

WIRELESS WEEKLY

Registered at the G.P.O., Sydney, for

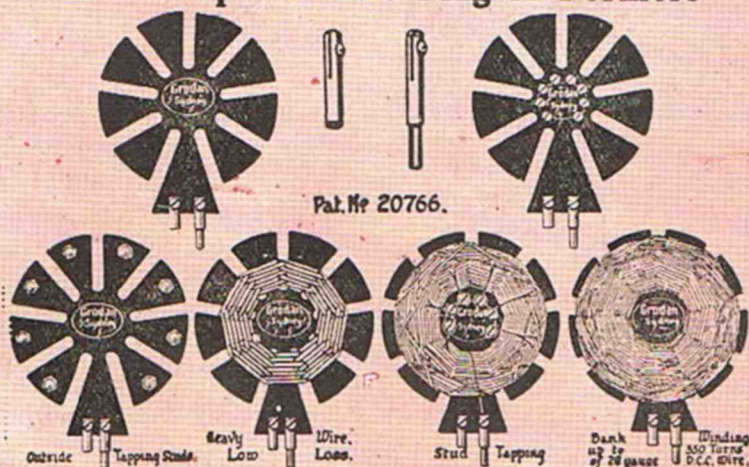
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VOL. 7. No. 5.

FRIDAY, NOV. 27, 1925.



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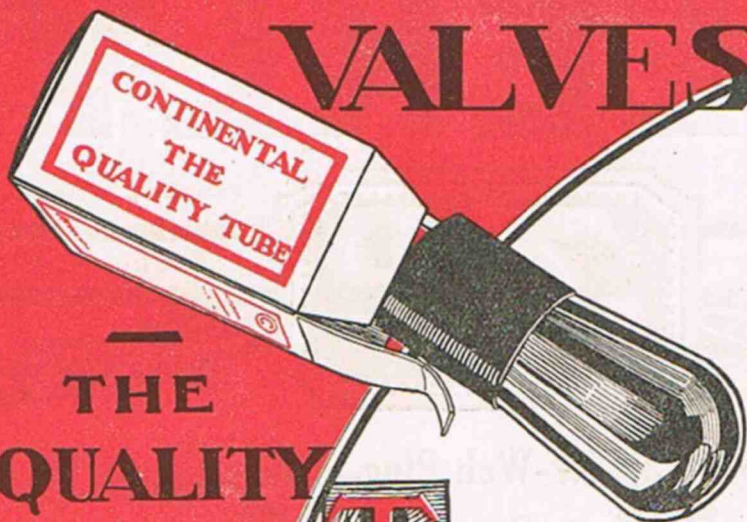
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When the Australian Wireless Co. entered into the radio business of Australia, they realised that the keynote of radio success was the standardisation in the manufacture of quality radio goods, and to achieve that result they engaged expert radio engineers to design and develop highly efficient radio receivers.

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radio frequency, detector, and two audio frequency valves using an inductively coupled tuned aerial, the radio frequency stages being tuned anode. All condensers are vernier, operated, while the constructional design and workmanship are excellent.

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Every set guaranteed 12 months' free service.

Highest Quality. Simple, Reliable, Sharply Tuned, and Efficient.

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2 VALVE SETS	£15 15 0
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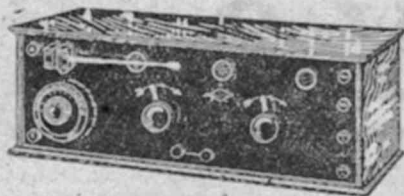
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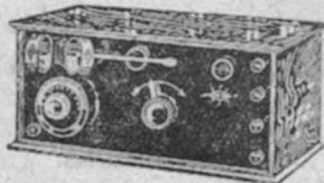
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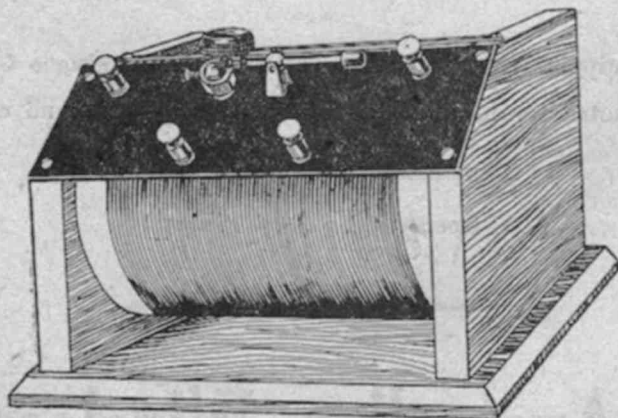
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WIRELESS WEEKLY

Phones: Redfern 964 and 930.

Official Organ of the New South Wales Division of the Wireless Institute of Australia, with which are incorporated the Affiliated Radio Societies and the Australian Radio Relay League.

Editor: A. W. WATT

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

Subscription Rates.—Twelve months (52 issues), 13/6, post free. Six months (26 issues), 6/6, post free. Single Copies 3d. each, or post free 4d.

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"Questions and Answers." All requests calling for technical advice or drawings MUST be accompanied by postal note or stamps to the value of 1/6. A maximum of four questions is allowed.

Agents in Great Britain.—The Colonial Technical Press Ltd., Dudley House, Southampton Street, Strand, W.C. 2.

All accounts should be made payable to Publicity Press Ltd., 12/16 Regent Street, Sydney.

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WHAT OF A LISTENERS' LEAGUE?

Broadly speaking, there are, aside from wireless traders, three types of people interested in wireless. They are professionals, amateurs, and broadcast listeners.

The interests of professionals both afloat and ashore are protected by an organisation which has been successful in raising their status far above that of any others in the world. In addition to this organisation, there was formed in Sydney some time ago an Institute of Radio Engineers, designed to further the interests of professionals engaged in wireless pursuits ashore, and to give to their efforts the value of membership in an Institute which recognises none but the highest qualifications.

Amateurs are solidly entrenched behind the Wireless Institute of Australia or else as members of clubs to which further weight is added by the fact that practically all of them are affiliated with the Wireless Institute, a strictly amateur organisation whose main purpose is to consolidate the amateur movement throughout Australia and to protect the interests of amateurs, both individually and collectively.

The main body of wireless enthusiasts, the broadcast listeners, comprising over 90 per cent. of the total number interested in wireless, have no representation of any kind, except, of course, that it is the duty of the Government to see that they are treated fairly. Now, it is high time some sort of a body was formed in New South Wales to represent those who really constitute the mainstay of broadcasting to-day, and to whose financial and moral support is due the progress of the wireless industry.

The idea of a Listeners' League is not a new one. Such a League has been functioning for some time in South Australia, and the formation of a similar organisation is well under way in Victoria.

"Wireless Weekly" is prepared to support a New South Wales Listeners' League to the fullest possible extent, in the belief that, if properly conducted, it could achieve a great deal of good.

It needs organising and placing on a sound basis, however, and to that end we welcome suggestions from readers as to how a Listeners' League might be formed and pushed along.

A. W. WATT.



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Wireless Institute of Australia

N.S.W. Div. Inc.



Incorporating the Affiliated Societies and The Australian Radio Relay League

W.L. Carter, Hon. Sec.
Box 3120 G.P.O. Sydney
Phone B2235
A.H. Perrett Publicity Officer

Standard Calibration Signals.

These signals are now being sent out from 2WI with the same procedure as has always been adopted at 2CX. It should be noted, however, that on and after December 8, 1925, announcements will be made on 90 metres instead of 180 metres, as at present. In all other respects the calibration signals will be exactly the same as they have been hitherto.

Static Tests.

The return of the forms issued in connection with the recent static tests, have been steadily coming to hand, and all those who have not yet forwarded their returns should do so immediately. It should be particularly noted that it may be some time before the results of these tests are available as each one has to be examined and dissected, and the results tabulated before any definite conclusion can be drawn. The following forms are hereby acknowledged: Messrs. L. A. Bright, C. R. Brown, L. R. Butler, D. G. Campbell, H. R. Carter, A. B. Churchward, R. H. Clark, S. Dobbs, N. D. Hale, G. E. Hewett, P. M. Hoare, C. T. Horne, H. Ives, A. F. Jacob, Jeffery & Moore, L. O. Johnson, J. Kille, F. N. Kimpton, R. A. Lawrenson, S. McCarthy, A. E. Martin, S. Nathans, A. H. Nelson, T. I. Newport, Harold Norris, E. N. Oates, F. J. Palmer, G. G. Phillips, F. Radford, G. A. Sackett, L. C. Talbot, C. W. Tanner, J. Taylor, L. Todd, H. W. Toyer, S. Turner, E. Walesby, J. J. Walmsley, C. J. Williamson, A. Winkleman (2), O. W. Wright, and Rev. W. Brooke.

Monthly General Meeting

At the monthly general meeting of the New South Wales Division of the Wireless Institute of Australia, held at the Royal Society's Hall, 5 Elizabeth Street, Sydney, on Thursday, November 19, 1925, at 7.45 p.m., the following new members were elected, as members:

Child, N. K., "Narooma," Marisien Street, Marriekville.

Stewart, W. A., 15 Belgrave Street, Waverley.

Williams, E. J., 51 Ocean Avenue, Edgecliff.

Associate Member: Whitfield, J., "Shalimar," Condomino St., North Harbour, Manly.

The lecture of the evening was by Mr. L. S. Lane, who took for his subject, "The Development of the Super Heterodyne." The subject was very well handled by the lecturer who clearly outlined the historical development of this important receiver, showing clearly the early obstacles and how they have been overcome. Reference was made to circuit diagrams and the whole lecture was one of great interest and of an extremely instructive nature. At the conclusion of the lecture many questions were asked relative to the subject of the lecture which were very fully answered by Mr. Lane.

A very welcome visitor to the meeting was Mr. L. Waters, 4AC, Rankine St., Innisfail. In reply to an address of welcome, Mr. Waters gave a very interesting account of the difficulties of work in the far north, and also gave details of some very creditable work performed by him.

Traffic Bureau.

The Traffic Bureau of the New South Wales Division of the Wireless Institute of Australia has now definitely commenced operations. The scheme has been under consideration by the Executive Council for some time and although matters have not yet been finalised traffic is worked on 90 metres from station 2WI every Sunday and Wednesday night from 7 to 7.30, and 10 to 10.30. The Delegates' Council have appointed a sub-committee to co-operate with the sub-committee of the Executive Council in furtherance of the scheme, and it should not be long now before very definite results are attained.

All stations hearing these signals are asked to send reports to Station 2WI, Box 3120P., G.P.O., Sydney.

Round the Clubs

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

THE LEICHHARDT AND DISTRICT RADIO SOCIETY.*

(Licensed Experimental Transmitting Station 2LH)

On the evening of Tuesday, November 17th, members of the Leichhardt and District Radio Society held their 151st general meeting at the club room, 176 Johnston St., Annandale.

There was the usual excellent attendance, and after the Hon. Secretary had made his announcements, which included a reminder to members that they were invited to attend the Wireless Institute's general meeting, to be held on the following Thursday night, and a few congratulatory remarks to those present upon the Society having ranked first at the end of the second quarter of the period covered by the MacLurcan Clup Competition, the main business of the evening was proceeded with. This consisted of the 11th lecture of Syllabus No. 4, and Mr. H. W. Loomes was called upon to deal with the 5BG receiver. Mr. Loomes has spent a considerable amount of time in the carrying out of experiments with this particular circuit, and on that account is in a position to deal authoritatively with it. Its many good points were thoroughly dealt with, and its advantages as an economical receiver, combined with sensitiveness and reliability were strongly stressed. The usual batch of questions followed at the conclusion of the lecture, and the amount of interest which the subject had aroused amongst members was amply proved by the large number of questions which Mr. Loomes was called upon to reply to. The questions being disposed of, a hearty vote of thanks was carried by acclamation.

Next Tuesday evening the Society will hold its 37th monthly business meeting, at which applications for membership will be dealt with, and other formal business on hand disposed of. The 12th lecture of the 4th syllabus will also be delivered at this meeting, and members are looking forward to hearing Mr. J. R. Alexander talk to them on the subject of "The Growth of Crystals." The Society's 156th general meeting will follow on December 8th, and at this meeting members will be honoured by the presence of Mr. W. Lambert Hamilton, so well known to experimenters as "Insulator." Mr. Hamilton will attend the meeting for the purpose of delivering a lecture entitled "Reflex Circuits and the Principles Underlying Them," and he is already assured of a big audience.

The Society has any amount of room for new members, and inquiries from those interested are in-

vited. They should be forwarded to the Hon. Secretary, Mr. W. J. Zech, 145 Booth Street, Annandale, and from whom a ready response will be received.

THE ELSTERNWICK RADIO CLUB.

(Affiliated with W.I.A.)

This club met on November 9th, when Dr. Loftus Hills, D.Sc., gave the first portion of a lecture on the theory of the thermionic valve. This portion dealt very fully with the intensely interesting, purely scientific side of valve operation, in that it comprised a study of molecules, atoms and electrons. Members were very much impressed by Dr. Loftus Hill's descriptions of these minute entities and the startling illustrations, which gave them a good idea of the actual size of the electron.

A meeting was also held on November 16th when Mr. C. W. Slade, Technical Editor of Wireless Weekly and Radio, addressed the members. Mr. Slade gave the club some very interesting information regarding clubs in N.S.W., and some very welcome suggestions toward improving the Victorian clubs. He then proceeded with a very instructive lecture on how to make the transformer and necessary apparatus for a battery charging outfit. Simplicity of explanation, with due regard to detail made this lecture very acceptable, and it was much appreciated by all present.

Mr. Slade's co-operation with us forms the first link between N.S.W. and Victorian clubs and we hope that this will be followed up in future radio club activities.

This club is always anxious to assist experimenters and broadcast listeners, who are invited to send questions or details of any difficulties they may have to the Secretary, or, better still, bring them along to club meetings. Club members will always render practical assistance to any fellow member requiring it. Immediately you strike trouble drop a line to the Secretary, who will send you the name and address of the nearest committeeman to you, and he will see to it that you are assisted.

The next meeting will be held in the A.N.A. Hall, Regent Street Elsternwick, when, it is hoped, Dr. Loftus Hills will continue his lecture on valve theory. Visitors cordially invited.

All inquiries should be addressed to L. Y. Yeland, Hon. Secretary, 7 Rusden Street, Elsternwick.

STRATHFIELD AND DISTRICT RADIO CLUB *

Owing to heavy rain, we had a very small attendance at our usual weekly meeting, held at the club rooms, corner Albert Road and Duke St., on the 18th instant.

After the usual correspondence had been dealt with, Mr. Lawrenson proceeded with the showing of a film entitled, "Electricity in the Steel works," kindly lent by the Australian General Electric Company Ltd. This film shows how electricity is used for loading, unloading and feeding the huge furnaces of the large steel manufacturers, and how the different mills are fed and controlled from beginning to end.

On the evening of 11th instant, the first business was to admit a new member, after which Mr.

On account of the shipping strike, our regular shipment of paper has been held up.

We have, therefore, been compelled to substitute the paper used in this issue of Wireless Weekly.

Jacob conducted the Dutch Auction, which had been unavoidably held over from the previous meeting. This was a great success.

After this the questions, which had been drawn from the box at the previous meeting, were answered, with the result that quite a number had various little difficulties explained.

Inquiries regarding membership, etc., addressed to the Hon. Secretary, 1 Mills Crescent, Burwood, will receive prompt attention.

