- 7 p.m.: No News and Announcements.
- 8 p.m.: No News and Announcements.
- 9 p.m.: No News and Announcements.
- 10 p.m.: No News and Announcements.
- 11 p.m.: No News and Announcements.
- 12 midnight: No News and Announcements.

**BROADCASTER’S LIMITED.**

**WAVE LENGTH:** 503 METRES.


- 6 a.m.: No News and Announcements.
- 7 a.m.: No News and Announcements.
- 8 a.m.: No News and Announcements.
- 9 a.m.: No News and Announcements.
- 10 a.m.: No News and Announcements.
- 11 a.m.: No News and Announcements.
- 12 noon: “Radio Breakfast” Programme.
- 1 p.m.: No News and Announcements.
- 2 p.m.: No News and Announcements.
- 3 p.m.: No News and Announcements.
- 4 p.m.: No News and Announcements.
- 5 p.m.: No News and Announcements.
- 6 p.m.: No News and Announcements.
- 7 p.m.: No News and Announcements.
- 8 p.m.: No News and Announcements.
- 9 p.m.: No News and Announcements.
- 10 p.m.: No News and Announcements.
- 11 p.m.: No News and Announcements.
- 12 midnight: No News and Announcements.

**NEW SOUTH WALES “A” AND “E” L.A.N.E. BROADCASTING STATIONS.**


- 2 p.m.: No News and Announcements.
- 3 p.m.: No News and Announcements.
- 4 p.m.: No News and Announcements.
- 5 p.m.: No News and Announcements.
- 6 p.m.: No News and Announcements.
- 7 p.m.: No News and Announcements.
- 8 p.m.: No News and Announcements.
- 9 p.m.: No News and Announcements.
- 10 p.m.: No News and Announcements.
- 11 p.m.: No News and Announcements.
- 12 midnight: No News and Announcements.

**BROADCASTER’S LIMITED.**

**WAVE LENGTH:** 503 METRES.


- 3 p.m.: No News and Announcements.
- 4 p.m.: No News and Announcements.
- 5 p.m.: No News and Announcements.
- 6 p.m.: No News and Announcements.
- 7 p.m.: No News and Announcements.
- 8 p.m.: No News and Announcements.
- 9 p.m.: No News and Announcements.
- 10 p.m.: No News and Announcements.
- 11 p.m.: No News and Announcements.
- 12 midnight: No News and Announcements.
### Wireless Weekly

**2GB, SYDNEY**

**Theosophical Broadcasting Service, Wave Length, 510 Metres.**

**Friday.**

#### BURNING SESSION

1:30 p.m. : **Main Title**

2:30 p.m. : **Psychical News**

3:30 p.m. : **Health and Ect.**

4:15 p.m. : **Class change**

#### AFTERNOON SESSION

1:30 p.m. :  **Main Title**

2:30 p.m. :  **Introduction**

3:30 p.m. :  **People’s Fund**

4:15 p.m. :  **Class change**

#### NIGHT SESSION

2:30 a.m. : **Main Title**

3:30 a.m. : **Introduction**

4:15 a.m. : **Class change**

---

**2 UW, SYDNEY**

**Sandel Radio, Ltd.**

**Wave Length, 571 Metres.**

**Friday.**

#### BURNING SESSION

2:15 p.m. : **Main Title**

3:30 p.m. : **Psychical News**

4:15 p.m. : **Health and Ect.**

#### AFTERNOON SESSION

1:30 p.m. :  **Main Title**

2:30 p.m. :  **Introduction**

3:30 p.m. :  **People’s Fund**

4:15 p.m. :  **Class change**

#### NIGHT SESSION

2:30 a.m. : **Main Title**

3:30 a.m. : **Introduction**

4:15 a.m. : **Class change**

---

**3LO, MELBOURNE**

**Broadcasting Co. of Aust.**

**Wave Length, 571 Metres.**

**MORNING SESSION**

1:30 p.m. : **Main Title**

2:30 p.m. : **Psychical News**

3:30 p.m. : **Health and Ect.**

4:15 p.m. : **Class change**

### Inter-State "A" and "F" Class Broadcasting Stations

**10/0 Broadcasting Company of Australia, Ltd. Melbourne, wave-length 510 metres, power 250 watts.**

**10/A Broadcasting Company of Australia, Ltd. Melbourne, wave-length 510 metres, power 250 watts.**

**10/F Broadcasting Company of Australia, Ltd. Melbourne, wave-length 510 metres, power 250 watts.**

---

**Wireless Weekly**

*The wireless weekly: the hundred per cent Australian radio journal*
WIRELESS WEEKLY

Page Twenty-Nine

SHORT GELS

The wireless weekly: the hundred per cent Australian radio journal

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National Library of Australia
WIRELESS WEEKLY

4QG, BRISBANE
Queensland Radio Service
Wave Length, 365 Metres.

MIDNIGHT SESSION
1 p.m. - Martin reports weather information
2 p.m. - 2164 Wavelet
3 p.m. - 2164 Wavelet
4 p.m. - 2164 Wavelet
5 p.m. - 2164 Wavelet
6 p.m. - 2164 Wavelet

DAY SESSION
1 p.m. - Australian newspaper
2 p.m. - 2164 Wavelet
3 p.m. - 2164 Wavelet
4 p.m. - 2164 Wavelet
5 p.m. - 2164 Wavelet
6 p.m. - 2164 Wavelet

SUNSET SESSION
1 p.m. - 2164 Wavelet
2 p.m. - 2164 Wavelet
3 p.m. - 2164 Wavelet
4 p.m. - 2164 Wavelet
5 p.m. - 2164 Wavelet
6 p.m. - 2164 Wavelet

UK BROADCASTS:
1 p.m. - BBC World Service
2 p.m. - BBC World Service
3 p.m. - BBC World Service
4 p.m. - BBC World Service
5 p.m. - BBC World Service
6 p.m. - BBC World Service

FOREIGN BROADCASTS:
1 p.m. - BBC World Service
2 p.m. - BBC World Service
3 p.m. - BBC World Service
4 p.m. - BBC World Service
5 p.m. - BBC World Service
6 p.m. - BBC World Service

5CL, ADELAIDE
Central Broadcasters, Ltd.
Wave Length, 365 Metres.

MORNING SESSION
11 a.m. to 1 p.m.

AFTERNOON SESSION
1 p.m. to 2 p.m.

EVENING SESSION
2 p.m. to 3 p.m.

WORLD'S BEST RECHARGEABLE BATTERY: PHILIPS.
The wireless weekly: the hundred per cent Australian radio journal

WIRELESS WEEKLY
Friday, December 30, 1927

25.30 p.m.—Talk on Women of the Diet of all ages.
25.30 p.m.—Mural programme from the studio.
25.40 p.m.—G.P.O. Clock and Chimes.

EVENING SESSION
2.00 p.m.—Week’s News from the Trek.
2.05 p.m.—Mural programme from the studio.
2.10 p.m.—News from the “Trek.”
2.15 p.m.—Clock and Chimes.

Racing Results
3.45 p.m.—Results programme from the studio.
3.50 p.m.—News from the “Trek.”
3.55 p.m.—Mural programme from studio.
4.00 p.m.—Clock and Chimes.

3LO, MELBOURNE
Saturday
MORNING SESSION
1.30 p.m.—Workshops and His Symphony.
1.45 p.m.—Mural programme from the studio.
2.00 p.m.—Week’s News from the “Trek.”
2.05 p.m.—Clock and Chimes.