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Two grades in Sealed
Boxes. Retail Home 1/- & 1/6
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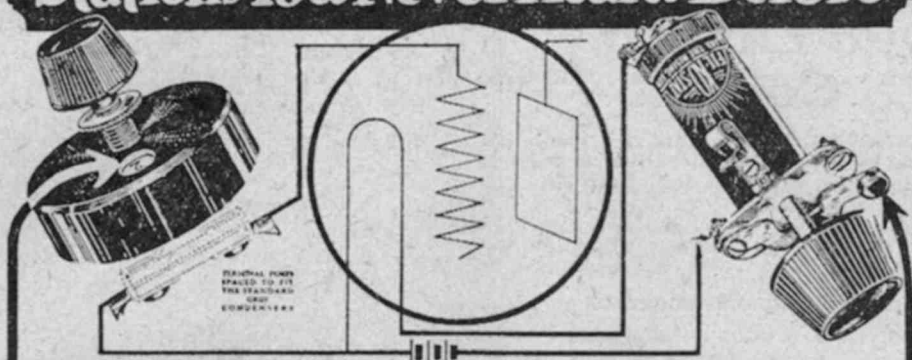
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-thru scientific tube tuning

The most important (and most neglected) tuning unit on your set is the tube. It is the one thing you can adjust to bring weak stations to audibility—to eliminate distortion on local programs. Coils and condensers are easily tuned to incoming waves, but wave-length isn't everything. The antenna gets distant broadcasters but their signals never reach the phones unless you tune the tube to the different characteristics of the weak, distant stations. Here are two instruments distinctly designed to improve reception through their ability to control tube action—FIL-KO-LEAK to tune the grid by securing correct grid bias—FIL-KO-STAT to tune the plate-filament circuit by its control of electronic flow. Together they assure you maximum audibility, clearer signals and freedom from oscillations and other tube noises. *They bring in stations you never heard before.*

FIL-KO-LEAK
SCIENTIFICALLY CORRECT
VARIABLE GRID LEAK
Individually Calibrated

FIL-KO-STAT
SCIENTIFICALLY CORRECT RADIO RHEOSTAT
with Battery Switch

You will get stations you never heard before with FIL-KO-Leak. Clear up distortion and increase volume. You can "log" your Fil-KO-Leak as you do your other tuning units. Each Fil-KO-Leak is individually hand calibrated over the operating range of all tubes $\frac{1}{4}$ to 5 megohms. Set it for specified resistance and adjust it for best results. Resistance read in megohms through panel peep-hole. (Base-board mounting furnished.) Resistance element constant, accurate, not affected by atmospheric conditions, wear or jarring. Assures smooth, gradual control of resistance and correct grid bias. *Unconditionally guaranteed.*

Tune your tube filament with Fil-KO-Stat and receive stations you never heard before, get greater distance, louder signals, sharper tuning, freedom from tube noises. Fil-KO-Stat is the only rheostat that permits adjustment over the entire operating range of all tubes and enables you to get maximum audibility in phones or loud speaker. And now the improved model is fitted with battery switch that attaches to the regular mounting screws. Distinctly signals "on" and "off" and enables you to break circuit without changing Fil-KO-Stat adjustment. Fil-KO-Stat fits any type tube in any hook up. *Unconditionally guaranteed.*

12/6



Absolutely warranted to protect your set from lightning, with a guarantee to pay you \$100 or to repair your set, should it be damaged through faulty operation of the arrester.

The "umbrella" shield keeps dust, moisture, etc., from the insulation, preventing leakage losses from aerial to ground. This makes certain that all radio impulses reaching the antenna pass through your set, which assures maximum reception.



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SCIENTIFICALLY CORRECT
RADIO LIGHTNING ARRESTER

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Duo-Lateral Coils

"WETLESS" DUO-LATERAL COILS are wound by a special process of constant tension on the wire ensuring uniformity throughout. The self-capacity is extremely low, and the wire used is of the highest grade, the result being very sharp tuning, low high frequency resistance, and maximum signal strength.

"WETLESS" DE-LUXE MOUNTED.

The Mounted Coils have Black Celluloid strip inside Coil former, and the outside of Coils is protected with a layer of Celluloid strip, and only

Genuine Bakelite De-luxe Plugs are used,

being bound to the Coils with

Waxed Thread

and connections to plug soldered. If you are wanting high-grade Coils you cannot do better than select these.

SIZES TO SUIT ALL AERIALS.

Coil No.	Wavelength.		Unmounted.	Mounted
	Min.	Max.		
20	74	210	1/5	6/5
25	96	272	1/5	6/5
35	150	350	1/6	6/6
50	180	370	1/7	6/7
68	250	530	1/9	6/9
85	310	660	1/10	6/10
100	330	1030	2/1	7/1
120	350	1240	2/2	7/2
136	380	1400	2/3	7/3
150	430	1590	2/3	7/3
170	480	1800	2/6	7/6
200	700	2090	2/6	7/6
250	920	2150	3/3	8/3

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Australian Made.

Esperanto News

Russia's Cog in the Wheel.

Amongst those to realise the advantages of Esperanto as the world's secondary tongue, Russia is no laggard. Originating in former Russian territory, in the town of Bialystok, the language found a great number of adherents, who, despite the Revolution and subsequent disordered conditions, have grown to substantial numbers in recent years.

Wireless and its allied subjects have been eagerly taken up (as much as official restrictions would permit), and consequently it is not surprising that Radio and Esperanto are frequently combined.

For almost three years broadcasting stations have featured Esperanto items in some shape or form, prominent among them being "Central Station," Moscow. Lectures such as "The Present Financial Situation of Soviet Russia," "The Funeral Oration on Lenin," and "The Pan-Russian Agricultural Exhibition" attracted widespread interest, and the fact of them being delivered in Esperanto assured international comprehension.

These talks and lectures were gradually extended from monthly to weekly fixtures, and since October 16 of this year, Station MGSPS, Moscow (the most powerful in Soviet Russia—wavelength, 1010 metres), devotes 45 minutes on Mondays and Fridays to the systematic teaching of Esperanto. All the principal workers' clubs have wireless installations operating loud speakers, around which the Bolsheviks gather in serious vein to learn "the language of the proletariat."

After all, Russia has a few redeeming features.

More Cogs—Spain.

Three radio stations in Spain regularly put Esperanto on the air. They are Barcelona (EAJI), Viscaya (EAJP), and Bilbao (EAJ9).

When opening EAJP last July official greetings were sent out in Esperanto, and since then Saturdays are set aside as "International Language Night." Barcelona broadcasts lessons on Wednesdays, and Bilbao explains the whys and wherefores of the language every Monday. Students are certainly well catered for.

FOR SALE—AERIAL, complete with two 50-foot Masts, Guys, and Lead-in. "Clare," 63 First Street, Canterbury, near King Street.



Amateur Notes

By Q.T.C.

With the arrival of more and more broadcasting stations to the three hundred metre band, it is only natural that the ether is becoming crowded, and with that must come the bugbear of interference. The situation has not yet become serious in Australia, but in time it may be a nuisance. There are several varieties of interference that really stand out from the ruck. One of these is the jamming caused by two stations operating on neighboring frequencies. It has been established that to be safe there must be a difference in frequency between the two stations of at least 10,000—that is, there must be a difference of ten kilocycles between every station. Again, if you live close to, say 2FC or VIS, you will find that it requires much more than ten kilocycles to lose them—in fact, it will cost considerable patience and ingenuity to cut two such stations out. This is due to shock excitation. The signal is so strong that it sets up violent oscillation, which cannot be tuned out unless one travels far from the normal wavelength of the station. There are enough varieties of interference to keep one engaged for hours, but, as I said before, the position in Australia is not, as yet, very serious. Anyway, why not wait until we come to our bridges before crossing them?

The following Aussies have been punching the ether well of late, and are reported QSA in America: A-2CM, 2DS, 2IJ, 2YI, 3BD, 3BN, 3BQ, 3EF, 5DA, 2BK, 2TM, 2YG, 3YX, 2BB, 3JU, 3XX, 2AY; 2ME, 3DB, 2CH, 2IO, 3BO, 3SN. The following got through to France: 2CM, 2YI, 3BD, 3BN, 3BQ—note the way the last five crop up everywhere, 'smarvellous!!' Anyway, just consider that it was only a few months ago that we were offering a doughnut (or was it a gumdrop?) to the first bird to QSO U.S.A.! Some difference!

The Japanese station J-1AA has been of great assistance on twenty metres and elsewhere to some of our hams, and no doubt the gang would like to know something about the Oriental. His QRA is Iwatsuki Radio, Satiamaken, Japan. Antenna is sixty foot, vertical cage. There are two transmitters, one on twenty metres, the other for forty and eighty metre work. Power is usually about a quarter of a kilowatt, pushing one amp. into the aerial. A Reinartz detector and one audio complete the rigout. J-1AA will be remembered for his pioneer work with A-2CM on twenty metres.

BURGINPHONES

Australia's Best By Test

A Receiver to suit all conditions and Terms to suit every pocket.

A Radio set makes an excellent Xmas present for young or old, and is made easy by our system of extended payments.

Call, write or 'phone to

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340 Kent Street, Sydney

Box 734 G.P.O. — Phone City 141. M3069

Broadcasting Station 2 B.E.

Listen-in for it.

SOME EXPERT OPINIONS ON VALVES.

A Sydney Experimenter, who picked up MacMillan's Expedition in the Arctic Ocean, writes:—

"The Set I was using was a 2 Valve Low Loss, and the amplifier was a True Blue. They are most clear amplifiers, and the volume is equal to, if not better than —, which is noisy and microphonic. I find it impossible to work my low loss with any other Tube in the Amplifier Circuit, as microphonic noises drown the signals."

A Sydney Expert writes: "Tests made on the True Blues Power Plus (Small Socket) Valve. As Detector excellent, far superior to — Valve. Plate voltage found best was 28 volts. As Audio Amplifier very good, indeed, with 90V. on plate and 3 volts bias. Volume and tone were excellent. As Detector or Audio Amplifier they undoubtedly excel all other types of Valves tested. The Power Plus True Blue is very easily neutralised on account of the low internal capacity, and it has the added advantage that the same filament voltage can be supplied as with the larger valves, thereby obviating the necessity for a larger resistance Rheostat, which is necessary with other small Tubes."

LEETON, N.S.W.: "Have had splendid results with these Valves, and so far have found none so good, and can recommend them to the most exacting Radio enthusiasts."

A SYDNEY TRADER WRITES: "After exhaustive tests, we found True Blues superior to any we have yet used. The volume and clarity are excellent, and the absence of microphonic noise is marked. It may interest listeners to know that we found a marked improvement by using the Valves in the popular S.T.100 Circuit. A further feature is the low anode voltage required for excellent results."

A LITHGOW RADIO DEALER WRITES: "The True Blue Valves I purchased from you have proved all that is claimed for them. I have a 6 Valve Set, and after substituting True Blues for another well known make of Valve the results were astounding; they not only reproduce clearer and sweeter music, but give a Set a new lease of life. With reference to the reception of Station K.D.K.A. by me, using only one True Blue as Detector, I held with ease this Station's programme on the 19th instant. The music and speech were quite clear, and quite distortionless. I also had the same results by trying three different Valves of the same make, viz., True Blues."

A SYDNEY RADIO ENGINEER WRITES: "After exhaustive tests, I have no hesitation in recommending True Blues, on actual comparison with 6 other types of American Valves. I found them far better as Detector and Audio Frequency Amplifiers."

A SYDNEY TRANSMITTER, amplifying with True Blues, writes: "Are perfectly satisfied, from the numerous reports on the quality of our music, that these Valves amplify without distortion. We also find there is an absence of microphonic noise. These Valves function at maximum amplification at much below their rated filament voltage, and are altogether satisfied they fulfil the claims made for them."

ONE OF MELBOURNE'S LEADING EXPERIMENTERS and expert advisers writes: "There is no doubt about their being easily the best Audio Frequency Amplifier I have so far used. To give you an idea of their quiet operation, I can use two stages of Audio on top of my 1-1 outfit with them with less microphonic qrm than there is with one stage using a — Valve, two stages with — Valves being impossible on account of this interference, while the amplification is, if anything, greater with the True Blues."

For real radio enjoyment use True Blues. They will IMPROVE YOUR SET IMMENSELY, and are cheapest in the long run and better all along.

Sole Agents:

PARSONS & WHITEMORE LTD.,

30 Market Street, Sydney.

BRIGHTON RADIO CLUB.

Report of the last meetings held at the above club: On the 5th we had the pleasure of welcoming Mr. Slade, Technical Editor of the Wireless Weekly, Sydney. Mr. Slade journeyed here by car by way of Prince's Highway. His specially constructed receiver revealed some very interesting information of the receiving conditions along the route. At the meeting Mr. Slade spoke of the activities and conditions of the Sydney clubs and the N.S.W. Division of the W.I.A.; also some very complete information concerning the valve type of rectifiers, and hints on charging storage batteries. A short wave receiver was also described. A hearty vote of thanks was extended to Mr. Slade for his interesting address.

Mr. Slade also lectured on the 19th November, his subject being Wireless on Submarines. This was highly interesting and was greatly enjoyed from start to finish. Without a doubt it was one of the finest lectures ever delivered at the club.

NOTES OF INTEREST FROM QUEENSLAND.

Those Programmes.

Many are the complaints we hear nowadays about the programmes of 4QG. Many people complain that there are too many gramophone records and pianola items, and that there is too much of a harmony between each night's programmes.

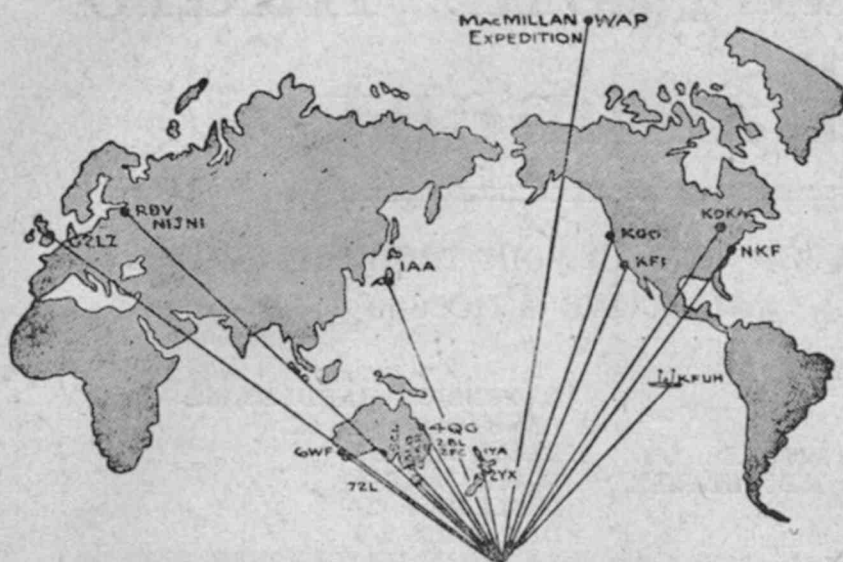
The management of the station is not at all to blame. The talent of Brisbane is being sought very carefully and only the best artists are allowed to appear. It must also be remembered that the station is temporary, and that the complainers may rest assured that the faults of the small station will be rectified in the bigger 4QG.

Pirating.

In Queensland, unfortunately, there are still many who listen without a license, but in the near future these mean individuals will be very much interfered with by the authorities. Since the commencement of broadcasting in Queensland, new licenses have been issued at the rate of 100 per month, and at the present time there are about 2,000 licenses, but this does not tally with the components sold, and it is easily seen that many here are behind the law.

2MK, Mockler Bros., Bathurst, N.S.W., operates on 250 metres. He may be heard from 7 p.m. to 8 p.m. daily, except Sunday. On Saturday, 2NK broadcasts a studio concert from 8 p.m. to 11 p.m. Sundays, Church Services at 11 a.m. and 7 p.m. Wednesdays, a band concert at 8 p.m. Some good stuff is put out by this station.

ROUND THE WORLD with a UDISCO SUPER SIX



Until, by the appointment of Agents throughout Australia our receiving sets are made readily available to the public, we shall continue to sell receiving sets at retail.

Radio parts we will continue to sell wholesale to certified Dealers only.



DISTANT stations are being tuned in daily throughout Australasia by satisfied owners of Udisco Super Sixes.

These sets are perfect. Multiple genius is built into every one. For the past three years the most eminent radio engineers of America and Australia have collaborated and the Super Six is the result.

The Udisco Super Six covers a wave band ranging between 20 and 2000 metres, and is the only set in the world employing radio frequency that will do this.

To select any desired station just turn one knob. Cumberseme plug-in coils are altogether done away with.

The tone of the Super Six is a special feature and experts have volunteered the opinion that it is superior to any other set they have yet heard in Australia. Music and speech comes through with wonderful clarity, volume and naturalness of tone.

The Udisco Six is built into a polished cabinet with an inclined panel, and is a remarkably handsome piece of furniture.

Retail Prices

Udisco Super Six on Stand complete with Music Master Loud Speaker, Batteries, Valves, and Aerial Equipment.