MIYODA SYMPHONY
4.45 p.m.—We’ll all be merry. (Choral)
5.05 p.m.—Mural programme from the studio.
5.10 p.m.—Clock and Chimes.

2UW, SYDNEY
Saturday
CLOSE DOWN

WORLD’S BEST RECHARGEABLE BATTERY: PHILOX.
WIRELESS WEEKLY

JAN, MELBOURNE

Saturday

MORNING NEWS SESSION
11 a.m. to 12 noon.

MINUTE CONCERT SESSION
12 noon to 12:15 noon.

Lavish Ballroom Session
12:15 noon to 12:30 noon.

Lavish Ballroom Session
12:30 noon to 12:45 noon.

FRIDAY SESSION

ORIGONAL CONCERT

There are no rivals in the Philco.

WLAZLBSS

NEW YEAR'S EVE

29th December 1927

There are no rivals in the Philco.
# Points About the Clyde

- **Clyde** is easily carried.
- Highly polished one-piece chrome container.
- Extra thick, non-breaking plates.
- Wood separators, tough, acid-resistant, pure.
- Guaranteed positively leak-proof and practically indestructible.
- There's a Clyde for every purpose.

### Note These Prices:

#### Heavy Duty Two Volt Cells

<table>
<thead>
<tr>
<th>Type</th>
<th>Voltage</th>
<th>Actual Capacity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS</td>
<td>2</td>
<td>25 ampere</td>
<td>1.10</td>
</tr>
<tr>
<td>BT</td>
<td>2</td>
<td>40 ampere</td>
<td>1.60</td>
</tr>
<tr>
<td>BS</td>
<td>2</td>
<td>50 ampere</td>
<td>2.00</td>
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#### S.R. Type Radio Batteries

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<th>Type</th>
<th>Voltage</th>
<th>Actual Capacity</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>6CRR</td>
<td>4</td>
<td>60 ampere</td>
<td>3.10</td>
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</table>

#### C.R. Type Radio Batteries

<table>
<thead>
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<th>Type</th>
<th>Voltage</th>
<th>Capacity</th>
<th>Price</th>
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<td>10 amperes</td>
<td>4.00</td>
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<td>20 amperes</td>
<td>4.10</td>
</tr>
<tr>
<td>6CR8</td>
<td>6</td>
<td>75 amperes</td>
<td>5.10</td>
</tr>
<tr>
<td>6CRCR</td>
<td>6</td>
<td>80 amperes</td>
<td>5.10</td>
</tr>
<tr>
<td>4CR7</td>
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<td>60 amperes</td>
<td>6.10</td>
</tr>
<tr>
<td>4CR9</td>
<td>4</td>
<td>75 amperes</td>
<td>6.15</td>
</tr>
</tbody>
</table>

**AT ALL DEALERS.**

Made by the Clyde Engineering Company Limited
2UW, SYDNEY
Sunday
CLOSE DOWN.
3LO, MELBOURNE
Sunday
MORNING SESSION.
Begins 10 a.m. 40 Foot Marconi, Few Castle, M.R.
10 a.m. - E. W. Strang, e.m.g.
2 p.m. - 3rd Class, M.R.
3 p.m. - 2nd Class, M.R.
7 p.m. - 1st Class, M.R.
Close down 11 p.m.
AFTERNOON SESSION.
Begins 1.30 p.m. 40 Foot Marconi, Few Castle, M.R.
1.30 p.m. - E. W. Strang, e.m.g.
2.30 p.m. - 3rd Class, M.R.
3.30 p.m. - 2nd Class, M.R.
6.30 p.m. - 1st Class, M.R.
Close down 8 p.m.
EVENING SESSION.
Begins 7.30 p.m. 40 Foot Marconi, Few Castle, M.R.
7.30 p.m. - E. W. Strang, e.m.g.
8.30 p.m. - 3rd Class, M.R.
9.30 p.m. - 2nd Class, M.R.
10.30 p.m. - 1st Class, M.R.
Close down 11 p.m.
CHILDREN'S SESSION.
Begins 3 p.m. "Brother Hills" will have a chat about the "New Year Reconciliation".
3 p.m. - 40 Foot Marconi, Few Castle, M.R.
As above.
4 p.m. - 3rd Class, M.R.
As above.
5 p.m. - 2nd Class, M.R.
As above.
6 p.m. - 1st Class, M.R.
As above.
CHILDREN'S SESSION.
3 p.m. - 40 Foot Marconi, Few Castle, M.R.
As above.
4 p.m. - 3rd Class, M.R.
As above.
5 p.m. - 2nd Class, M.R.
As above.
6 p.m. - 1st Class, M.R.
As above.
Ask for the New 83X Philco Battery.
PERFECT TUNING CONTROL

With Emmco Drum Control Chasses

Simplified tuning—one-touch tuning—perfect tuning control. Your receiver controlled by a touch of a finger on the central drum. Condensers perfectly matched, drawings calibrated, logging windows on either side. Added ripple of appearance, hair-line separation of stations. The whole tuning in one complete rigid unit.

Two Dial Control.

THE EMSCO DRUM CONTROL has been designed and perfected by the Radio Engineers of the Electricity Meter Manufacturing Co. Ltd., after an extended extensive research to overcome the defects common to imported articles of the same nature. The drum controls the Emmco Condenser Chasses, passing through a single opening in the front panel, and each drum contains an indicating strip for identification purposes. The tuning is a simple film with a logarithmic adjustment for simplicity and accuracy. The individual condensers are matched, thus providing for properly-balanced tuning control and the most satisfactory distribution of stations.

The handsomely finished bakelite face plate ready to be fitted on the face of any type of screen is provided. The condensers are mounted on a strong rigid chassis, the cap bearings ensuring perfect and permanent alignment. Convenient lugs are provided for the easy mounting of units or the addition of connections. The complete unit is furnished with a hole for making openings for the drum. The Emmco two dial control tuning unit is adapted for use in any circuit, including the sideboard. Beautifully finished and guaranteed not to get out of order. The most perfect tuned control unit yet produced.

For Chassis complete, Mounted with Three Condensers and Bakelite Case for Double Control, complete $10.00

A back panel view showing complete Chassis.

AT ALL DEALERS

Made by—

ELECTRICITY METER MFG. CO. LTD.
Page Thirty-Eight

4QG, BRISBANE.

Sunday.

MORNING SESSION.

The customary Morning Service will be read from St. Stephen's Roman Catholic Church.
11 a.m.—St. Stephen's Cathedral.
11:30 a.m.—Fire Service.
12 noon.—Vesper Service.
12:30 noon.—Supper Hour.
1 p.m.—High Mass.
2 p.m.—Divine Service.

AFTERNOON SESSION.

The Opening of the New Diocesan Annual General Meeting will be at 2 p.m. in the School Hall.
2:30 p.m.—Opening Address.
3:30 p.m.—Breakfast Hour.
4:30 p.m.—Church Service.
5:30 p.m.—General Assembly.

6WF, PERTH.

Monday, Jan. 2

2FC, SYDNEY.

WIRELESS WEEKLY

Friday, December 30, 1927.

AFTERNOON SESSION.

11:30 a.m.—St. Patrick's, Melbourne.
1 p.m.—Church Service.
1:30 p.m.—Vice-President, St. Patrick's, Melbourne.

EVENING SESSIONS.

10:15 p.m.—10:30 p.m.—Children's Service.
10:30 p.m.—Children's Service.
11 p.m.—Children's Service.

6WF, PERTH.

Saturday.