£ 110

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CELLULOID STRIP FOR H.C. COILS,
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BALDWIN HEADPHONES, 39/6
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RHEOSTATS, 30 ohm, 3/3
TERMINALS, INSULATED, per dozen,
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VALVES.—We have a few valves that we are prepared to sell
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VARIOCOUPLER, 4/-
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PRESSED NUTS, ¼in., HEXAGON, per
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If it is not listed ask for it

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THE RESONATONE DE LUXE

A RECEIVER FOR AUSTRALIAN CONDITIONS

By "SYNCHRONOUS"

IN these days one hears little else but the virtues of the Super. Het. There is nothing that can be suggested to supersede the het., nor anything that can be suggested to improve upon it, but it takes a clever amateur and a thorough understanding of the theory and practice of the super het. to make it work. This is a great drawback, and one which many manufacturers have tried to eliminate by putting on the market a set of components warranted to deliver the goods. Unfortunately, however, the majority of super hets. have been designed to cover the short waves only, which is rather a big drawback to their use under Australian conditions.

Bearing this in mind and also our great friend Father Static, the writer set about designing a loop set workable under all conditions of weather, and which could be relied upon to give consistent reception of all Australian stations. Note that no regeneration, earth or outside aerial are used, consequently one had to depend upon a multi-stage high frequency set which would have all these attributes.

Radio fans are very keen these days in making one tin of polish clean a whole street, i.e., they must have all valves working at their maximum efficiency. To do this the various stages of improvement in radio have been followed with dog-like precision. First came aperiodic H.F. transformers, tuned impedance, the reflex and finally the neutrodyne, all of which are distinct improvements. In this set advantage has been taken of the careful manufacture of H.F. transformers of English type. Being restricted to various wavelengths, they are interchangeable and work at their maximum

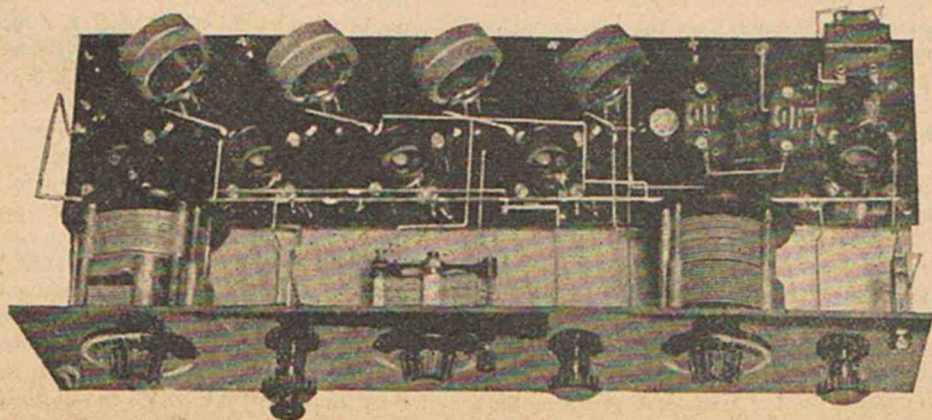
efficiency when tuned. To many this Igranic transformer needs no introduction, but merely calls to mind their overlooked capabilities in the craze for low loss.

The receiver also brings back the much discussed crystal, and in doing so, the writer strengthens his ground by the fact that as the set does not have any regeneration, the valve detector is unnecessary and that a plain straight-forward valve detector is little better than a good crystal. As it was necessary to do away with as many controls as possible this crystal was of the fixed type, although the ordinary crystal detector may be used providing it is a stable one.

No neutralisation by the condenser method is provided, for the following reasons: This is generally attained by a variable condenser of very small capacity. It is adjusted to a given setting that will balance the valve capacity.

This is a failure unless magnetic coupling is avoided and to this end coils are mounted at angles. Also there must be no stray coupling due to capacities built up into the wiring of the set. All this works out satisfactorily if built by an expert, but the average fan is not; consequently all attempts to kill of oscillations by neutros fails except at the sacrifice of efficiency. Hence the old method of controlling oscillations by the lossor or potentiometer was reverted to, with little trouble and good results.

The fundamental circuit of the high frequency side is similar to any other H.F. circuit, except that the last H.F. valve is reflexed more to save space, than economy. Any further attempt to reflex should be shunned as it is rather tricky. In any

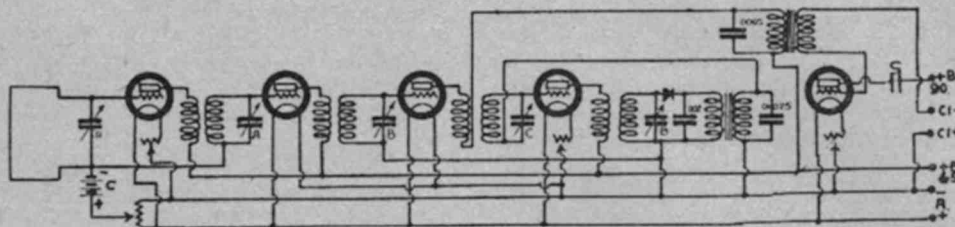


The Finished Receiver.

BURGESS—"THEY'RE WITH McMILLAN EXPEDITION"—BATTERIES

case there is no reason to do so as it then tends to become somewhat of a freak circuit with which fans have been loaded up too much. None of them work any better than a standard circuit. The circuit here represents all it is possible to achieve as to distant reception, tonal quality, and volume with the possible exception of the Super Het.

On the audio side there is little room for improvement, although resistance coupling would probably give better tone if used instead of the transformer in the last stage. The transformers, De Forest (or any good make), shows very flat amplification curves, hence are utilised here. If resistance coupling is used it must be remembered that the voltage amplification factor of the valve is the only amplification. Consequently, it would be advantageous to use valves of high amplification factor, e.g., the DV5 or DE5B.



The Circuit.

This set is distinctive in its class, in that it employs a loop solely as its collective agency. Seeing that this method is convenient for portable use is considerably easier than winding coils or installing an outside aerial and, greatest of all, it obliterates static to a greater extent than any other device, it is remarkable that these advantages have not been utilised to a greater extent. It may be pointed out that any number of valves can be used with a loop with only a small percentage loss of efficiency.

The synchronisation of the loop and the first H.F. transformer is necessary as the first double condenser tunes both. If they are not matched then one may expect some stations to come in on two different settings of the first dial, infrequently on the upper wavelengths but more so on the lower. It is easy to determine which coil is off, since the point where the signal comes in loudest is the inter-stage transformer. Suppose a station comes in on 27 and 30 with 30 as the loudest. The natural period of the loop would therefore be greater than the period of the transformer and, vice versa, i.e., the inductance which has the greater dial reading has the lower inductance. It is therefore necessary to shift the clip on the loop either way till the two readings on the first dial synchronise.

If, however, the set is built by a radio fan in the country, the difference in the settings may destroy the sensitivity of the set. This may easily be remedied by setting up a buzzer wavemeter as shown in sketch 1. The condenser is set at any reading and the buzzer set going. This enables the fan to easily synchronise the loop and the first transformer.

No written explanation will be given as to the wiring itself as it may easily be followed from the diagram, the layout and the photo. The dotted lines represent those underneath the rear panel, whilst the thick lines are those above. Particular care should be taken in wiring the H.F. transformers, so that the high potential sides of each coil are as far apart as possible to avoid leakage losses while the low potentials are side by side. Batteries and ground always are "low" potential.

On the inside of the transformer the manufacturers have pasted a wiring diagram which should be strictly followed. If the grid and plate connections are run near one another or parallel, an obnoxious form of coupling and loss will occur.

If the wiring diagrams and details of the set have been followed, little or no trouble may be expected, as the set was first built introducing as many points of misfortune as were possible, each one being then analysed and the set rebuilt on the assumptions made. In point of fact its performance will astound many super het. fans as to the quantity and quality of tone it reproduces.

The whole set is assembled on two radion panels, the front one being 24 x 9 x 3/16 and the rear one 24 x 6 x 3/16, and a baseboard 24 x 12. In keeping with the radion panels, radion loss sockets are used, whilst the transformers are De Forest type. Any good audio transformers may be used. The Igranic transformers are the only one of their type I think on the market. Of course any other type of panelling and components may be used but be sure they are of the best make and construction. Perhaps the most important part of the circuit is the crystal detector (here a Gilfillan). Before buying one ask that it be tested and then select the one that gives the loudest signals.

BURGESS—"OVER TWICE THE LIFE"—BATTERIES.

Wireless Weekly Service Tour through Country Towns

WITH the object of giving practical assistance to our many country readers and to collect valuable data regarding the types of broadcast receiving sets necessary in certain districts, the Service car promoted by "Wireless Weekly" left the General Post Office, Sydney, at 9 a.m. on Friday, 30th October.

The car ran strictly in accordance with a previously published schedule in order that readers might meet the car should they require any accurate advice or information on wireless matters. Large numbers of people took advantage of the scheme on the trip from Sydney to Melbourne and many letters of appreciation have reach us, one of which reads as follows:

"I waited four hours to meet your Service Car, but the practical and helpful advice I received was well worth my wait."

And another writes:

"I had sent my four valve receiver to several radio men and had it rewired several times, but after your engineer had been at my home for ten minutes, he successfully tuned in 2FC—a feat I had never accomplished in daylight before."

Many and varied were the problems reported by our Engineer and the most common were caused by poor aerials, screened aerials, poor earth, indifferent wiring of component parts used, common H.T. voltages on the plates of all valves, run down A and B batteries, local generator interference, and trunk line noises. Some advice on remedying these defects will probably be very useful and so we will deal with them in the order above:

Poor Aerials.

If consistently good results are to be obtained, the whole aerial-earth system must be well insulated. The lead in must be kept moderately tight to pre-

vent swinging and the connection which passes through the window or ventilator into the house, whether it is an insulated wire or not, must be passed through a suitable type of insulator. In many cases it will be found that though the aerial itself is quite a good one, the feeder touches the iron roof on its way down into the set. Everything of course will be all right while the aerial is new but once the friction of the wire on the iron roof wears the insulation off the wire, the whole receiver will be thrown out of action.

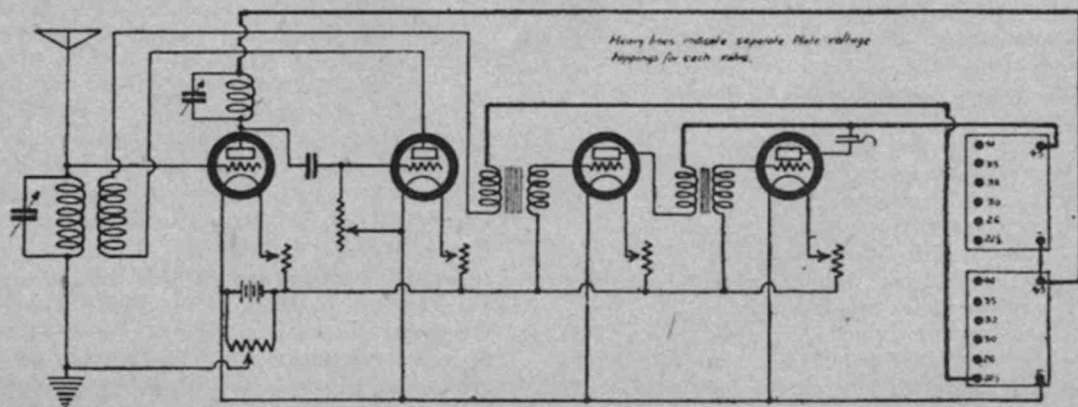
This instance is quoted in order to impress upon owners of receivers, the advisability of periodical inspection of aerial and earth connections. A connection which may look O.K. from the ground will often be found defective on close inspection.

Screened Aerials.

Don't worry about running your aerial in a direct line with your pet broadcasting station if by so doing your aerial passes close to trees, sheds, or out-houses. The very little advantage gained by the directional property of your aerial is without a doubt more than wiped out by the screening effects of trees and foliage.

Earths.

If you have not tried a counterpoise in lieu of an earth, do so at once, as in most cases it gives much better results than the ordinary earth. The counterpoise is really a duplicate of the aerial and with the same dimensions, and should be erected about ten feet above the ground and, preferably, directly under the aerial. Insulate it each end exactly the same as the aerial and take a lead to the earth terminal on your set. If the connections from the earth and counterpoise are placed in a convenient position, quick change from one to the other is possible so that comparisons can easily be made.



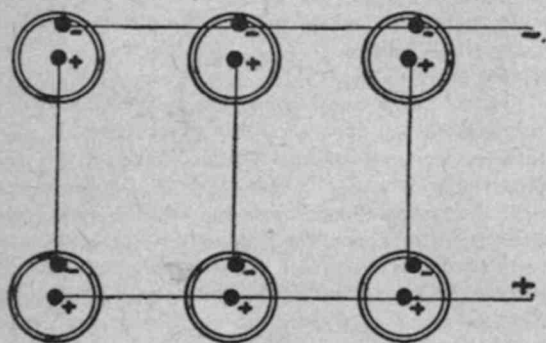
The Circuit

BURGESS—"ASK ANY RADIO ENGINEER"—BATTERIES.

A word of warning, however, is necessary: The aerial resistance is invariably lowered by the use of the counterpoise, so that the reaction coupling will need to be decreased (i.e., tickler placed further away from the primary or grid coil), and of course, the primary tuning condenser will require altering when changing from earth to counterpoise or vice versa.

Owing to the dryness evident in the country, at the moment, earths are, generally speaking, very poor and for this reason country listeners-in are strongly advised to adopt the counterpoise.

Another case which might be of interest to readers is that of a broadcast listener at Eden who was using a four valve receiver, consisting of one radio frequency amplifier (tuned plate), detector, and two audio frequency amplifiers. The set invariably gave good loud speaker results at night, but daytime reception was impossible from either Sydney or Melbourne. In the first place, common H.T. voltages were used throughout for all valves; secondly, the earth was poor due, no doubt, to the fact that there has been very little rain in that district for over three months. After the plate



voltages had been varied for the detector and R.F. amplifier valves, and a very temporary counterpoise had been erected, 2FC was successfully received in daylight. These alterations took less than ten minutes, but this story goes to prove the value of these extra little refinements.

Indifferent Wiring of Components.

This is a fault found in many receivers and owners of sets are advised to look up back numbers of Wireless Weekly where back panel views of standard one, two, three, or four valve receivers were shown in detail. The general layout of components in any hook-up, together with a pictorial view of the wiring can be readily followed from these and in our issue of April 3rd, a particularly good drawing of the back of panel view of a four valve receiver, appeared.

Common H.T. Voltages on Plates of all Valves.

This is a drastic mistake, and quite commonly

found in receivers. In commercially built sets, the common H.T. tapping is undoubtedly used for simplicity of battery connections, but the few extra instructions which necessarily accompany the extra refinement of separate tappings would undoubtedly be more than compensated for by the increased efficiency and the simplified tuning.

The audio amplifier invariably needs 80 to 90 volts, but if the same voltage is supplied to the detector, or radio frequency valves, the whole receiver will be found very hard to handle and, usually, very unstable. By spending an hour or so adjusting the plate voltages of your valves, you will be more than repaid with the results, especially where full regeneration is used.

Those who are not quite sure whether they are using a common H.T. tap or not, can see by counting the number of +H.T. leads from the receiver to the H.T. battery. See Fig. 1. If there is only one + lead and one - lead, you may be sure that you have common voltages throughout.

Run Down A and B Batteries.

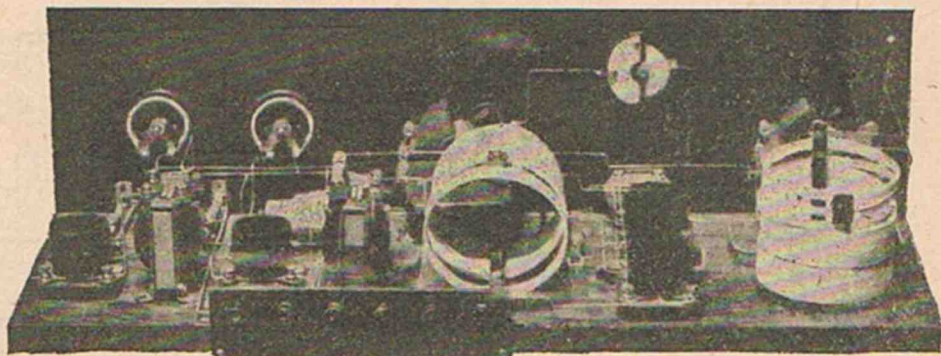
This defect was found to be the cause of poor results in many cases met with during the tour, and without a doubt, the best test for dry batteries which have given a fair service, is to replace them by new ones and compare the results. It is almost impossible to say how long an A or B battery of the dry cell type will last, but the following may prove helpful:

The amount of electricity stored in any type of dry cell depends mainly on the size of the cell; so that if you want long life, buy the large sized battery. Most of the dry cell types of valves require a 3-volt battery, i.e., 2 cells, but if the current for two, three, or four valves, has to be supplied, it is advisable to use four or six cells in parallel. In this way, the voltage is not increased but the amperage is trebled. See Sketch, Fig. 2.