10:30 p.m.—Programme.
11 p.m.—Children's Service.
11:15 p.m.—Programme.

12 noon.—Children's Service.
1 p.m.—Children's Service.
2 p.m.—Children's Service.

7ZL, HOBART.

Sunday.

NEW YEAR'S DAY.

11 a.m.—Church Service from Memorial Church.
2 p.m.—Church Service from St. Peter's, South Hobart.

STAYING AWAY.

11 a.m.—Church Service from Memorial Church.
2 p.m.—Church Service from St. Peter's, South Hobart.

NIGHT SESSION.

11 p.m.—Church Service from Children's Presbyterian Church.
11 p.m.—Church Service from St. Peter's, South Hobart.

KARL E. VON SHERWIN.

The Wireless Weekly is conducted by Karl E. Von Sheridan, K.O.R.S. (pseudonym).
The Genie in the Sun-Ray carton

It was a rare and envied thing in the days of old to be able to conjure up a genie capable of tying the world at your feet. To possess a magic lamp or a magic ring was the ambition of emperors.

Today we are all born new geniuses. In every ORMOND Sun-Ray Projector is a genie who at the slightest glancing upon a magic button at the neck of the lamp, will call upon the genie "Mr. Sun-Ray" who is stationed there. There's no "genius" with an ORMOND Projector. To transform decoding in old and fire will you almost get your wishes. You're here-to-a reality of an era.

These are ORMOND Condensers to suit the needs of everyone at prices within reach of all.

ASK YOUR DEALER.

THE ORMOND ENGINEERING CO. LTD.

WHOLESALE DISTRIBUTORS FOR VICTORIA:
A. G. Thorpe and Co., Pte. Ltd., 156-158
Post Office Place, Melbourne.
Harrington Ltd., 195 Collins Street, Melbourne.
FACTORY REPRESENTATIVE:
John Arnold, 107 P.N., Ferguson Street, Melbourne.

The ORMOND CONDENSER
The wireless weekly: the hundred per cent Australian radio journal

2BL, SYDNEY

Monday

MORNING SESSION
11:00 a.m.—Go P.O. Clerk and others.
11:05 a.m.—Michael programme from the Station.
11:10 a.m.—Eve. Canteen and special entertainment for Children in Hospital.

AFTERNOON SESSION
2 p.m.—Eve. Clerk and others.
3:15 p.m.—Promenade from the "Go P.O." to the Chicago Club.
3:20 p.m.—Eve. Canteen and others.

Evening Sessions
8 p.m.—Eve. Canteen and others.
10 p.m.—Michael programme from the Station.
10:30 p.m.—Eve. Canteen and others.

WIRELESS WEEKLY

Friday, December 20, 1930

EVENING SESSION
A DRAW PICTURES NIGHT
11:00 p.m.—Monopoly, by the Married Officers’ Club.
11:10 p.m.—Monopoly, by the Married Officers’ Club.
11:15 p.m.—Monopoly, by the Married Officers’ Club.
11:20 p.m.—Monopoly, by the Married Officers’ Club.

2GB, SYDNEY

Monday

MORNING SESSION
9:15 a.m.—Eve. Clerk and others.
9:30 a.m.—Go P.O. Clerk and others.
10:00 a.m.—Eve. Canteen and others.

2 GB SYDNEY

WIRELESS WEEKLY

Friday, December 20, 1930

EVENING SESSION

11:00 p.m.—Canteen.
11:10 p.m.—Monopoly, by the Married Officers’ Club.
11:15 p.m.—Monopoly, by the Married Officers’ Club.
11:20 p.m.—Monopoly, by the Married Officers’ Club.

2 UW, SYDNEY

Monday

CLOSE DOWN.

3LO, MELBOURNE

Monday

MORNING SESSION
7:15 a.m.—Rally morning session.
7:30 a.m.—Rally morning session.
8:00 a.m.—Rally morning session.
8:15 a.m.—Rally morning session.

EVENING SESSION
11:00 p.m.—Monopoly, by the Married Officers’ Club.
11:10 p.m.—Monopoly, by the Married Officers’ Club.
11:15 p.m.—Monopoly, by the Married Officers’ Club.
11:20 p.m.—Monopoly, by the Married Officers’ Club.

Why Blame Static? Buy a Philco!
The Mullard Master-Valve with the Wonderful P.M. Filament with English or U.X. Base Remains the Same Price - - - 13/6

BUT

WHILE THE STOCKS LAST

the following previous types will be sold at reduced prices

HF and LF Bright Filament ... ... ... 2/- each
D SERIES ... ... ... ... 6/- each
DFA SERIES ... ... ... ... 7/6 each

with English or U.V. Base

CHARACTERISTICS AS PER THIS TABLE.

<table>
<thead>
<tr>
<th>Type</th>
<th>2/-</th>
<th>6/-</th>
<th>6/-</th>
<th>6/-</th>
<th>6/-</th>
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<tbody>
<tr>
<td>HF</td>
<td>D3</td>
<td>D3</td>
<td>D3A</td>
<td>D3A</td>
<td>D3A</td>
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<tr>
<td>LF</td>
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<td>D3</td>
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<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
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<tr>
<td>Impedance, ohms</td>
<td>16000</td>
<td>16000</td>
<td>16000</td>
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<tr>
<td>Coupling</td>
<td>Detector</td>
<td>Audio</td>
<td>Amplifier</td>
<td>Audio</td>
<td>Amplifier</td>
</tr>
</tbody>
</table>

Every Valve is guaranteed to function perfectly.

OBTAINABLE FROM EVERY RADIO DEALER IN AUSTRALIA

WIRELESS WEEKLY

Friday, December 30, 1927.

3AR, MELBOURNE

MORNING NEWS SESSION

2 p.m. to 4 p.m.

SPORTS SESSION

2 p.m. to 7 p.m.

WASHINGTON SESSION

2 p.m. to 7 p.m.

EVENING SESSION

2 p.m. to 9 p.m.

3AR, MELBOURNE

MORNING NEWS SESSION

2 p.m. to 4 p.m.

SPORTS SESSION

2 p.m. to 7 p.m.

WASHINGTON SESSION

2 p.m. to 7 p.m.

EVENING SESSION

2 p.m. to 9 p.m.
A "Radiokes" Short Wave Kit
will give pleasure the year round

Hear London, America and the Continent on a Short Wave Receiver
built from a Radiokes Short Wave Kit

Here is the latest member of the famous Radiokes family. This well designed and attractive looking kit is the most efficient short wave kit available anywhere. As is usual with Radiokes quality goods this kit is built up to a standard and not down to a price. Be in early and miss nothing.

Radiokes Short Wave Kits £2/15/-

Other members of the Radiokes family are detailed here.

Radiokes Splitbyne Kits ........... £5/15/-
Radiokes Neutrodyne Kits .......... £1/12/6
Radiokes Sterbenzyn Kits .......... £6/15/-
Radiokes Browning Drake Kits .... £2/2/-
Radiokes Bager Kits .............. £1/5/-
Radiokes Circloid Kits ........... £2/8/-
Radiokes Reinhart Tuners .......... 10/6
Radiokes Shielded Reinhart Coils .... £1 3/-
Radiokes Three Circuit Tuners ... 14/6
Radiokes 180deg. Coplers ........ 14/8
Radiokes R.F. Chokes ............ 8/6
Radiokes Mayolian S. Supply ..... £10/10/-

At all good dealers or direct.

METROPOLITAN ELECTRIC CO. LTD., 27-29 King Street, Sydney
Manufacturers of the Famous
RADIKES QUALITY PRODUCTS

Write for our descriptive leaflet describing the construction and operation of the PERFECT SHORT WAVE RECEIVER. This Receiver uses Radiokes Short Wave Kit, and covers a range of 13 to 600 metres diagram
**WIRELESS WEEKLY**

FRIDAY, DECEMBER 28, 1934

5CL, ADELAIDE

**MONDAY SESSION**

11 a.m. - **G. T. Oakley**

12 noon - **H. E. Millward**

1 p.m. - **J. D. Bloy**

2 p.m. - **R. H. Bentley**

3 p.m. - **J. G. H. Street**

3.15 p.m. - **M. A. K.罴**

3.30 p.m. - **R. H. Bentley**

3.45 p.m. - **H. E. Millward**

4 p.m. - **G. T. Oakley**

5 p.m. - **H. W. Meldrum**

6 p.m. - **J. G. H. Street**

6.15 p.m. - **M. A. K.罴**

6.30 p.m. - **R. H. Bentley**

6.45 p.m. - **H. E. Millward**

**WEDNESDAY SESSION**

6 p.m. - **J. G. H. Street**

6.15 p.m. - **M. A. K.罴**

6.30 p.m. - **R. H. Bentley**

6.45 p.m. - **H. E. Millward**

7 p.m. - **G. T. Oakley**

**THURSDAY SESSION**

9 p.m. - **H. W. Meldrum**

10 p.m. - **J. D. Bloy**

11 p.m. - **R. H. Bentley**

**FRIDAY SESSION**

10 p.m. - **G. T. Oakley**

11 p.m. - **H. E. Millward**

12 midnight - **J. D. Bloy**

1 a.m. - **R. H. Bentley**

1.15 a.m. - **M. A. K.罴**

1.30 a.m. - **H. W. Meldrum**

HARLEY used Harpess in New Guinea.
Tuesday, Jan. 3

2FC, SYDNEY

**EARLY MORNING REQUESTS.**
1 a.m. to 4 a.m.

**MORNING REQUESTS.**
10 a.m. - "Kylie" will announce the London news, 5 a.m. to 5.20 a.m.
10.20 a.m. - "Sydney Morning Herald" news.
10.40 a.m. - "The Sydney Morning Herald" news.
11 a.m. - "The Sydney Morning Herald" news.
11.20 a.m. - "The Sydney Morning Herald" news.
11.40 a.m. - "The Sydney Morning Herald" news.

**MID-MORNING REQUESTS.**
12.40 p.m. - "The Sydney Morning Herald" news.
12.45 p.m. - "The Sydney Morning Herald" news.
12.50 p.m. - "The Sydney Morning Herald" news.
12.55 p.m. - "The Sydney Morning Herald" news.
1 p.m. - "The Sydney Morning Herald" news.
1.10 p.m. - "The Sydney Morning Herald" news.
1.25 p.m. - "The Sydney Morning Herald" news.
1.40 p.m. - "The Sydney Morning Herald" news.
1.50 p.m. - "The Sydney Morning Herald" news.
2 p.m. - "The Sydney Morning Herald" news.
2.10 p.m. - "The Sydney Morning Herald" news.
2.20 p.m. - "The Sydney Morning Herald" news.
2.30 p.m. - "The Sydney Morning Herald" news.
2.40 p.m. - "The Sydney Morning Herald" news.
2.50 p.m. - "The Sydney Morning Herald" news.
3 p.m. - "The Sydney Morning Herald" news.
3.10 p.m. - "The Sydney Morning Herald" news.
3.20 p.m. - "The Sydney Morning Herald" news.
3.30 p.m. - "The Sydney Morning Herald" news.
3.40 p.m. - "The Sydney Morning Herald" news.
3.50 p.m. - "The Sydney Morning Herald" news.
4 p.m. - "The Sydney Morning Herald" news.
4.10 p.m. - "The Sydney Morning Herald" news.
4.20 p.m. - "The Sydney Morning Herald" news.
4.30 p.m. - "The Sydney Morning Herald" news.
4.40 p.m. - "The Sydney Morning Herald" news.
4.50 p.m. - "The Sydney Morning Herald" news.
5 p.m. - "The Sydney Morning Herald" news.
5.10 p.m. - "The Sydney Morning Herald" news.
5.20 p.m. - "The Sydney Morning Herald" news.
5.30 p.m. - "The Sydney Morning Herald" news.
5.40 p.m. - "The Sydney Morning Herald" news.
5.50 p.m. - "The Sydney Morning Herald" news.
6 p.m. - "The Sydney Morning Herald" news.
6.10 p.m. - "The Sydney Morning Herald" news.
6.20 p.m. - "The Sydney Morning Herald" news.
6.30 p.m. - "The Sydney Morning Herald" news.
6.40 p.m. - "The Sydney Morning Herald" news.
6.50 p.m. - "The Sydney Morning Herald" news.
7 p.m. - "The Sydney Morning Herald" news.
7.10 p.m. - "The Sydney Morning Herald" news.
7.20 p.m. - "The Sydney Morning Herald" news.
7.30 p.m. - "The Sydney Morning Herald" news.
7.40 p.m. - "The Sydney Morning Herald" news.
7.50 p.m. - "The Sydney Morning Herald" news.
8 p.m. - "The Sydney Morning Herald" news.
8.10 p.m. - "The Sydney Morning Herald" news.
8.20 p.m. - "The Sydney Morning Herald" news.
8.30 p.m. - "The Sydney Morning Herald" news.
8.40 p.m. - "The Sydney Morning Herald" news.
8.50 p.m. - "The Sydney Morning Herald" news.
9 p.m. - "The Sydney Morning Herald" news.
9.10 p.m. - "The Sydney Morning Herald" news.
9.20 p.m. - "The Sydney Morning Herald" news.
9.30 p.m. - "The Sydney Morning Herald" news.
9.40 p.m. - "The Sydney Morning Herald" news.
9.50 p.m. - "The Sydney Morning Herald" news.
10 p.m. - "The Sydney Morning Herald" news.
10.10 p.m. - "The Sydney Morning Herald" news.
10.20 p.m. - "The Sydney Morning Herald" news.
10.30 p.m. - "The Sydney Morning Herald" news.
10.40 p.m. - "The Sydney Morning Herald" news.
10.50 p.m. - "The Sydney Morning Herald" news.
11 p.m. - "The Sydney Morning Herald" news.
11.10 p.m. - "The Sydney Morning Herald" news.
11.20 p.m. - "The Sydney Morning Herald" news.
11.30 p.m. - "The Sydney Morning Herald" news.
11.40 p.m. - "The Sydney Morning Herald" news.
11.50 p.m. - "The Sydney Morning Herald" news.
12 a.m. - "The Sydney Morning Herald" news.

**WIRELESS WEEKLY**

**2-Valve Receiver**

**Standard**

**£14**

Complete with all accessories

**Farmer's standard two-valve receiver**, combining efficiency with reliability, entirely eliminates inside interference. Included in standard equipment are two "Radiogram" valves of a type particularly adaptable to this set. Erected in the city and suburbs free. Maintenance cost is negligible, price with one pair of headphones... £14... £22

**Philips' "B" Battery Eliminators**

Philips' "B" Battery Eliminator, does away with "B" batteries. To those desiring an insurable "B" battery, this instrument is invaluable. It has a maximum output of 35 milliamperes with absolutely no hum. Price, £15 15/-

**The "Garden" Shielded Cell Kit**

The "Garden" Shielded Cell Kit comprises three sets of cells, each supplied with a shield of specially treated aluminium. This shield reduces internal microphonics and hum pickup. Cells may be purchased separately. Price, £3 15/- On the complete kit of three, Price... £12 15/-

**Wireless Department, Ground Floor, New Building.**

**FARMER'S**

Pitt, Market and George Streets.
WIRELESS WEEKLY

Friday, December 30, 1927

2GB, SYDNEY

Tuesday.
4:30 a.m. MORNING SESSION.
10 a.m. MUSIC.
11 a.m. Weather Report and Farm Reports.
11 a.m. Special Programme from the BBC.
6:30 p.m. Special Programme from the BBC.