In the case of the run down A accumulators, the only satisfactory method of testing is by measuring the density of the electrolyte with an Hydrometer. As soon as it reads below 1190, get it recharged. Remember, a good accumulator, well looked after, will last a life-time for radio purposes, but if it is discharged every time until it will not supply sufficient current to operate the receiver, it will probably not last for two years.

Now the last two defects listed in our category, local generator interference and trunk line noises, are probably the most serious of any troubles met with in country towns and these will be dealt with in next week's issue of this paper, and should prove of great value to those who are up against this problem.

The KGO4



After exhaustive experiment and testing with many circuits, Messrs. W. Harry Wiles have perfected a broadcast receiver which is known as the KGO-4. This receiver was submitted by the manufacturers to Wireless Weekly for test. It was taken to Bathurst for trial and results on 3LO, 4QG, 2BL and 5CL were excellent.

The set is a combination of tuned impedance and the neutrodyne and on test in the suburbs of Sydney, was found to be extremely selective and capable of delivering wonderful volume. Tuning on all stations was extremely sharp—in fact, 2BL was separated from 3LO by only one and a half degrees on the condenser dial.

It should be mentioned that this set is not suitable for the wavelengths of 2FC or 6WF, but may be thoroughly recommended for use on all the other Australian and New Zealand broadcasting stations. KGO has been received on this set, and while extensive tests on American stations have not been carried out, it is quite probable that the range of the receiver could be materially increased. The layout of the parts in the set are fully illustrated in the photograph and in the diagram.

Instructions for Assembling and Building KGO4.

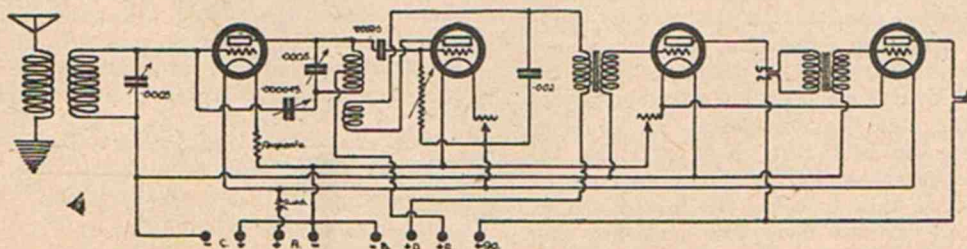
The materials required for this set may be purchased from any advertiser in this issue.

- 1 panel, 18 x 7 x 1/8 bakelite.
- 1 cabinet and baseboard.
- 2 .0005 low loss condensers.

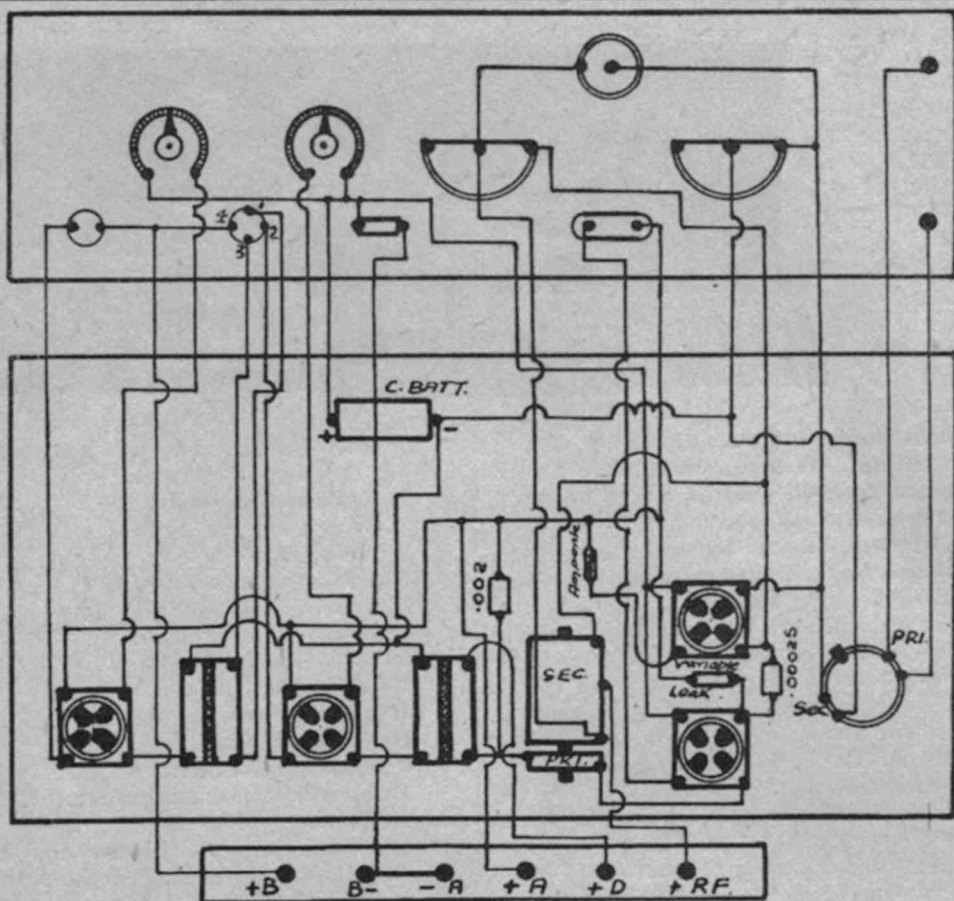
- 1 .000045 midget condenser and dial.
- 1lb. 20 gauge d.c.c. wire.
- 1 .00025 mica condenser.
- 1 amperite.
- 1 Bradleystat.
- 1 rheostat to suit valve.
- 1 variable condenser.
- 4 sockets to suit valves.
- 1 double circuit jack.
- 1 single circuit jack.
- 1 battery switch.
- 14 N.P. terminals.
- 2 audio transformers.
- Panel wire, solder and screws.

Tuning Coils.

Lay some strips of adhesive tape, each about 6in., lengthways on an ordinary ale bottle; these are to form a non-slipping surface on which to wind the wire and are discarded after the coils are wound. Passing the end of the wire under one of the strips, wind the coil to the correct number of turns, passing the finishing ends in the same way as the first. Paint the coils with Colodian and allow to dry, break the bottle and remove the insulating tape and the coils will be ready for mounting on supporting slip. These supporting slips are made from scrap bakelite 5/8in. wide and about 3/4 of a length over each end of coil. Drill a hole in the supporting slip each end between each pair of coils. Place the coils between these two strips



T Circuit



The Back Panel View.

of bakelite and bolt together so that both coils are held firmly in position.

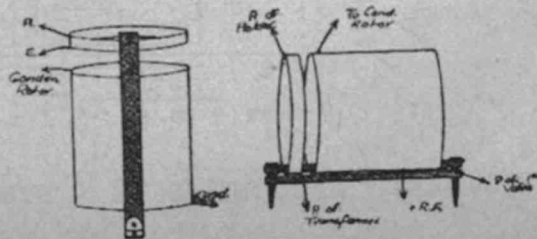
As the primary coils are fitted to the baseboard in a vertical position, make a small brass angle bracket, fit to the bottom end of supporting strip and screw to baseboard. The tuned impedance coil is mounted horizontally with the end of coil perpendicular to the panel.

The rear view photograph of set will illustrate the general lay-out of the component parts. Special note should be made of the connections of respective coils as described in the drawing herewith. The aerial and reaction coil should not be bolted too tightly between the bakelite strips when the coil is first mounted, but adjust after the set is working and the adjustment of coupling made to give the best results, after which the coupling need never be altered. Be sure that the plate of detector tube is connected to the end of the tickler coil furthest from the impedance coil. If the coil coupling between the tickler and impedance coils is too close it will be very difficult, in fact, almost impossible to neutralise the set. The coupling should be as close as possible without the

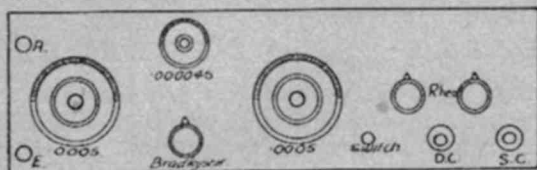
set oscillating at a wavelength, after it has been neutralised by adjusting the reaction condenser. Do not mount coils directly to baseboard but keep them at least 1/4in. away.

Tuning.

After connecting the A, B and C batteries and switching on the valves, turn the reaction condenser to either side so as to allow the set to oscillate when picking up a distant station. When the carrier wave is located adjust the reaction condenser until the valves are neutralised, then readjust the tuning condensers. You will notice that the detector rheostat at first is very critical, in fact a Bradleystat is almost essential. Once you become accustomed to the set you can tune in a dia-



tant station even on the loud speaker without any trouble. Note the position of the different stations on the dials and the particular stations will always come in on those points. After a little



practice, all Australian stations which are within the wave-band of this set can be tuned in with loud speaker strength.

The set is simple to construct and excellent for long distance reception.

ABOUT DRILLING GLASS.

(To the Editor.)

Sir,—I notice a letter in the last issue of your journal explaining a method of drilling glass using copper tube and emery powder. I have drilled holes in this manner, but now use a much simpler and quicker method.

The materials required are a box 18in. or so high, a coach bolt, an ordinary carpenter's brace, twist drill, centre punch, square file and turpentine.

Mark out your panel with a piece of soap, using it like a pencil; centre punch where holes are required; drill a hole in the bottom of your box and knock in the round-headed coach bolt, leaving the round head projecting; lay the panel on the box with the centre punch mark where you intend to drill right over the centre of the bolt head. Put your drill in the brace and get to work, using turpentine freely on the drill. Get right over your work and put plenty of pressure on the drill. Don't be afraid of the glass, it won't break if you keep the bolt head under the drill point and use plenty of turps. When you get a start let the brace wobble a bit—it cuts better this way—but keep your weight on it.

The glass comes away as a white sludge and you should be half-way through a 3/8in. panel in a minute or even less. Turn your panel over, centre punch and drill till you meet the other hole. Have your square file ground to a tapering square point and use as a reamer in the brace; you can ream out the holes to any size required. The twist drill will do two or three holes before getting dull.

I have drilled six 3/8in. holes in a panel 3/8in. thick in ten minutes. For aerial insulators cut strips from a broken car windshield about two inches wide and, say, a foot long; drill holes about 1 inch from each end. They are PB and will stand quite a strain.—Yours truly,

R. J. TURNER (A2BT).

Motor Garage, Verner Street, Goulburn.



A REPORT from KOSCIUSKO

To Messrs David Jones & Ltd.
George Street,
SYDNEY.

Dear Sirs,

I would like to congratulate you on the success of the "Wireless Set" supplied by you to the Hotel Kosciusko.

Kosciusko, as is well known, is a difficult location for good wireless results. From what I have seen of your set however, the reception, the entire absence of foreign noise and the volume, are far beyond any expectations I may have had. The following Stations were brought in—5CL; 2FC; 3LO and 2BL. 4QC was also brought in by Mr. Cooke, but as I was not at Kosciusko at the time I cannot give my personal opinion about the reception.

Any results other than those stated will be communicated to you if thought of sufficient interest.

P. Speet, P.M.

Manager,
Hotel Kosciusko.

DAVID JONES'

Modernise Your Radio Set with a MENOMINEE

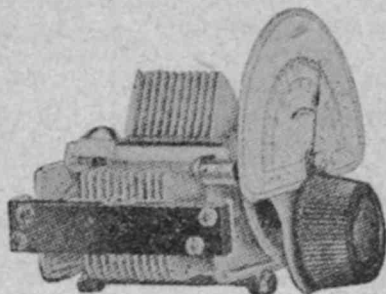
LOW LOSS VARIABLE CONDENSERS

Are a popular American Low Loss condenser. In the manufacture of these condensers every safeguard is provided to prevent current losses or leakage. A MENOMINEE Low Loss condenser will increase the range of practically any set by many miles and as there is no body capacity the station will not detune after a setting is made.

Perfect Electrical Connections — Silent Movements.

SPECIAL FEATURES.

Soldered Rotor Assembly.
Double Skidded Stator Assembly. Clock Spring Pigtail Connection.



SPECIAL FEATURES.

Adjustable Cone Bearing. Adjustable Stator Assembly. Efficiency Guaranteed.

Illustration of Menominee Low Loss Condenser.

.001 mfd. 43 plate with dial	27 6
.0005 mfd. 23 plate with dial	25 0
.0003 mfd. 17 plate with dial	22 6

REDUCTION IN PRICES OF STANDARD MAKE VARIABLE CONDENSERS.

Ormonde (English) with aluminium end plates, single hole mounting.

.001 mfd. without dial	7/- each	.0005 mfd. without dial	7/- each
.0003 mfd. without dial	5/6 each	.0002 mfd. without dial	4/6 each
.00001 mfd. without dial	4/3 each	.00005 mfd. without dial	4/3 each

"WARNER."

With Bakelite End Plate

.001 mfd. 43 plate without dial	10/-
.0003 mfd. 17 plate without dial	6/-
.00025 mfd. 13 plate without dial	6/-

K. & C.

.001 mfd. 43 plate with Vernier & dial	20/-
.001 mfd. 43 plate Plain without dial	12/-

NUTMEG.

With Bakelite End Plate

.001 mfd. 43 plate without dial	15/-
.0003 mfd. 17 plate without dial	10/-
.00025 mfd. 11 plate without dial	9/6

RED SEAL.

.001 mfd. Mercury condenser with dial	15/-
---------------------------------------	------

OUR MAIL ORDER DEPARTMENT, 60 Goulburn Street, is under supervision of a Mail Order ing, and all details necessary for an efficient Mail Order Service. We despatch within 24 hours.

Open Friday Nights until 9.30 p.m. Complete Parts for all circuits. Advice Gratis. Your own Set rewired.

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BIG CAPACITY ACCUMULATORS

NEW STOCKS TO HAND OF

6 volt, 120 ampere hour heavy duty accumulator in vulcanite containers and encased in acid proof box with leather handle. Charged ready for use, 95/-
 Accumulators Charged and Repaired by Experts.

NEW GOODS.

Loop Aerial Wire—American Loop Aerial wire manufactured especially for Loop aeri-
 als, contains 20 strands specially prepared copper wire, each strand being separately
 insulated and the whole covered with several layers cotton covering, maximum ef-
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Genuine Bakelite Dials 180° 3in. 2/-; 4in. 3 6
 Pocket Type Voltmeters 0-50 volts, each 7 6
 Amperites. The Automatic filament control, each 7 6

PROTECT YOUR SET FROM THE SUMMER STORMS

Now that the Summer storms are developing it is es-
 sential that your set should be protected from light-
 ning and other atmosphere disturbance; why wait
 until one of your valves, transformers, or headphones
 are burnt out? Adopt the Safety First motto and
 instal the Automatic Earthing Plug. The Automatic
 Earthing Plug will protect your set from the summer
 storms. The Automatic Device is encased in mould-
 ed bakelite, is neat and attractive in appearance, and
 can be fixed anywhere inside your home. Further-
 more, when the set is not in use you simply remove
 the plug which connects the wires leading from the
 set and no unsightly wires are exposed. In addition
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Western Electric Arresters, with renewable
 Projecting block, each 6 6
 Safety Junior Arrester, enclosed in glazed
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AUTOMATIC EARTHING PLUG



Price, 7/- each.

a Mail Order Expert, which ensures prompt despatch, careful attention to pack-
 within 24 hours. May we have your order?

own Set rewired by Experts. Satisfaction guaranteed.

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ess & Electrical Stores

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SEASONINGS WITH A TOUCH OF MIXED MUSTARD.

To meet the demand for dramatic sketches, which is a feature that appeals to listeners-in particularly, 2BL have arranged for new comedy sketch artists to broadcast, in the persons of Miss K. Brown and Mr. C. Loudon. Their initial number will be entitled "Packing Up," and further sketches will be presented at a later date.