2BL, SYDNEY

Tuesday.

EARLY MORNING SESSIONS to 5 a.m.
6:30 a.m. MORNING SESSION.
9:30 a.m. Weather Report and Farm Reports.
6:30 p.m. Special Programme from the BBC.

3LO, MELBOURNE

Tuesday.

WEDNESDAY SESSION.

6:30 p.m. "The Wireless World" by O. P. S. 

BURGESS WEST OVER THE POLE WITH BYRD

The wireless weekly: the hundred per cent Australian radio journal
The wireless weekly: the hundred per cent Australian radio journal

FRIDAY, DECEMBER 20, 1927.

WIRELESS WEEKLY

Page Forty-Seven

For City Homes or Country Homesteads

The IGRANIC SUPER-HETERODYNE SET

Is the choice of experts and discriminating Amateurs alike.

From all quarters of the country comes enthusiastic testimony on behalf of IGRANIC. The quoting of a few extracts from these testimonial letters will prove interesting to those who are considering "which set shall I buy?"

From Griffith, N.S.W.: "I have had wonderful results with the above receiver, and in my experience it is the best I have ever handled."

From Bowral, N.S.W.: "With reference to the IGRANIC Super-Heterodyne Set recently purchased from you, I consider this is a very excellent job."

From Sydney, N.S.W.: "I have recently completed one of your IGRANIC Super-Heterodyne Kits and wish to inform you that I am exceedingly pleased with it in every way. The originals of these testimonials may be seen upon application.

With the Best of the Year,
The IGRANIC Company of Messrs. C. J. EVANS and Co.,

NOYES BROS.
(SYDNEY LTD.)

Head Office: 124 Reid Street, Sydney, Australia.

The IGRANIC Company of Messrs. C. J. EVANS and Co.,

35 SQUARE MILE PLAY. BILLS AND SALT.

Formerly LIVINGSTON, MILLS AND CRAIG.

Fairy ST. R. SCOTT.
WIRELESS WEEKLY

Thursday, December 30, 1927.

3AR, MELBOURNE

BROADCASTING NEWS-EANGES

MID-WEEK CONCERT BROADCAST. 14.30 p.m., M. G. Glazier, "Sonic King" (Imperial). Special feature of the Princess of the Peninsula and Singing Star in Sydney. This broadcast will be a musical affair of the highest order.

MATTRESS SESSION.

ORCHESERAL SESSION.


MATTRESS SESSION.

ORCHESTRAL SESSION.


MATTRESS SESSION.

ORCHESTRAL SESSION.


MATTRESS SESSION.

ORCHESTRAL SESSION.


MATTRESS SESSION.

ORCHESTRAL SESSION.


MATTRESS SESSION.

ORCHESTRAL SESSION.

6WF, PERTH.

Tu.

0.00 a.m. — News Bulletin.
0.05 a.m. — Australian News.
0.07 a.m. — Australian News.
0.10 a.m. — News Bulletin.
0.15 a.m. — News Bulletin.
0.17 a.m. — News Bulletin.
0.21 a.m. — Australian News.
0.25 a.m. — Australian News.
0.30 a.m. — News Bulletin.
0.35 a.m. — News Bulletin.
0.40 a.m. — News Bulletin.
0.45 a.m. — News Bulletin.
0.50 a.m. — News Bulletin.
0.55 a.m. — News Bulletin.
1.00 a.m. — News Bulletin.
1.05 a.m. — News Bulletin.
1.10 a.m. — News Bulletin.
1.15 a.m. — News Bulletin.
1.21 a.m. — Australian News.
1.25 a.m. — Australian News.
1.30 a.m. — News Bulletin.
1.35 a.m. — News Bulletin.
1.40 a.m. — News Bulletin.
1.45 a.m. — News Bulletin.
2.00 a.m. — News Bulletin.
2.05 a.m. — News Bulletin.
2.10 a.m. — News Bulletin.
2.15 a.m. — News Bulletin.
2.30 a.m. — News Bulletin.
2.35 a.m. — News Bulletin.
2.40 a.m. — News Bulletin.
2.45 a.m. — News Bulletin.
3.00 a.m. — News Bulletin.
3.05 a.m. — News Bulletin.
3.10 a.m. — News Bulletin.
3.15 a.m. — News Bulletin.
3.30 a.m. — News Bulletin.
3.35 a.m. — News Bulletin.
3.40 a.m. — News Bulletin.
3.45 a.m. — News Bulletin.
4.00 a.m. — News Bulletin.
4.05 a.m. — News Bulletin.
4.10 a.m. — News Bulletin.
4.15 a.m. — News Bulletin.
5.00 a.m. — News Bulletin.
5.05 a.m. — News Bulletin.
5.10 a.m. — News Bulletin.
5.15 a.m. — News Bulletin.

6WF, HOBART.

Tu.

5.00 a.m. — News Bulletin.
5.05 a.m. — News Bulletin.
5.10 a.m. — News Bulletin.
5.15 a.m. — News Bulletin.
5.30 a.m. — News Bulletin.
5.35 a.m. — News Bulletin.
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5.45 a.m. — News Bulletin.
6.00 a.m. — News Bulletin.
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6.40 a.m. — News Bulletin.
6.45 a.m. — News Bulletin.
7.00 a.m. — News Bulletin.
7.05 a.m. — News Bulletin.
7.10 a.m. — News Bulletin.
7.15 a.m. — News Bulletin.
7.30 a.m. — News Bulletin.
7.35 a.m. — News Bulletin.
7.40 a.m. — News Bulletin.
7.45 a.m. — News Bulletin.
8.00 a.m. — News Bulletin.
8.05 a.m. — News Bulletin.
8.10 a.m. — News Bulletin.
8.15 a.m. — News Bulletin.
8.30 a.m. — News Bulletin.
8.35 a.m. — News Bulletin.
8.40 a.m. — News Bulletin.
8.45 a.m. — News Bulletin.
9.00 a.m. — News Bulletin.
9.05 a.m. — News Bulletin.
9.10 a.m. — News Bulletin.
9.15 a.m. — News Bulletin.
9.30 a.m. — News Bulletin.
9.35 a.m. — News Bulletin.
9.40 a.m. — News Bulletin.
9.45 a.m. — News Bulletin.
10.00 a.m. — News Bulletin.
10.05 a.m. — News Bulletin.
10.10 a.m. — News Bulletin.
10.15 a.m. — News Bulletin.
10.30 a.m. — News Bulletin.
10.35 a.m. — News Bulletin.
10.40 a.m. — News Bulletin.
10.45 a.m. — News Bulletin.
11.00 a.m. — News Bulletin.
11.05 a.m. — News Bulletin.
11.10 a.m. — News Bulletin.
11.15 a.m. — News Bulletin.
11.30 a.m. — News Bulletin.
11.35 a.m. — News Bulletin.
11.40 a.m. — News Bulletin.
11.45 a.m. — News Bulletin.
12.00 noon — News Bulletin.
Charge Your Own Batteries!!
And have them ready for every programme.

Tungar A & B
2 amp. Charger
£8-10-0

Terms: 32/- Deposit; 5/- Per Week.

Keogh Radio Supplies
Manufacturers of the famous KEOGH RADIO SET

Balkite Trickle
Charger
£3-10-0

Terms: 1½/- Deposit; 2/- Per Week.

PHILLIPS "A" CHARGER,
Terms: 19/- Deposit; 5/- Per Week. Cash £5.5/-

BALKITE "A" CHARGER,
Terms: 19/- Deposit; 5/- Per Week. Cash £5.5/-

Our Time Payment System applies to...

Are you having trouble with your receiver set? Our Engineer, Chas. W. Keogh (Technical Editor "Daily Telegraph"), will be pleased to advise you on all problems and improvements likely to give better reception. We specialise in repairing and altering sets with guaranteed results.

KEOGH RADIO SUPPLIES
40a PARK STREET
(Between Castlereagh and Pitt Streets)
Open till 9 p.m., Fridays
WIRELESS WEEKLY

Friday, December 29, 1937

APPEARANCE SESSION

9 a.m. - J. I. delicious cake. 
9 a.m. - J. L. delicious cake. 
9 a.m. - J. M. delicious cake. 
9 a.m. - J. N. delicious cake. 
9 a.m. - J. O. delicious cake. 
9 a.m. - J. P. delicious cake. 
9 a.m. - J. Q. delicious cake. 
9 a.m. - J. R. delicious cake. 
9 a.m. - J. S. delicious cake. 
9 a.m. - J. T. delicious cake. 
9 a.m. - J. U. delicious cake. 
9 a.m. - J. V. delicious cake. 
9 a.m. - J. W. delicious cake. 
9 a.m. - J. X. delicious cake. 
9 a.m. - J. Y. delicious cake. 
9 a.m. - J. Z. delicious cake.

3LO, MELBOURNE

WEDNESDAY

5.00 a.m. - J. A. delicious cake. 
5.20 a.m. - J. B. delicious cake. 
5.40 a.m. - J. C. delicious cake. 
6.00 a.m. - J. D. delicious cake. 
6.20 a.m. - J. E. delicious cake. 
6.40 a.m. - J. F. delicious cake. 
7.00 a.m. - J. G. delicious cake. 
7.20 a.m. - J. H. delicious cake. 
7.40 a.m. - J. I. delicious cake. 
8.00 a.m. - J. J. delicious cake. 
8.20 a.m. - J. K. delicious cake. 
8.40 a.m. - J. L. delicious cake. 
9.00 a.m. - J. M. delicious cake. 
9.20 a.m. - J. N. delicious cake. 
9.40 a.m. - J. O. delicious cake. 
10.00 a.m. - J. P. delicious cake. 
10.20 a.m. - J. Q. delicious cake. 
10.40 a.m. - J. R. delicious cake. 
11.00 a.m. - J. S. delicious cake. 
11.20 a.m. - J. T. delicious cake. 
11.40 a.m. - J. U. delicious cake. 
12.00 a.m. - J. V. delicious cake. 
12.20 a.m. - J. W. delicious cake. 
12.40 a.m. - J. X. delicious cake. 
1.00 a.m. - J. Y. delicious cake. 
1.20 a.m. - J. Z. delicious cake.

2 UW, SYDNEY

WEDNESDAY

5.00 a.m. - J. A. delicious cake. 
5.20 a.m. - J. B. delicious cake. 
5.40 a.m. - J. C. delicious cake. 
6.00 a.m. - J. D. delicious cake. 
6.20 a.m. - J. E. delicious cake. 
6.40 a.m. - J. F. delicious cake. 
7.00 a.m. - J. G. delicious cake. 
7.20 a.m. - J. H. delicious cake. 
7.40 a.m. - J. I. delicious cake. 
8.00 a.m. - J. J. delicious cake. 
8.20 a.m. - J. K. delicious cake. 
8.40 a.m. - J. L. delicious cake. 
9.00 a.m. - J. M. delicious cake. 
9.20 a.m. - J. N. delicious cake. 
9.40 a.m. - J. O. delicious cake. 
10.00 a.m. - J. P. delicious cake. 
10.20 a.m. - J. Q. delicious cake. 
10.40 a.m. - J. R. delicious cake. 
11.00 a.m. - J. S. delicious cake. 
11.20 a.m. - J. T. delicious cake. 
11.40 a.m. - J. U. delicious cake. 
12.00 a.m. - J. V. delicious cake. 
12.20 a.m. - J. W. delicious cake. 
12.40 a.m. - J. X. delicious cake. 
1.00 a.m. - J. Y. delicious cake. 
1.20 a.m. - J. Z. delicious cake.

WIRELESS WEEltLT
The “D.J. Portable-4” is just the Set for the holidays. It is in a neat 10 x 10 x 9 inch case that packs easily in car or boat and only weighs 3 lb, complete.

The “D.J. Portable-4” is fully guaranteed by David Jones”. It has excellent tone and strength up to 100 miles. Speaker and aerial are built-in, and the Set is supplied ready to tune-in. You may take delivery on payment of £3 10/- deposit and 9½ weekly for 52 weeks, or cash price...£24/10/-

The “Trav-Ler-5” is another good portable, too. It comes in a 13-inch black leatherette case. You can take delivery on payment of £3 and 11½ weekly for one year. Cash Price...£30

David Jones' Castle∴ough, Market & Elizabeth Streets
WIRELESS WEEKLY

Friday, December 20, 1929.

5CL, ADELAIDE.

WORTHY SESSION.
10 a.m.-Radio address. 11 a.m.-Unusual weather conditions forecast.
11 a.m.-The Daily Mirror and The Daily Standard.
11 a.m.-Lunch hour (Admiral P.)
11 a.m.-Close down.

MIDNIGHT SESSION.
2 p.m.-The Children's Hour.
5 p.m.-Radio address. 6 p.m.-Messages to friends abroad.
6 p.m.-Close down.

FAMILY EVENING SESSION.
11 a.m.-Radio address. 12 a.m.-Radio address.
12 a.m.-Close down.

6WF, PERTH.

WORTHY SESSION.
10 a.m.-Radio address. 11 a.m.-Radio address.
11 a.m.-Close down.

5CL, ADELAIDE.

WORTHY SESSION.
10 a.m.-Radio address. 11 a.m.-Unusual weather conditions forecast.
11 a.m.-The Daily Mirror and The Daily Standard.
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FAMILY EVENING SESSION.
11 a.m.-Radio address. 12 a.m.-Radio address.
12 a.m.-Close down.

There is no "just-as-good" as Burgess.
Exide Wireless Batteries

Standard equipped in all the Marconis systems throughout the world.

Made by the oldest and largest battery makers in the world.


Exide "A" Batteries in 2 Volt Units.

Suitable for Dull Emiter Tubes.

Price each Cell fully charged.

Capacity in Hours

Type

Exide "A" Batteries 2 Volt Units.

Price for first fully charged.

Capacity

Type

Exide "B" Batteries.

W.P. 30 volts, 5,000 milliamp. Hours 1 3 0

W.D. 24 volts, 1,000 milliamp. Hours 2 4 0

All Batteries when discharged can be recharged.

If these cells are not fully discharged and left till they will stand six months without sulphating.

N.S.W. Distributors and Exide Service Stations:

GIBSON BATTLE & CO., LTD.