A distinguished singer whose efforts always please the listening-in public is Mrs. Hugh J. Ward, who in her way is quite as widely known as her famous husband, so distinguished in theatrical and musical comedy circles. Mrs. Ward possesses a delightful soprano voice, and there is about it just sufficient of the old world touch to make it distinctly appealing to people who have never been completely won over to the modern school of music.

Dorne and Montford, melody duo, have been delighting listeners-in with their performances from the studio of 2BL. Possessing delightfully fresh and well-trained voices, the duo present solo and duet numbers which cover the whole field of music from classical arias in grand opera to the most up-to-date modern melodies. Mr. Montford, in particular, is well known in England and the Continent, where he has appeared on the operatic stage, and also sung in concerts. Miss Dorne's fine technique enables her to cover a range of music eminently suitable for broadcasting.

A very delightful artiste who has been introduced to the larger wireless public through 2BL is Miss Leonore Gotsch. This distinguished lady is Australian born, but spent nearly seven years near Leipzig, in Germany, and emerged from this tuition with a magnificent repertoire of not less than 700 concert numbers. Specialising in German Leieder, Miss Gotsch may be classed as the Elena Gerhardt of Australia. In operatic work Miss Gotsch has specialised perhaps in the earlier work of Mozart, but possesses a fine repertoire of Wagnerian and other arias. Miss Gotsch's exquisitely trained voice dis-

plays a middle register of beautifully smooth quality, with upper and lower registers to correspond. Many of the listeners-in have not hesitated, after hearing this talented lady, in expressing the opinion that she is fully equal to any of the imported artists who have been adorning the concert stage in Australia.

Station 2BL has introduced a novelty which has been well received, in the form of a two minutes' introductory chat in regard to the musical items being rendered. Thus it has been possible to outline briefly the history of a song or to suggest the outstanding merit of an instrumental number in such a way as to interest the listeners-in by pointing out some feature that might otherwise have passed by unnoticed. So popular has this innovation become that it will be in all probability adopted as one of the permanent features of the programme.

Uncle George continues to delight many thousands of listeners-in with bedtime stories and from the letters that are constantly being received it would appear that the number of adults is at least equal to the number of children who listen to this feature of broadcasting. A recent innovation by Uncle George is a special children's Sunday night session, featuring Bible stories and hymns. Already it would appear that this is rivalling in popularity the fairy stories and wild adventures that make up the week-night sessions. Uncle George appears to be blessed with a versatility that never allows the faintest suspicion of dullness to creep in to the children's hour. Rather is there hilarious quality that emerges night after night to the infinite satisfaction of his vast family of nephews and nieces.

Telephone B 5925

CHARLES D. MACLURCAN
Consulting Radio Engineer

Pratten Building,
26 Jamieson Street,
SYDNEY

CALIBRATIONS

BURGESS—"POWER, HARMON Y, ENDURANCE"—BATTERIES

PHILIPS VALVES

As the result of years of painstaking effort in the field of scientific research, backed by a factory organisation world famous for the magnificent quality and reliability of its products, PHILIPS LAMP WORKS are now placing on the market the following remarkable series of Radio Valves:

A. 110—"THE ONE-CELL VALVE." Detector and Amplifier.

Filament Consumption, 1.0/1.3 volts; 0.06 amp. Plate Voltage, 20/100

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

Standard American or English Cap, Price 17/6.

A.306—(IMPROVED 199 TYPE).

Detector and Power Amplifier.

Filament Consumption, 3 volts; 0.06 amp. Plate Voltage, 20/100.

A.306 has similar characteristics to the well-known 199 type, and gives wonderful volume and range, 2 or 3 Dry Cells, in series, only being necessary to light the filament. Ideal for portable work.

Standard American, English or 199 Cap, Price 17/6.

B. 406—"THE NEW VALVE."

Detector and Power Amplifier.

Filament Consumption, 3.4/4.0 volts; 0.1 amp. Plate Voltage 20/120

Truly the most wonderful valve yet produced; gives all the volume and range of the 201.A type, with the remarkably low filament consumption of only 0.1 amp. (100 milliamps). Can be used with a 4 volt accumulator or 3 Dry Cells, in series.

Stocks of B.406 are arriving shortly. Place your order now and make certain of securing your supplies.

Standard American or English Caps, Price 17/6.

C. 507—(IMPROVED 201A TYPE).

Detector and Power Amplifier.

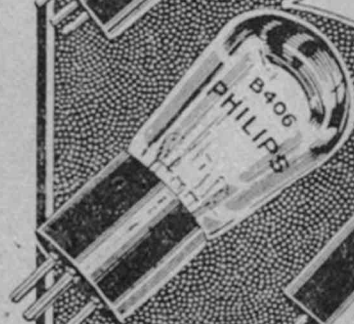
Filament Consumption, 5 volts; 0.25 amp. Plate Voltage, 20/120.

Valves of the 201.A type stand high in the public's favour—their characteristics are so well known as to need no comment here. The name of Philips stands behind the C.507 valve and denotes that quality which commends them to discriminating Radio enthusiasts throughout the world.

Standard American or English Caps, Price 17/6.

Philips Valves

Obtainable from all
RADIO DEALERS.



RADIO FANS!

Our wireless department is fast becoming the premier store for all radio requirements. The fact that we buy in such large quantities enables us to sell every article at the lowest possible price. The component parts listed below will be of interest to "Fans" and "Amateur Transmitters."

Cunningham Bakelite Base, C301 A Valves, 5 volts (.25)	15/-	each
Winchester, Large Capacity B Batteries, guaranteed 45 volts	26/-	..
22½ volts	13/-	..
3/16 and 1/8 Sheet Bakelite	6/-	lb.
Kenotron Rectifier Valves, UV 216, 5 watts	47/6	each
Phillip's Type G Transmitting Valves, 20 watts	75/-	..
Faradon Condensers, 1 mfd—1750 volts, D.C., Model UC490	18/6	..
Magnetic Modulator, R.C.A., Model 5-1, 5 amps.	£3/4/-	..
Radio Frequency Choke Calls, UL1655	26/6	..
Oscillation Transformers, UL1008	£4/5/6	..
Microphone Transformers, UP414	50/6	..
Red Seal Head Sets, for DX work and comfort	40/-	pair

Write or Call for our Specially Illustrated Catalogue

:: Terms arranged if required on Radio Sets ::

We invite you when next passing to call in and inspect this Department and talk over your Radio troubles with our chief wireless man. He may perhaps be able to help you.

Mick Simmons Ltd

THE WORLD'S GREATEST SPORTS STORE
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Q.S.L.

The meaning of the three letters QSL is: "Please give me a receipt" — or, in other words—"Send me an acknowledgement."

There isn't a transmitter on the air now who is not glad to get a report on his signals, whether they are phone or C.W.

You can put everything you want to say on a Publicity Press QSL card. It takes only a minute to fill in and conveys all the information the transmitter wants.

Over the last few months we have printed thousands of these cards for both transmitters and receivers, among them 2UW, 2CX, 2BF, 2LM, 2WW, 4CK, etc.

There is a QSL card for every purpose and they may be had either from stock or to suit individual tastes.

Write, phone or call.

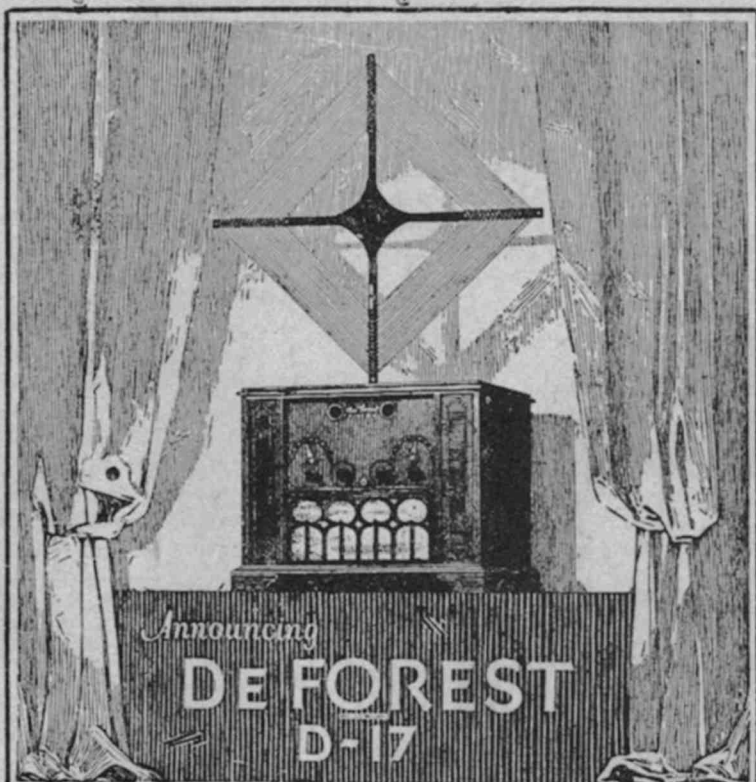
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THE LATEST IN RADIO

De Forest leads the field in 1925 with its new D-17. This new instrument has the great features that have made De Forest Radiophones famous alike with experts and the unskilled—plus refinements that simplify its operation, give increased selectivity, sensitivity and distance range.

Note these points:

1. A clear, natural tone common only to De Forest instruments—a tone so rich and pure that the living performer seems to be present.
2. No aerial—no ground wire.
3. Simplicity of operation—detector tube in place of crystal gives immediate results, eliminates all detector adjustments.
4. Disturbing squeals have been eliminated.
5. The D-17 can easily be moved from room to room on a tea waggon or carried by hand.
6. A handsome instrument that is a handsome piece of furniture.
7. Lee De Forest, the greatest name in radio, made present-day radio possible.

The D-17 has built-in loud speaker, valves, loop, and "A" and "B" batteries.

Write us direct for further information and name of nearest De Forest dealer.

PRICE OF D-17—COMPLETE, £75
with everything complete

International Radio Co. Ltd.

200 CASTLEREAGH STREET, SYDNEY.
91-93 Courtenay Place, Wellington, N.Z.

RADIOPHONE IS A DE FOREST INVENTION

(AGENTS WANTED EVERYWHERE.)

MR. E. C. ALLSOP.

Pictorially displayed herewith for the benefit of many who know Mr. Allsop by repute without being familiar with the man himself is Mr. Raymond Cotam Allsop, the recently appointed Radio Engineer-in-Chief to Broadcasters (Sydney) Limited.

Mr. Allsop has had a distinguished career in connection with the development of wireless in Australia. He was educated at the Sydney Grammar School, and during his school days made the acquaintance of Father Shaw, well known through having established the Maritime Wireless Company at Randwick. This is the company which became



known later as the Shaw Wireless Company with the call sign of XPO. From his school days Mr. Allsop was an experimenter in wireless, and his association with Father Shaw was sufficient to definitely direct his mind in the direction of utilising wireless as a career.

After leaving school and spending some time in the Shaw Workshops, Mr. Allsop decided to become a wireless operator. Having obtained his Australian and New Zealand certificates, he served as ship's wireless officer on a number of vessels, amongst them being Levuka, Riverina, Wyandra, and Cooma. In 1916 he was appointed senior operator to the troop-

ship "Argyleshire," and early in the following year passed through the experience of being torpedoed in the English Channel.

After returning to Australia and spending a period in the laboratory at the Randwick Wireless Works, which have been taken over by the Naval Authorities, he was appointed senior operator on the troopship Indarra and served on that vessel until after the signing of the Armistice. After a further period at the Randwick Naval Wireless Station, Mr. Allsop served for a period as Radio Engineer to New Systems Telephones Pty. Ltd., and after severing his connection therewith received his present appointment of Engineer-in-Chief to 2BL.

It is under Mr. Allsop's direction that the station is now run, and the transfer of the station to Coogee has also been carried through under his direction.

Keenly alive to the possibilities of future development in regard to wireless, Mr. Allsop is engaged in research work, which will probably have the effect of materially benefiting transmission from the present station.

The excellence of the De Forest receiver is amply illustrated by the following letter.

June 26, 1925.

International Radio Co. Ltd.,

Dear Mr. Blackwood,

With reference to the four valve reflex De Forest set purchased from you about a year ago. We have been greatly pleased with the results obtained.

We have had all the following stations on the loud speaker:

American: KGO (Oakland), KFI and KNX (Los Angeles), KOA (Denver), WSAI (Cincinnati).

Australian: 2BL (Sydney), 3LO and 3AR (Melbourne), 5CL and 5DN (Adelaide) and 7ZL (Hobart).

New Zealand: 4YA and 4AR (Dunedin), 2AQ (Taihape), 2YM (Wellington), 1YA and 1YB (Auckland).

All the American stations have been heard at good strength on the loud speaker, in fact, sometimes KGO, KNX, and KOA roar out.

Of the Australian stations, 2BL is great; it comes in with great volume.

4YA (Dunedin) is the loudest of all the stations. Speaking can be understood 100 yards from the speaker.

We are more than satisfied with the set. It is wonderful to sit in a room here and hear distinctly what a man is saying in Cincinnati, 8,400 miles away or in Denver, 7,300 miles away.

Very truly yours,

ALEX CLARKE, Oamaru, N.Z.

Before you
Expend
Money on
Radio
Equipment
Consult
Anthony
Horderns'
Wireless
Experts.

Your inspection of the big display of everything that is new in the world of Wireless, is invited.

(Wireless -- Second Floor)

Anthony Hordern & Sons
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Brickfield Hill, Sydney

Phone City 94

Box 2712 C.P.O.



150 American stations logged by Tasmanian amateur using Weco valves

EXTRACT from a letter dated April 21, 1925, sent to Western Electric Coy. Ltd., London, by Mr. W. A. Smith, 37 Cascade Road, Hobart.

"I am writing to you for the purpose of bringing before your notice some very interesting experiences I have had with a couple of your Weco valves (white spots).

I purchased these two little valves about six months ago to build a portable low loss receiver. This consisted of detector and one-step audio frequency amplification, and I received all Australian and New Zealand experimenters working below 100 metres at loud speaker strength on a small loud speaker. Also, with phones, about 150 American Amateur Stations have been logged (between 70 and 90 metres).

American Broadcasting Station K.D.K.A. 63 metres quite a fair strength on small speaker. This set has been worked under all conditions. On the top of Mt. Wellington, 1466 ft. above sea level, these valves gave us some very fine results, Australian and American stations being received again, three pairs of phones being used. While on the mountain a heavy fog or mist came over and not having any cover for ourselves or the set, we decided to continue experiments and note the effect moisture had on signal strength, the set, etc. Well, signal strength dropped considerably, but the valves oscillated freely while the induction coils were quite wet. I think, sir, this is quite a severe test and speaks highly for the Weco.

Another test is that of robustness and after trying hard I am satisfied that these little tubes are very nigh unbreakable. On one occasion I placed them in my coat pocket and a little later forgetting they were in my coat took the coat out and shook it well. Remembering valves were in the pocket I at once tested them and found them to be quite undamaged.

On another occasion a friend of mine was helping me test some transmitting circuits and chokes and in rushing along the test bench to reach the ammeter knocked the set containing these doomed valves on to the floor, a drop of 3 ft. 6 ins. Well a few remarks passed between us and my friend offered to stand the expense. 'Anyway,' I said 'we'll test them in case one is alright.' 'Not worth your while,' replied my friend. However, I tested them and found them both to be O.K. to my great surprise, and I think this wonderful for valves and it speaks well for the makers."



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R261



A New Radio Frequency Transformer

A new product by Amalgamated Wireless is always of interest.

The latest is a Super-Radio Frequency Transformer, the principle feature of which is that it gives constant amplification over a wide range of wavelengths without adjustment. No switch or other mechanical device is utilised in this radio frequency transformer.

On most other types of radio frequency transformers the wavelength changing is carried out by short-circuiting or isolating those parts of the windings not in use. This method, besides being cumbersome, is inefficient, because of the equivalent resistance losses of the parts not in use.

To "tune in" to interstate high power broadcasting stations satisfactorily, it is essential that a stage of radio frequency be used, and the receiver must be sufficiently selective to eliminate local interference.

In the past the two condenser control receiver having a direct coupled aerial and tuned plate has been very popular. This type of receiver is not sufficiently selective for interstate reception, but by use of the A.W.A. Super-Radio Frequency Transformer for the radio frequency coupling the aerial can be inductively coupled, giving the desired selectivity without decrease in sensitivity or increase in the number of controls.

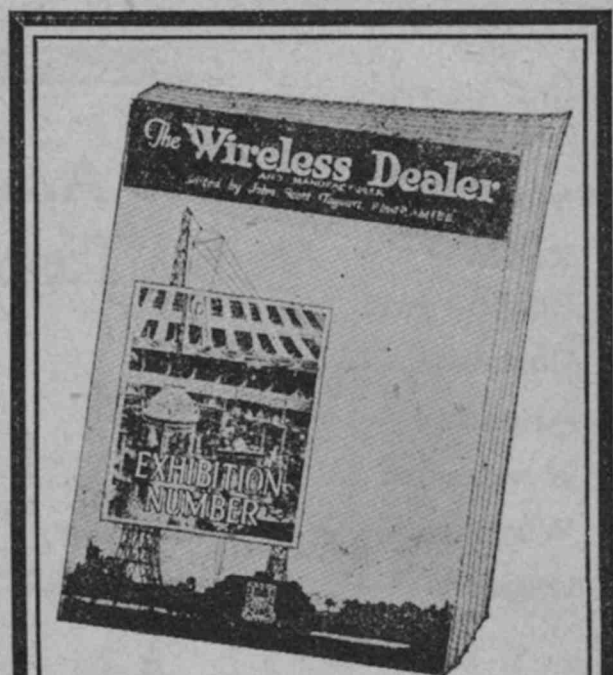
In the manufacture of the transformers each separate element is adjusted on a radio frequency bridge to eliminate any possible errors due to variations in the windings, unevenness in winding tensions, varying insulation thickness, etc.

The elements have been made moisture proof by sealing in an insulating compound having a high melting point.

Efficient electrostatic and magnetic screening has been provided for in the container, and the aim has been to reach perfection in the mechanical and electrical construction.

There can be little doubt that there will be a large demand for these transformers, for the quality and workmanship maintain the high standard of Amalgamated Wireless products, while at the price of 30/- the value is undoubted.

In the sale of these transformers Amalgamated Wireless (A/sia) Ltd. undertake to make good any defect which may arise within ninety days of the date of invoice in respect to either material or workmanship, providing the apparatus is not tampered with and is returned carriage paid and duly advised.



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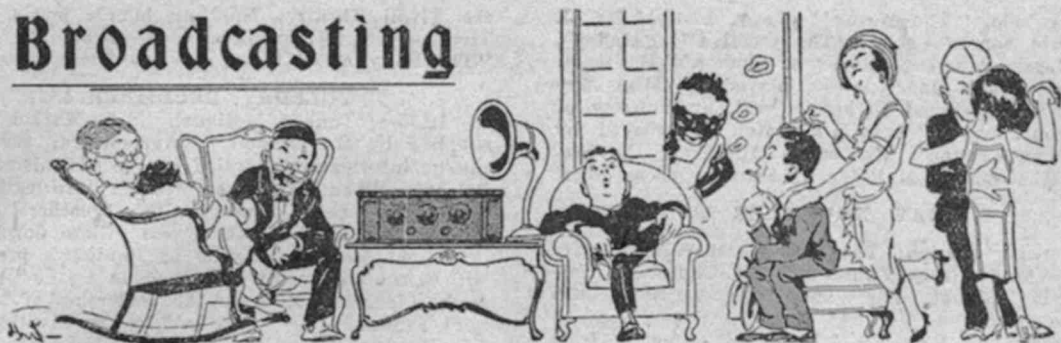
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FRIDAY, NOVEMBER 27.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Afternoon Session: 2.55—"Tune-in" Signal. 3—By courtesy of the Directors of the Haymarket Theatres Ltd., an hour's programme of music played by the Tivoli Operatic Orchestra of 20 performers, under the baton of Mr. C. Groves, will be relayed from the Tivoli Theatre and broadcast by Station 4QG. 4—Close down.

The Children's Hour: A Children's Bedtime Story Session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while transmission is being effected under temporary conditions, it is held three times weekly. 6.25—"Tune-in" signal. 6.30—The Children's Hour. Nursery rhymes and music. Bedtime stories by "The Sandman." 7.15—Close down.

Night Session: Hastings and Adair. Portion of to-night's programme will be provided by Mr. Will Hastings and Miss Peggy Adair, the English Musical Comedy Duo. 8—"Tune-in" to the Tivoli Theatre. 8.5—From the Studio: Character soubrette, (a) "La, La, La," (b) "What do they mean by Love," Miss Peggy Adair; vocal duet, "The moon hath raised her lamp" (Benedict), Messrs. J. B. Cloirec and G. Williamson; English comedian, (a) "Beauty," (b) "Rhubub," Mr. Will Hastings; contralto solo, "Coming Home" (Willeby), Miss Mae King; musical comedy act, Mr. Will Hastings and Miss Peggy Adair in a novel act of melody patter, music, and mirth; instrumental number, dance, "Shopping" (Martin), the Studio Trio. 8.55—Announcements. 9—Vocal duet, "A Perfect Day" (Jacobs Bond), Miss Mae King and Miss Nance King; ten minutes of humour by Mr. W. F. Kenny; baritone solos, (a) "The Minstrel Boy" (Moore), (b) "The Adjutant," Mr. J. B. Cloirec; lecturette, "Know Your Soil," Mr. Cuthbert Potts, B.A., editor "The Australian Fertiliser"; tenor solos, (a)

"Love's Request" (Reichardt), (b) "As long as the world rolls on," Mr. Geo. Williamson; instrumental number, waltz, "Sleeping Water" (Bord), the Studio Trio; soprano solos, (a) "In the Purple Glow" (Clarke), (b) "I wonder if Love is a Dream" (Foster), Miss Nance King; aeolian vocalion selections, orchestral numbers, (a) "The Parade of the Tin Soldiers" (Jessal), (b) "Sea Songs" (Williams); contralto solo, "Kiss Me Good-bye" (Thompson), Miss Mae King. 9.55—"The Daily Mail" news service. Close down.

SATURDAY, NOVEMBER 28.

No midday transmission.

Afternoon Session: 2.30—From the Brisbane Domain: Returned Sailors and Soldiers' Imperial League, Grand Armistice Carnival. Grand Scottish programme. Pipe Band contest. Armistice Championship, open to all Pipe Bands in Queensland. 1st prize, Dewar's sterling silver cup, value £50, and £25 cash; the Dewar Cup to be held under the control of the Caledonian Society and Burns Club for future contests; any band winning three times in succession or four times in all to be owners of the cup. 2nd prize, £10 cash. Close down.

The Children's Hour: A Children's Bedtime Story Session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while transmission is being effected under temporary conditions, it is held three times weekly. 6.25—"Tune-in" Signal. 6.30—The Children's Hour. Nursery rhymes and music. Bedtime stories by "The Sandman." 7.15—Close down.

Night Session: 8—"Tune-in" to the Tivoli Theatre. 8.5—From the Studio: Soprano solo, "Ave Maria" (from "Cavalleria Rusticana"), Mrs. Leslie Morris; elocutionary number, "A Bunch of Roses" (Patterson), Miss Jean Trundle; tenor solo, "I know of Two Bright Eyes" (Clutsam), Mr. E. Ungerer; pianoforte solo, "Valse Parisienne" (Lee S. Roberts), Miss Naomi Archdall; baritone solo, "The Devout Lover" (M. V. White), Mr. J. Morgan; elocutionary number, "An Old Romance" (Anon.), Miss Jean Trundle; soprano solo, "Serenade" (Gounod), Miss Beryl Huntingdon; aeolian vocalion selections, band numbers, (a) "The Contemptibles" (Stanley), (b) "The Mad Major" (Alford); tenor solo, "I hear you calling me" (Marshall), Mr. E. Ungerer; pianoforte solo, "March Hongroise" (Kowalski), Miss Naomi Archdall; soprano solo, "The Glory of My Garden" (Boanas), Miss Beryl Huntingdon;

BURGESS—"THEY'RE ON THE SPEEJACK'S"—BATTERIES

baritone solo, "The Wreck" (J. A. Little), Mr. J. Morgan); soprano solo, "The Carnival" (Molloy), Mrs. Leslie Morris. 9—From Lennon's Ballroom: Half an hour's dance music, played by Miss May Dobbyn's Vice-Regal Orchestra, will, by courtesy of the proprietors of Lennon's Hotel, be relayed by 4QG from Lennon's Ballroom. 10—From the Studio: "The Sunday Mail" news service. Close down.

SUNDAY, NOVEMBER 29.

Morning Session: The complete morning service from Wharf Street Congregational Church. 10—"Tune-in" Signal. 11—Wharf Street service. 12.15—Close down.

Afternoon Session: 3.15—Band concert from Brisbane Botanical Gardens.

Night Session: 7.15—Evening service from Albert Street Methodist Church. 8.30—Band concert from Wickham Park.

MONDAY, NOVEMBER 30.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Afternoon Session: 2.55—"Tune-in" Signal. 3—By courtesy of the Directors of Haymarket Theatres Ltd., an hour's programme of music played by the Tivoli Operatic Orchestra of 20 performers, under the baton of Mr. C. Groves, will be relayed from the Tivoli Theatre. 4—Close down.

The Children's Hour: A Special Children's Bedtime Story is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while transmission is being effected under temporary conditions, it will be held three times weekly. 6.25—"Tune-in" Signal. The Children's Hour. Nursery rhymes and music. Bedtime stories by "The Sandman." 7.15—Close down.

Night Session: 8—"Tune-in" to the Tivoli Theatre. From the Studio: Vocal duet, "Blue Danube Waltz" (Strauss), Mrs. Robt. Bell and Miss Ruth Portrate; cricket talk, a description of to-day's play in the Queensland v. New South Wales match, Mr. Roger Hartigan (Q.C.A.); elocutionary number, "The Brook Song" (Riley), Miss Feo Todd; contralto solo, "Abide With Me" (Liddle), Miss Audrey Hiff; lecturette, "Life Saving," the last of a series of four by Mr. J. C. Deeney (hon. lecturer, Queensland Head Centre, Royal Life Saving Society); soprano solo, "Love, Here is my Heart" (Silesu), Mrs. Robert Bell; character soubrette, (a) "I thought I'd die," (b) "Paddy Maloney," Miss Peggy Adair; English comedian, (a) "Egyptian Mummy," (b) "Shoe Shops," Mr. Will Hastings; musical comedy act, Mr. Will Hastings and Miss Peggy Adair in a medley of melody, patter, music, and mirth; duo art pianola selection, by request, "Three O'Clock in the Morning" (Robledo); elocutionary number, "If" (Kipling), Miss Feo Todd; contralto solo, "The Little Silver Ring" (Chaminade), Miss Audrey Hiff; ten minutes of music and mirth by Signor Corti; soprano solo, "A Summer Night" (Thomas), Miss Ruth Portrate. 9.30—From

the Tivoli Theatre: Half an hour's music by the Tivoli Operatic Orchestra. 10—From the Studio: "The Daily Mail" news service. Close down.

TUESDAY, DECEMBER 1.

12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Night Session: Portion of to-night's programme will be contributed by the Brisbane Apollo Club (formerly Liedertafel), under the leadership of Mr. Leonard Francis. 8—"Tune-in" to the Tivoli Theatre. 8.5—From the Studio: Choral number, "Excelsior" (Balfe), the Brisbane Apollo Club; a musical novelty by Mr. Golding; choral number, "To Death" (Old English), the Brisbane Apollo Club; baritone solo, "Invictus" (Huhn), Mr. R. Best; choral number, "Mary" (Richardson), the Brisbane Apollo Club; a musical novelty by Mr. Golding; contralto solo, "Husheen" (Needham), Miss Nance Smith; cricket talk, a description of to-day's play in the Queensland v. New South Wales cricket match, Mr. Roger Hartigan (Q.C.A.); tenor solo, selected, Mr. Stephen Best; vocal duet, "Twas a Lover and his Lass," Miss Nance Smith and Mr. Reg Best; instrumental number, "Gypsy Love," selection (Lehar), the Studio Trio; baritone solo, "Friend o' Mine," Mr. Reg Best; cello solo, "Berceuse de Jocelyn" (Goddard), Miss Petropoulos; tenor solo, selected, Mr. Stephen Best; instrumental numbers, (a) "Look for the Silver Lining," (b) "On with the Dance" (from "Sally"—Kern), the Studio Trio; aeolian vocalion selection, by request, "O'Donnell Abou," Mr. Malcolm McEachern; contralto solo, "Softly Awakes My Heart" (Saint Saens), Miss Nance King. 9.30—From the Centennial Hall: Half an hour's jazz music by the Centennial Hall Orchestra. 10—From the Studio: "The Daily Mail" news service. Close down.

WEDNESDAY, DECEMBER 2.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Afternoon Session: 2.55—"Tune-in" Signal. 3—By courtesy of the Directors of Haymarket Theatres Ltd., an hour's programme of music played by the Tivoli Operatic Orchestra of 20 performers, under the baton of Mr. C. Groves, will be relayed from the Tivoli Theatre. 4—Close down.

The Children's Hour: A Special Children's Bedtime Story Session is held each Monday, Wednesday, and Saturday evening. At a later date this session will be made a nightly feature, but in immediate present, while transmission is being effected under temporary conditions, it will be held three times weekly. 6.25—"Tune-in" Signal. The Children's Hour. Nursery rhymes and music. Bedtime stories by "The Sandman." 7.15—Close down.

Night Session: 8—"Tune-in" to the Tivoli Theatre. 8.5—From the Studio: Hawaiian Duo in selected numbers, Messrs. Bleek and Gardiner; lee-

turette, "Chemistry in Everyday Life," by Mr. G. Carson Cooling, M.Sc. (Chief Chemistry Master, Brisbane Grammar School); bass solo, "The Tideless Sea" (Bowen), Mr. J. P. Cornwell; group of banjo numbers by Mr. W. G. McGrath; contralto solo, "Some Other Day" (Del Riego), Miss Clarice Cox; Hawaiian Duo in selected numbers, Messrs. Bleek and Gardiner; tenor solo, "A Spirit Flower" (Tipton), Mr. Will Ashlin; soprano solo, "A Japanese Love Song" (Brahe), Miss Winnie Dunoon; Steck Duo art selection, "The Capitol March" (Prell); tenor solo, "I Love the Moon" (Reubens), Mr. Ernest Barton; instrumental solo, by request, "Ole South," the Studio Trio. 8.55—Announcements. 9—Hawaiian Duo in selected numbers, Messrs. Bleek and Gardiner; contralto solos. (a) "Hindoo Song" (Bemberg), (b) "My Prayer" (Squire), Miss Hilda Cooper; lecturette, "Why Organisation is Necessary for the Fruit Industry," Mr. W. Ranger; bass solo, "Simon the Cellarer," Mr. J. P. Cornwell; tenor solo, "You in a Gondola" (Clarke), Mr. Will Ashlin; group of banjo numbers by Mr. W. G. McGrath; contralto solo, "Lascia ch'io Pianga" (Bandel), Miss Clarice Cox; cello solo, selected, Miss Petropoulos; tenor solo, "Song of the Toreador" (Bizet), Mr. Ernest Bayton; aeolian vocalion selection, orchestral number, descriptive; "The Boy and the Birds" (Hager), played by the U.S.A. 7th Regiment Band; soprano solo, "I Look into Your Garden" (Wood), Miss Winnie Dunoon; instrumental number, "Mountains o' Mourne," the Studio Trio. 9.55—"The Daily Mail" news service. Close down.

THURSDAY, DECEMBER 3.

Midday Session: 12.55—"Tune-in" Signal. 1—Market reports supplied by the Council of Agriculture; Stock Exchange information supplied by the Committee of the Brisbane Stock Exchange; weather information supplied by the Commonwealth Weather Bureau; "Daily Standard" news service. Close down.