Toll: HUNT STREET, SYDNEY.

M. 2771 (9 lines) (Off Woollaston Avenue) M. 2711 (1 line).
2BL, SYDNEY.

Thursday

EARLY MORNING SESSION
8.30 a.m. — G.P.O. Clock and chimes.
Musical programme from Studio.

FACULTY SESSION
10.10 a.m. — G.P.O. Clock and chimes.
Special Songs, Tunes and musical selections.
11.00 a.m. — G.P.O. Clock and chimes.
Music for Children.

AFTERNOON SESSION
4.00 p.m. — G.P.O. Clock and chimes.
Programme of music from Studio.

EARLY EVENING SESSION
6.30 p.m. — G.P.O. Clock and chimes.
Children’s Selection.

SPECIAL COUNTRY SESSION
8.00 p.m. — G.P.O. Clock and chimes.
Australian and International Country Selection.

MIDNIGHT SESSION
11.00 p.m. — G.P.O. Clock and chimes.
Australian Country Selection.

3LO, MELBOURNE.

Thursday

EARLY MORNING SESSION
8.30 a.m. — G.P.O. Clock and chimes.
Musical programme.

LATE MORNING SESSION
11.00 a.m. — G.P.O. Clock and chimes.
Australian and International Country Selection.

Afternoon Session
2.00 p.m. — G.P.O. Clock and chimes.
Australian and International Country Selection.

Evening Session
4.30 p.m. — G.P.O. Clock and chimes.
Australian and International Country Selection.

MIDNIGHT SESSION
11.00 p.m. — G.P.O. Clock and chimes.
Australian Country Selection.

Let Your Battery Save Your Purse; Pilex.
TWO NEW "B" BATTERIES

Offering the most Economical Radio Battery Service in Australia.

Below are featured the main points of the two new Ever-Ready 45 Volt High Tension Radio "B" Batteries, which were built to satisfy an almost universal demand for a still more powerful, more efficient and more economical Radio Battery.

The new EVERREADY HIGH DUTY "B" Battery is made up of 18 heavy cells in series-parallel combinations with positive screws metal type at 10, 16, 24 and 45 volts. Every Ever Ready Construction, Hardened Elements, perfectly balanced and the whole efficiently insulated between 45 and 90 volts, with capacity far in excess of any other make of Battery of equal size and capacity.

H.D. (Heavy Duty) 45 Volt = 22.8

The new EVERREADY TRADING SERVICE "B" Battery is another in series to the above listed Heavy Duty Battery, but the cells are of its own line and have increased to four thousandths. The New TRADING "B" Battery is long service and more powerful under conditions. They have been specially designed to withstand the heavy current demands imposed by the use of Multi-Tone Sets, of the Newcombe and Stuart apparatus, etc.

Heavy Duty 45 Volt = 20.8

For further reading containing a lot of interesting information and many names on both the "B" Battery are, see an agent. Ask your dealer, or write us.

Look for the name "Ever-Ready"

Or this TRADE MARK

The Ever-Ready Co. (Gt. Britain) Ltd.
163 Pitt Street, Sydney
### WIRELESS WEEKLY

**Friday, December 10, 1927**

#### NIGHT SESSION

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 p.m.</td>
<td><strong>Nature Session</strong></td>
</tr>
<tr>
<td>8:15 p.m.</td>
<td><strong>Orchestrinal Concert</strong></td>
</tr>
<tr>
<td>9:00 p.m.</td>
<td><strong>Nautical Session</strong></td>
</tr>
<tr>
<td>9:15 p.m.</td>
<td><strong>Children's Session</strong></td>
</tr>
<tr>
<td>10:00 p.m.</td>
<td><strong>Dynamite Night</strong></td>
</tr>
</tbody>
</table>

#### 3AR, MELBOURNE

**Thursday**

- **Morning News Session**: 11 a.m. to 12 a.m.

- **Murray Comedy Session**:
  - 9:45 p.m.: "Do and Save the King"

**Friday**

- **Morning News Session**: 11 a.m. to 12 a.m.

- **Murray Comedy Session**: 9:45 p.m.: "Do and Save the King"
Friday, Jan. 6

2FC, SYDNEY.

EVENING SESSION.

9 p.m.—Newspaper Reports: Nick Reservoir.
20 p.m.—Carnival Prize Draw (1st.—2nd.—3rd., etc.)
21 p.m.—Second Prize Signals.
21:30 p.m.—End of Radio Advisory by Melbourne.

MORNING SESSION.

6 a.m.—Radio Advisory by Melbourne.
6:30 a.m.—Radio Advisory.
7 a.m.—Manual Numbers.
9 a.m.—Magazine Advertisement by Mr. Martin Partnership.
10 a.m.—Carnival Prize Draw (4th.—5th.—6th., etc.)
10:30 a.m.—End of Radio Advisory by Melbourne.

Better reception at less cost

Columbia Heavy Duty ‘B’ Batteries do two things—they last twice as long, under the same conditions, as light duty batteries and they greatly improve the reception.

For every hour of use you now get from your smaller batteries, you will get two from either the Columbia No. 6170 or the even more powerful, longer-lived Columbia Layered No. 6486. You will get a clearer tone, greater volume and greater distance. For genuine economy and satisfaction, insist upon one of these two batteries.

Columbia Radio Batteries

They last longer

Friday, December 30, 1937.

WIRELESS WEEKLY

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National Library of Australia
WIRELESS WEEKLY

Friday, December 30, 1927.

3.30 p.m. — "Home Band" (Melbourne).
4.45 p.m. — "Jubilee Bells"."(Adelaide).
5.0 p.m. — "Serenade" (Adelaide).
5.15 p.m. — "Merry-Go-Round" (Sydney).
5.30 p.m. — "Serenade" (Adelaide).
5.45 p.m. — "Morning Bells" (Sydney).

EARLY EVENING SESSION.

3.30 p.m. — "The Chimes of GL.".
4.30 p.m. — "The Merry Bells". (Melbourne).
5.30 p.m. — "The Nightingale" (Adelaide).
6.30 p.m. — "The Nightingale" (Adelaide).
7.30 p.m. — "Morning Bells" (Sydney).
8.30 p.m. — "Morning Bells" (Sydney).
9.30 p.m. — "Morning Bells" (Sydney).

MIDNIGHT SESSION.

11.00 p.m. — "The Fountains of SIR.".
11.15 p.m. — "The Nightingale." (Adelaide).
11.30 p.m. — "The Nightingale" (Adelaide).
12.00 a.m. — "The Chimes of GL.".
12.45 a.m. — "The Chimes of GL.".
1.30 a.m. — "The Chimes of GL.".
2.00 a.m. — "The Chimes of GL.".
2.30 a.m. — "The Chimes of GL.".
3.00 a.m. — "The Chimes of GL.".
Radio Sets Built
To Any Circuit
Free of Charge

G. C. BEARDSMORE
(Late Radio Engineer, Harrington, Ltd.)

NEWCASTLE CHAMBERS,
26 Market Place,
Sydney, "Teera 17332"
MIDDAY SESSION.

WIRELESS WEEKLY.

Friday, December 26, 1937.

Page Sixty-Two.

WIRELESS WEEKLY.

MIDDAY SESSION.

11.40 a.m.—Description of CHESSER MATCH DUPLICATE TEAM, by Mr. G. M. Walsby, Melbourne City Council Grounds, Melbourne. 11.50 a.m.—Description of TENNIS, East应用程序 by Mr. A. J. Brown, Melbourne City Council Grounds, Melbourne.