Night Session: The Salvation Army Band. Tonight's programme will be provided by the Salvation Army Brisbane Temple Band, under the leadership of Mr. D. Waugh. 8—"Tune-in" to the Tivoli Theatre. March, "Fielding" (Seotney), the Brisbane Temple Band; soprano solo, "Love's Echo" (Ernest Newton), Miss S. Baxter; cornet solo, "The Holy City" (Adams), Deputy Bandmaster Gridley; piano-forte solo, selected, Miss M. Hodges; selection, "Comrades in Arms" (Hawkes), Brisbane Temple Band; duet, selected, Mrs. G. Leatham and Lieut. F. Baxter; hymns, "Hursley," "Norwood," the Brisbane Temple Band; solo, selected, Mrs. G. Leatham; selection, "Adeste Fideles" (Goldsmith), the Brisbane Temple Band; march, "Under Two Flags" (Coles), the Brisbane Temple Band; soprano solo, "A Heart's that's Free" (Alfred Robyn), Miss S. Baxter; pianoforte solo, selected, Miss M. Hodges; duet by Mrs. G. Leatham and Lieut. F. Baxter; quartette, "Il Trovatore" (Verdi), Messrs. Gridley, Harris and Baxter (2); solo, selected, Mrs. G. Leatham; selection, "Eventide" (Hawkes). 10—"The Daily Mail" news service. Close down.

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SUNDAY, NOV. 29.

(Programme arranged by Miss Ada Althouse.)
7 to 7.30—Bedtime Stories. 8—Mr. Neville Clarke, piano solo, "Polka de Concert," by Bartlett. 8.10—Miss Maggie Christensen, song, "Softly Awakes My Heart." 8.20—Miss Adelaide Reed, violin solo, "Souvenir." 8.30—Miss Ada Althouse, soprano, "Waltz Song" from "Tom Jones." 8.40—Mr. Little, flute solo, selected. 8.50—Mr. Neville Clarke, piano solo "The Military Polonaise," by Chopin. 9—Interval. 9.5—Miss Maggie Christensen "An Emblem." 9.15—Miss Adelaide Reed, violin solo, "S'Alute d'Amour." 9.20—Miss Ada Althouse, (a) "Il Bacio," (b) "The Doll Song." 9.30—National Anthem. Miss Maggie Christensen and Mr. Little Booth both from the studio of Mr. Leslie MacCallum. Tuesday, Dec. 1: King's Instrumental String Orchestra.

2BL

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FRIDAY, NOVEMBER 27.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes from the "Sun." 3.15—Music from the Studio. 3.30—G.P.O. Clock and Chimes. A talk on "Modern Psychology" by Mr. J. M. Prentice. 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes. Music from the Studio 4.30—G.P.O. Clock and Chimes. Serial Story entitled "The Black Cat" by Louis Tracey. 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "Sun" News Service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes. Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers. The pupils of Miss Monica Scully will entertain the Kiddies. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: From the Studio: Broadcasters' Minstrel Show; Eva Webb-Jones, soprano. Jazz broadcast from Embassy Palais. Round the World Travelogue by Mr. J. M. Prentice. At 9 p.m. Mr. Morgan will speak on "Motoring."

SATURDAY, NOVEMBER 28.

Afternoon Session: 2—G.P.O. Clock and Chimes. Special Sporting Information supplied by courtesy of "Sun" Newspapers. Music from the Studio. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes. Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers. Uncle George and the Kiddies. 7.30—A talk to the Kiddies by "Branga." 7.45—A talk on "Roads."

Evening Session: Hoyt's Imperial Orchestra, broadcast from Hoyt's Theatre under the direction of Mr. Lionel Hart. Popular Concert from the Studio featuring W. Lewis, baritone; Dorrie Ward,

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soprano; Brass Quartette. Dance music until midnight supplied by the Dungowan Modern Dance Band, Manly, under the direction of Mr. C. J. Little. At 8.30 Mr. W. Fitzpatrick will speak on "Life at Sea."

SUNDAY, NOVEMBER 29.

11 a.m.—Service broadcast from Croydon Park Methodist Church. 3.30—Organ Recital. 7.15—Service broadcast from Chalmer Street Presbyterian Church. 8.30—New South Wales Military Band broadcast from Wirth's Hippodrome Theatre. 9.30—From the Studio: Alfred Cunningham, baritone.

MONDAY, NOVEMBER 30.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes from "The Sun." 3.15—David Jones' Tea Room Trio. 3.30—G.P.O. Clock and Chimes. A talk on "A course in English Literature" by Mr. J. M. Prentice. 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes. David Jones' Tea Room Trio. 4.30—G.P.O. Clock and Chimes. Serial Story entitled "The Black Cat" by Louis Tracey. 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "Sun" News Service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes. Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers. Uncle Jack and the Kiddies. 7.30—Whats On: A guide to the visitors and citizens of Sydney. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: Popular Concert from the Studio. The Ambassadors Salon Quartette under the direction of Mr. Claude McGlynn. During the evening Mr. H. E. Crabb will continue his lectures on "Evolution, the Master-Key"; Mr. C. H. Bertie, City Librarian, will speak on "Stories of Old Sydney."

TUESDAY, DECEMBER 1.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes by courtesy of "Sun" Newspapers. 3.15—Music from the Studio. 3.30—G.P.O. Clock and Chimes. Special Operatic Session. 4—G.P.O. Clock and Chimes. Music from the Studio. 4.30—G.P.O. Clock and Chimes. Serial Story entitled "The Black Cat" by Louis Tracey. 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—"Sun" News Service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes. Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers. Uncle George and the Kiddies, also Uncle Mac and Brother Hyam. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: Classical Concert from the Studio. At 8.30 Mr. T. Alkin will speak on "Care of the Teeth," and at 9.30 Mr. J. M. Prentice will speak on "Foreign Affairs."

WEDNESDAY, DECEMBER 2.

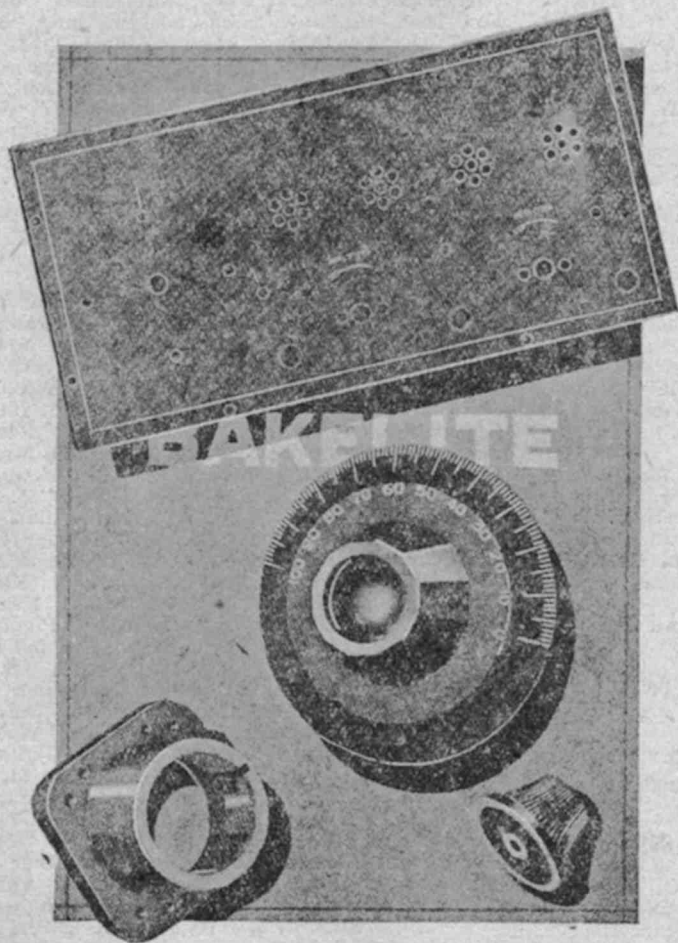
Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes from "The Sun." 3.15—Music from the Studio. 3.30—G.P.O. Clock and Chimes. A talk on "The Musical Outlook" by Mr. J. M. Prentice. 3.45—Music

Programme continued on page 38

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Programme Continued from page 36

from the Studio. 4—G.P.O. Clock and Chimes. Music from the Studio. 4.30—G.P.O. Clock and Chimes. Serial Story entitled "The Black Cat" by Louis Tracey. 4.45—Music from the Studio. 4.55 Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "Sun" News Service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes. Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers. Uncle George and Uncle Jack with the Kiddies. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50 Close down.

Evening Session: Popular Concert from the Studio featuring, Grace Saville, contralto; Brass Quartette: Mary Charlton, pianist; Thomas A. Thompson, elocutionist. At 8.30 Mr. A. T. Keeble, B.Sc., will speak on "Wireless Waves, X Ray and other Waves," and at 9.30 Mr. W. Patterson will speak on "Care and Preservation of Eyesight."

THURSDAY, DECEMBER 3.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes from "The Sun." 3.15—David Jones' Tea Room Trio. 3.30—G.P.O. Clock and Chimes. A talk "Studies in English Poetry" by Mr. J. M. Prentice. 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes. David Jones' Tea Room Trio. 4.30—G.P.O. Clock and Chimes. Serial Story entitled "The Black Cat" by Louis Tracey. 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "Sun" News Service. 5.15—Close down.

Early Evening Session: 6—G.P.O. Clock and Chimes. Pavilion Dinner Orchestra under the direction of Mr. Cec. Morrison. 6.30—Sporting Resume from "Sun" Newspapers. Uncle Jack and the Kiddies. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: Vern Barnett's Recital broadcast from King's Hall.

5CL

CENTRAL BROADCASTERS LTD.

Call Sign: 5CL. — Wavelength: 395 metres.

FRIDAY, NOVEMBER 27.

Morning Session: 11.30—Pianoforte Selections on Hobart M. Cable reproducing piano. 12.15—News and Cable Service. 12.30—The 5CL Studio Orchestra will play: Selection, "No, no, Nanette" (Vincent Youmans); Cornet Solo, "Sincerity" (Clarke); Fox Trot, "Let me Linger"; Suite, "Love Sonnets" (Zamecnik); Violin, solo "Canzonetta" (D'Ambrosio); Waltz, "Mississippi Ripples" (Earl); Dance Lanzweise (Meyer Helmund); Venetian Reverie (Frederick Hall); Finale, Overture: "Caliph of Bagdad." 1.55—S. C. Ward & Co's. Stock Exchange Intelligence and Official Weather Synopsis. 2—Close down.

Afternoon Session: 3—Broadcast from the Studio, pianoforte and Salanola Items. 4—Broadcast from Ellis' "Arcadia Cafe," Orchestral Music. 5—S. C. Ward & Co's. Stock Exchange Intelligence. Station Announcements. Close down.

Evening Session: 6.30—Bedtime Stories for the Children by Uncle Radio and King Electron. 7.30—Market Reports of Messrs. S. C. Ward & Co., A. W. Sandford & Co. Ltd., Farmers' Union, Dalgety & Co. Ltd., Hall & Co., Automobile Assoc. 8—From the Studio a special request programme from the "Listening-in" public by leading Adelaide artists. At 8.20 p.m. Mr. Allan Fitzallen will give a Dramatic Recital. 10.30—Weather Observations and Forecast. Station announcements. National Anthem. Close down.

SATURDAY, NOVEMBER 28.

Morning Session: 10.30—The 5CL Studio Orchestra will play: Overture, "On the Riviera" (Gruenwalde), Cello solo, "Intermezzo" (Tours), Fox Trot, "Lullaby" (Schronberg), Suite "Minirature" (Frank Bridge), Instrumental Trio, "Barcarolle" (Offenbach), Selection, "Lilac Time" (Schubert), Waltz, "Little Pal of Long Ago" (Dixon), Solberg's Song (from Suite) (Greig), Finale, "The Last Waltz" (Strauss). 1.45—S. C. Ward & Co's. Stock Exchange Intelligence and Official Weather Synopsis. Announcements. Close down.

Afternoon Session: 3—Broadcast from the Studio pianoforte and Salanola Items. Principal Sporting Results will be broadcast at intervals. 5—Close down.

Evening Session: 6.30—Bedtime Stories for the Children by Uncle Radio and King Electron. 7.30—Market Reports of Messrs. S. C. Ward & Co., A. W. Sandford & Co., Farmers' Union, Dalgety & Co., Ltd., A. E. Hall & Co., Automobile Assoc. 7.40—Sporting Results. 8—From the Studio: Hawaiian Guitars and Piano, "Hilo March" Miss Reed and Messrs. Reed and Dennis, Song, Selected, Mr. King, Hawaiian Guitars, Hawaiian Smiles, Messrs. Reed and Dennis; Piano Solo, Selected, Miss M. Duell; Hawaiian Guitars and Ukulele, "Hawaiian Hotel" Messrs. Reed, King, and Dennis; Hawaiian Guitars and Piano, "Waikiki Moon" (Miss Reed and Messrs. Reed and King; Song, Selected, Mr. King; Hawaiian Guitar Trio, "Aloha Oe" Messrs. Reed, King, and Dennis, Hawaiian Guitar, Ukulele and Piano "Mellow Moon" Miss Reed and Messrs. Reed and Dennis. Piano Solo, Selected, Miss M. Duell; Hawaiian Guitar Solo, "Kowaihou" Waltz, Mr. King, Hawaiian Guitar and Piano "Doodle Doo Doo" Miss Reed and Mr. Reed; Hawaiian Guitars, "Kawaha" Messrs. Reed and Wennis; Hawaiian Guitar, Ukulele and Piano "Why Did I Kiss that Girl" Miss M. Duell, Messrs. Reed and Dennis; Hawaiian Guitars, "Killer Waltz" Messrs. King and Dennis; Piano Solo, Selected, Mr. King; Hawaiian Guitars, "My Own Iona" Messrs. Reed and Dennis. Weather Observations and Forecast. 10.15—Station Announcements. National Anthem. Close down.

SUNDAY, NOVEMBER 29

Morning Session: 10.55—Broadcast from Park-side Baptist Church. Preacher Rev. Tuck. Divine Service.

Afternoon Session: 2.45—Broadcast from Gawler Methodist Church: Unveiling and Benediction of Gawler Methodist Memorial Pipe Organ. Invocation. Congregation will sing "The Doxology." Unveiling of the Organ by Sir Edward Lucas. Dedication conducted by Rev. G. Ingram Pearson Hymn 807, "For all the Saints who from their Labors rest." Prayer, Lord's Prayer chanted. Scripture reading. Anthem, "Holy Art Thou" (Handel's Largo). Announcements and special

offering for the Organ, during which the Choir will sing "We give Thee back Thine Own" (Sullivan's "In Memoriam"). Hymn 207, "All Hail the Power of Jesus Name." Sermon, Rev. G. Ingram Pearson. Hymn 455, "Onward Christian Soldiers." Benediction.

Evening Session: 6.30—Bedtime Stories for the Children by Uncle Radio and King Electron. 7—Broadcast from Gawler Methodist Church: Choral Service. Preacher, Rev. G. Ingram Pearson. Choirmaster, Mr. Arthur O. Dawkins. Organist, Miss V. Gladys Schulz. Prelude. Evening Supplication, "When Daylight Fades." Hymn 948, "O Lord of Heaven and Earth and Sea." Invocation, "Teach us to Pray." Prayer, Lord's Prayer chanted. Solo, "How Lovely are Thy Dwellings" (Liddle) Mrs. C. Ferguson. Scripture reading. Anthem, "Praise the Lord O Jerusalem" (Mauder). Announcements and special offering for the Organ. Solo, "Abide With Me" (Liddle) Mrs. H. W. Hilton. Prayer. Hymn 405, "I Could not do Without Thee" Sermon. Anthem, "Send out Thy Light" (Gounod). Hymn 642, "Lead Kindly Light." Benediction. Vesper 2, "Lord keep us safe this Night." Station Announcements. National Anthem.

MONDAY, NOVEMBER 30.

Morning Session: 11.30—Pianoforte Selections on Hobart M. Cable reproducing piano. 12.15—News and Cable Service. 12.30—The 5CL Studio Orchestra will play: Selection, "Aida" (Verdi); Cornet Solo, "Adieu" (Schubert); Fox Trot "Mighty Blue" (Whiting); Instrumental Trio, "Humoresque" (D'Vorak); Oriental: Japanola (Weidt); Waltz, "Close Your Eyes" (Vincent); Scarfe Dance (Chaminade); Selection, "The Rebel Maid" (Moncton); Cello Solo, "Matinee Printemps" (Paul Wachs); Finale, "March of the Heroes" (Zamecnik). 1.55 S. C. Ward & Co's. Stock Exchange Intelligence and Official Weather Synopsis. 2—Close down.