Evening Session.

6.30 p.m.—Radio Serenade, by Mr. C. J. Banks, Melbourne City Council Grounds, Melbourne.

3LO, MELBOURNE.

Saturday.

MORNING SESSION.

11.00 a.m.—FOR ARGUS AND HIS SYNOPTIC STUDY, by Mr. A. J. Banks, Chifley. 11.05 a.m.—THE PREMIER POURER, by Mr. J. J. Banks, Chifley. 11.10 a.m.—FOR ARGUS AND HIS SYNOPTIC STUDY, by Mr. A. J. Banks, Chifley.

Afternoon Session.

3LO, MELBOURNE.

Saturday.

HARRY SHUGG'S STUDIO.

12.00 p.m.—Description of Sandown Park Races, by Mr. J. J. Banks, Chifley.

6.30 p.m.—For ARTHUR RITCHIE AND HIS SYNOPTIC STUDY, by Mr. A. J. Banks, Chifley. 6.45 p.m.—Description of CHESSER MATCH DUPLICATE TEAM, by Mr. G. M. Walsby, Melbourne City Council Grounds, Melbourne. 6.50 p.m.—Description of TENNIS, East applications by Mr. A. J. Brown, Melbourne City Council Grounds, Melbourne.
All Readers’ Queries Answered Here.

W.A. (LEICESTER):—It is understood that the potentiometer is not used in the circuit shown, but is merely included to balance the output. The circuit diagram in the article is very similar to the one you have described, but there is no mention of the potentiometer being used. What is its function in the circuit?

W. H. (BANKSTOWN):—The circuit diagram shows a simple 100-watt type of receiver. It appears to be similar to the one described in the previous article, but there is no mention of the use of a heterodyne detector. Is this a common practice in practice or is it used only in certain types of receivers?

H. L. (STAMFORD):—I would be interested to know if the circuit diagram is complete. It is mentioned in the article, but there is no indication of the use of a crystal detector. Is this a common practice in practice or is it used only in certain types of receivers?

J. T. (TUGGERANONG):—I would be interested to know if the circuit diagram is complete. It is mentioned in the article, but there is no indication of the use of a crystal detector. Is this a common practice in practice or is it used only in certain types of receivers?

A. H. (MARSHVILLE):—I would be interested to know if the circuit diagram is complete. It is mentioned in the article, but there is no indication of the use of a crystal detector. Is this a common practice in practice or is it used only in certain types of receivers?

M. J. (TINTON):—I would be interested to know if the circuit diagram is complete. It is mentioned in the article, but there is no indication of the use of a crystal detector. Is this a common practice in practice or is it used only in certain types of receivers?

C.W.G. (HIGHTOWN):—I would be interested to know if the circuit diagram is complete. It is mentioned in the article, but there is no indication of the use of a crystal detector. Is this a common practice in practice or is it used only in certain types of receivers?

J.W.C. (RANDWICK):—I would be interested to know if the circuit diagram is complete. It is mentioned in the article, but there is no indication of the use of a crystal detector. Is this a common practice in practice or is it used only in certain types of receivers?

E.R. (MONTAGUE):—I would be interested to know if the circuit diagram is complete. It is mentioned in the article, but there is no indication of the use of a crystal detector. Is this a common practice in practice or is it used only in certain types of receivers?

D. G. (ROSEHILL):—I would be interested to know if the circuit diagram is complete. It is mentioned in the article, but there is no indication of the use of a crystal detector. Is this a common practice in practice or is it used only in certain types of receivers?
The following Test: Set out the main high power wireless stations of the world. Most of these stations may be heard by the amateur in Australia, who can send Morse, providing he takes the correct steps. The usual sole or broadcast transmitters have only a capacity of from 200 to 600 watts, and a considerable difference in the number of turns in necessary if it is required to bring it in, any handsome (SWC), on 32-310 watts.

NAME OF STATION   POWER IN WATTS

1. HAMBERLEY, VIC  200
2. GLADSTONE, QLD  300
3. PORT MACQUARIE, NSW  400
4. MELBOURNE, VIC  600
5. SYDNEY, NSW  800
6. MACKAY, QLD  1000
7. DARWIN, NT  1500
8. CAIRNS, QLD  2000
9. DARWIN, NT  2500
10. QUEENSLAND, QLD  3000

How can we help you out of this trouble?

A: I rather report to inform you that the small 4 watt receiver you have is not suited for the dialry receiver and you must send in 2 spares to be found O.C. with this advantage.

W.W. (WINDERMERE) - I have used the "SWC" small receiver before, but found it was not worth my money, as it would only work when I was on the ground. My set at the moment is not receiving well, and I can not understand why.

W.W. (BANNOOK) - For the past 8 months the set has been working very well at home, but it does not work well in the city. The set is in the usual condition.

W.W. (MELBOURNE) - I have found the "SWC" small receiver works very well at home, but it does not work well in the city. The set is in the usual condition.

W.W. (BANNOOK) - For the past 8 months the set has been working very well at home, but it does not work well in the city. The set is in the usual condition.

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A Dry Cell Audio Stage Valve

With the Output of a Storage Battery Valve

RADIOTRON UX 120

Characteristics:
- Plate Terminal Volt: 300
- Plate Current: 125 milliamps
- Plate Voltage: 250

Price: 12½ Each

To obtain the full advantage of power valves, a higher plate voltage than is customary should be employed. This is true in cases where greater grid or "C" batteries voltage for the correct operation of the valves. It is essential that a grid or "C" battery be used with proper value, with ratio their consumption of plate current is so great as to exhaust the high tension battery rapidly.

Columbia 22½ Volt. Bias Battery
No. 4768

This battery may be used as a "D" battery in parallel cases. It is especially designed for direct or continuous use with storage valve RADIOTRON UX 120, and similar. Provided with four separate sections giving regulated voltage of 22½, 10½, and 10½ volts. The voltage of plate current rise to 2½ volts, and 2½ volts respectively. Dimensions 1½ by 1½ by 3½ inches.

Price: 2½ Each

Write To-day for FREE Illustrated Booklet

"Choosing and Using the Right RADIO Batteries"

No. 4768

Menzies, Amsden-Patience Wireless (A'teli) Ltd.
47 York Street, Sydney

Please forward one year Free Illustrated Booklet "Choosing and Using the Right RADIO Batteries.

Name:

Address:
On the selection of a LOUD SPEAKER.

Your Loud Speaker demands as much care in its selection as does a new frock, a car or a brand of whisky, for upon it alone depends the pleasure to be derived from radio.

One loud speaker may look just the same as another. It may be lavishly ornamented, but one does not choose a cigar because of an ornate band nor a whisky because of an elaborate label. It is, however, safe to choose from an established brand—one with a name.

In loud speaker history the name Amplion looms large. Produced by a firm specialising in loud speaking telephones, and with 40 years' experience to draw upon, the Amplion has firmly established itself as the "World's Standard Wireless Loud Speaker." It has achieved this by sheer outstanding merit.

Further, the name behind the goods is your safeguard. Every Amplion is backed by the famous guarantee of performance and service. The cheap foreign instrument may go wrong and be useless, but if by any mischance something should happen to a British Amplion, it will be quickly rectified.

Make your choice an Amplion, and join the ever-growing band of upwards of half a million satisfied users.

THE WORLD'S STANDARD

Amplion Loud Speakers are obtainable from
All Radio Dealers throughout Australasia.

When there is a better Loud Speaker it will be an AMPLION.