Afternoon Session: 3—Broadcast from Studio Pianoforte and Salanola Items. 4—Broadcast from Messrs. Ellis' "Arcadia Cafe" Vocal and Orchestral items under the direction of Mr. Wm. R. Cade. 5—S. C. Ward & Co's. Stock Exchange Intelligence. Station announcements. Close down.

Evening Session: 6.30—Bedtime Stories for the Children by Uncle Radio and King Electron. 7.30—Market Reports of Messrs. S. C. Ward & Co., A. W. Sandford & Co., Farmers' Union, Dalgety & Co. Ltd., Hall & Co., Automobile Assoc. 8—Organ Recital by Mr. Harold Wylde, A.R.C.M., L.R.C.E. (Conservatorium of Music, Adelaide.) Assisted by Gawler Methodist Church Choir. Choirmaster, Mr. Arthur O. Dawkins. Chairman, Samuel Perry, Esq., Introduction of Chairman by Rev. G. Ingram Pearson. Chairman's Remarks. Organ solos: (a) Chant Heroique, Ceasar Fraucet, (b) Petite Fantasia, Callaerto. Anthem, Gloria (Mozart's 12th Mass). Organ Solos, (a) "The Nightingale and the Rose" (Saint-Saens); (b) "The Swan." (c) "Marche Heroique" (Lemare). Solo, "O Divine Redeemer" (Gounod), Mrs J. H. Bennett. Organ Solos, (a) "Prayer and Cradle Song" (Guilmant), (b) "Toccata and Fugue in D Minor" (Bach). Financial Statement. Announcements, and special offering for the Organ. Solo, "Jerusalem" (Gallia) (Gounod), Mrs. D. G. French, A.M.U.A. Organ solos, "Fantasia Rustique" (Wolstenholme), "By the Sundial" (Lehmann), "Toccata in F" (Widor). Solo, "In Memoriam Rhapsody" (Coleridge Taylor)

Mrs. Harvey Kelly. Mr. Arthur Dawkins, the promoter of the Pipe Organ Movement will ask the Chairman, on behalf of the subscribers, to hand the instrument over to the care of the Trustees of the Church. "Hallelujah" Chorus. "Handel's "Messiah"). From the Studio, Station Announcements, Weather Observations and Forecast. National Anthem.

TUESDAY, DECEMBER 1.

Morning Session: 11.30—Pianoforte Selections on Hobart M. Cable reproducing piano. 12.15—News and Cable Service. 12.30—The 5CL Studio Orchestra will play: Selection "La Traviata" (Verdi), Violin Solo: "Lullaby" (Cyril Scott), Fox Trot, "If you knew Susie" (Sylva), Instrumental Trio, "Traum Der Sennerin" (Labitzky), Suite, "Autumn Sketches" (Wilson Smith), Waltz, "Love's Dream" (Bennett), Oriental, "Japonette" (Frederick Hall), Novelette, "Sparklets" (Niles), Finale, Selection: "Sybil" (Jacobi). 1.55—S. C. Ward & Co's. Stock Exchange Intelligence and Official Weather Synopsis. 2—Close down.

Afternoon Session: 3—Broadcast from Studio—Pianoforte and Salanola Items. 4—Broadcast from Messrs. Ellis' Arcadia Cafe, vocal and instrumental items under the direction of Mr. Wm. R. Cade. 5—S. C. Ward & Co's. Stock Exchange Intelligence. Station Announcements. Close down.

Evening Session: 6.30—Bedtime Stories for the Children by Uncle Radio and King Electron. 7.30—Market Reports of Messrs. S. C. Ward & Co., A. W. Sandford & Co., Farmers Union, Dalgety & Co. Ltd., A. E. Hall & Co., Automobile Assoc. 7.40—Physical Culture in relation to good health by Noel H. Hubble. 8—From the Studio an "Old Folks" Night. This programme has been specially arranged for the entertainment of the Old Folks. Instrumental and vocal numbers that were popular many years ago will be given by specially selected artists. 9.10—Topical Radio by E. J. W. Gunner. 9.25—"Old Folks" Programme. 10.30—Weather Observations and Forecast. Station Announcements. National Anthem. Close down.

WEDNESDAY, DECEMBER 2.

Morning Session: 11.30—Pianoforte Selections on Hobart M. Cable reproducing piano. 12.15—News and Cable Service. 12.30—The 5CL Studio Orchestra will play: Selection, "The Maid of the Mountains" (Simson), Cornet solo; "Smilin' Through" (Peun), Instrumental Trio, "Minuette" (Beethoven), Fox Trot, "You left me in the Rain" (Violsky), "La Serina" (Bourke), Violin solo, "Slavonic Phantasy" (Kreisler), Waltz, "Louisiana" (Freed), Reverie, "At Eventide" (Lemont), Finale, "The Arcadians" (Moncton). 1.55—S. C. Ward & Co's. Stock Exchange Intelligence and Official Weather Synopsis. 2—Close down.

Afternoon Session: 3—Broadcast from Studio—pianoforte and Salanola items. 4—Broadcast from Messrs. Ellis' "Arcadia Cafe," vocal and orchestral items under direction of Mr. Wm. R. Cade. 5—S. C. Ward & Co's.. Stock Exchange Intelligence Station Announcements. Close down.

Evening Session: 6.30—Bedtime Stories for the Children by Uncle Radio and King Electron. 7.30—Market Reports of Messrs. S. C. Ward & Co., A. W. Sandford & Co., Farmers' Union, Dalgety & Co.

(Programme Continued on Page 42)

WIRELESS OFFICERS.**List of Marine Staff Changes for Week ending
November 16, 1925.**

W. J. Martin (Sen.) signed off "Niagara" in Sydney.

J. McCallum (2nd) signed off "Niagara" in Sydney.

A. Cannon's services with this company terminated.

G. M. Power's services with this company terminated.

A. A. Grundy (3rd) signed off "Moreton Bay" in Sydney.

M. Prior (3rd) signed on "Moreton Bay" in Sydney.

C. L. J. Coley signed off "Mallina" in Sydney.

H. W. Baker signed on "Mallina" in Sydney.

R. Jordan (Sen.) signed off "Arafura" in Sydney.

E. T. Prentice (Sen.) signed on "Arafura" in Sydney.

E. J. Gough (2nd) signed on "Arafura" in Sydney.

J. W. Jacobs (3rd) signed on "Arafura" in Sydney.

G. H. Hugman signed off "Time" in Sydney.

W. J. Milne signed on "Time" in Sydney.

C. Williamson signed off "Dilga" in Sydney.

C. L. J. Coley signed on "Dilga" in Sydney.

V. P. Nevins (Sen.) signed off "Fordsdale" in Sydney.

J. McCallum (Sen.) signed on "Fordsdale" in Sydney.

SUPER POWER TESTS.

Preliminary analysis of reports on super power tests of WGY, July 26, 29, and 31, when the 50 kilowatt transmitter was used for the first time in the history of radio, show (according to Martin P. Rice, manager of broadcasting for the General Electric Company of America) that there was a definite increase in signal strength, that high power helped to override static, that it is questionable to what extent increased power assists in reducing fading, and that no difficulty was experienced in tuning out WGY for distant stations.

This preliminary analysis, made by the General Electric Company radio engineers, is particularly interesting in view of the new tests which are planned by the Department of Commerce for August 22, 24, and 25. These tests, however, will be made during the regular broadcasting period, and not after mid-

(Continued on Page 45)

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	£	s.	d.
"B" Battery Meters, 2 Readings, 0-10 & 0-100 Volts, at	0	15	0
"A" Battery Meters, 0-10 Volts	0	4	6
American Audio Transformers, at	0	15	0
English Audio Transformers	0	8	6
2 Coil Vernier H.C. Mountings	0	6	6
3 Coil Vernier H.C. Mountings	0	12	6
Coupling Plugs	0	1	8
Panel Plugs	0	1	3
Coil Plugs	0	1	2
Extension Handles	0	1	0
Bus Bar Square, per 2 ft. length	0	0	1½
Aerial Wire, 7/22, Enamelled, per 100 ft.	0	4	6
Aerial Wire, 3/20, Bare, per 100 ft.	0	2	6
Aerial Insulators, per doz.	0	0	9
Lightning Arresters	0	3	6
"B" Batteries, 54 Volts	0	12	6
"A" Batteries, Best Quality	0	2	9
6 & 30 ohm Rheostats, One Hole Fixing	0	4	6
400 ohm Potentiometers, One Hole Fixing	0	5	0
Low Loss Valve Sockets	0	2	9
Low Loss Ball Bearing Condensers, complete with Dial, One Hole Fixing—			
.0005, Plain	0	12	0
.0005, Vernier	0	16	6

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35 Turn 2/8	125 Turn 2/11
50 Turn 2/10	150 Turn 3/2
75 Turn 2/10	175 Turn 3/2
	200 Turn 3/5

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ACCUMULATORS—4 Volt, 40 Amp.	24/6
6 Volt, 40 Amp.	36/-
6 Volt, 60 Amp.	48/-
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RADIO FOR WOMEN.

Special Home Sessions.

It is interesting for women who listen in regularly to the cookery and fashion notes given by the Sydney broadcasting stations to learn that the great American station, WJZ, has also devoted special periods to the interests of the women of the radio audience.

One woman who broadcasts covers home economics, and the daily menu tells in her Monday morning hour how to make appetising dishes from food that is left over from the previous week-end.

What to wear! This is the ever-present question in the mind of every woman, and it is now answered through the agency of radio by a representative who is particularly competent to give satisfactory and timely answers. Even the latest modes which come to us from Paris are available at the twist of the dial on the receiving set.

Other features particularly dear to the hearts of women include the decorations of the home, advice on making curtains, suggestions for the artistic arrangement of furniture, suitable books for the library, care of the runabout child in the home, health instructions for parents, and, indeed, beauty hints. Even the dog and cat—their care and feeding—are not overlooked in this new schedule of broadcasting.

One woman listener informed WJZ that domestic happiness had come to her from "the little black box" (radio set). She said her husband now comes home to dinner, whereas formerly he could not tolerate the products of her kitchen.

Programme continued from page 39

Ltd., A. E. Hall & Co., Automobile Association. 7.40 Boy Scouts' Corner. 8—From the Studio: A programme of vocal and instrumental numbers under direction of Mr. Reginald Thrush. 10—Weather Observations and Forecast. Station Announcements. National Anthem. Close down.

THURSDAY, DECEMBER 3.

Morning Session: 11.30—Pianoforte Selections on Hobart M. Cable reproducing piano. 12.15—News and Cable Service. 12.30—The 5CL Studio Orchestra will play: Selection, "Rose Marie" (Friml), Cello solo, "Energie" (Earnst), Fox Trot, "Croon a little Lullaby" (Kerr), Trio, "Tromereit" (Schumann), Highland Lament, (Coronach) (Barrett), Waltz, "Colorado" (Delbon), Oriental Suite, (Frederick Hall), Serenade, (Haydn), Finale, (Schumann). 1.55—S. C. Ward & Co's. Stock Exchange Intelligence and Official Weather Synopsis. 2—Close down.

Afternoon Session: 3—Broadcast from Studio—pianoforte and Salanola items. 4—Broadcast from Messrs. Ellis' "Arcadia" Cafe, vocal and orchestral items under direction of Mr. Wm. R. Cade. 5—S. C. Ward & Co's. Stock Exchange Intelligence. Station Announcements. Close down.

Evening Session: 6.30—Bedtime Stories for the Children by Uncle Radio and King Electron. 7.30—Market Reports of Messrs. S. C. Ward & Co., A. W. Sandforth & Co., Farmers' Union, Dalgety & Co. Ltd., A. E. Hall & Co., Automobile Assoc. 7.40—Copec Lecture by the Rev. A. C. Stevens. 8—From the Studio: Studio Concert under direction of Mrs. Reginald Quesnel. The Students of Mrs. Reg. Quensel will render: Mr. Schilsky (violin), and Mr. Stanley Baines (flute), "Grendon Fair" Mr. Harold Tideman, violin solo, "Hungarian Dance" (Brahms), Miss Kate Yoerger, Bass solo, "Two Grenadiers" (Schumann), Mr. Ronald Moss, Ballad, "A little Brown Owl" (W. Sanderson), Miss M. Jury, Flute solo, Miss Connie Pether, Song, "Request" (Woolford Finden), Miss Olive Bassett, Operatic Air, "Pleurey mes yeux" (The Cid) (Massenet), Miss Linda Wald. Baritone solo, "The Night Rider" (Treharne), Mr. Mostyn Skinner, Song, "The Cuckoo" (Lehmann), Mrs. Harry Kauper, Duet, "O wert thou in the cauld blast" (Mendelssohn), Misses L. Wald and Beryl Counter, A.M.U.A., Tenor solo, "For you alone" (Geehl), Mr Ken Hughes, Violin solo, Miss Marie Coghill, Operatic Air, "Miscall's Song" (Carmen) (Bizet), Miss G. Cussion. Weather Observations and Forecast. Station announcements. National Anthem. Close down

3AR

ASSOCIATED RADIO CO. LTD.

Wavelength, 484 metres. Power, 1600 watts.

SATURDAY, NOVEMBER 28.

12 noon—Time Signal. Age News. Musical Items. 1—Close down.

Afternoon Session: 2.30—Result of Hurdle Race, 2 miles. 3—Result of Trial Welter Handicap. 3.30—Result of Sandown Plate, 6 furlongs. Musical Items from the Studio. 4—Result of

Sandown Park Handicap, 1½ miles. 4.30—Result of Sandown Purse, 1 mile. 5—Result of Jumpers Flat Race, 1½ miles. 5.5—Close down. 6.15—The Georgian Cafe Orchestra. 7.15—The Children's Corner by Uncle Rad.

Evening Session: 8—Time Signal. 8.15—Dance Night: The Rhythmic Dance Orchestra, under the direction of Mr. George Lewis, relayed from the Maison De Luxe, Broadway, St. Kilda. 9.30—Week-end Travellers' Information. Railway information supplied by the Victorian Railways Dept. Tramway Information supplied by the Tramways Board. Road Information supplied by the Royal Automobile Club. 9.50—Maison De Luxe Orchestra. 11—National Anthem and Close down.

SUNDAY, NOVEMBER, 29.

11 a.m.—Service from the Independent Church, Collins Street. 3 p.m.—Concert from the Studio. 7—Service from the Independent Church, Collins Street. 8.30—Musical Items from the Studio. 9.15—The Eclipse Grand Orchestra, under the direction of Mr. George Henry, relayed from the Eclipse Theatre, Port Melbourne. 10—Time Signal. Age News, Service exclusive to 3AR. Foreign Exchanges and Market Reports of the World, supplied exclusively to 3AR by Messrs. Thos. Cook & Son. 11—National Anthem and Close down.

MONDAY, NOVEMBER 30.

12 noon—Time Signal. Age News Service, Musical Items. 1—The Georgian Cafe Orchestra. 2—Close down.

3.30—Musical Items from the Studio. 4—Weather Reports. 5—Close down. 6.15—The Georgian Cafe Orchestra. 7.15—The Children's Corner by Uncle Rad. 7.30—The Boy Scouts' Bulletin. 8—Time Signal. Concert from Suttons Music Warehouse. Introductory Remarks by Mr. Sutton. 8.4—The Students of Miss Coulsen, L.A.B., will give a Part Song, "I know a Bank." 8.8—Mr. Roy Shepherd (winner of this year's Clarke's Scholarship); piano solo, Marche Militaire (Schubert). 8.11—Mr. Harold Webb (baritone): (a) The Horn (Fledger); (b) I Love a Little Cottage (O'Hara). 8.14—Miss Lorna Reid (songs at the piano): (a) Naughty Word (Norton); Hullo Tu Tu (Gathy). 8.18—Dulcitone and piano: (a) Gondoliers (Nevin); (b) Cygne (The Swan) St. Saens. 8.22—Mr. Tom Masters (tenor): (a) Lolita (Pizzi); (b) I Love you More (Dorothy Lee). 8.26—Concord Player Piano: Solo, Cmybal Dance (Chaminade). 8.31—Miss Dorothy Hus (soprano): (a) Will of the Wisp (Spross); (b) Serenata (Tosti), accompanied by music roll on "Concord" Player Piano. 8.35—Mr. Stevens (cornet solo) Land of Hope and Glory (Elgar). 8.38—The Students of Miss Coulson, L.A.B., part song: (a) When Twilight Weaves (Beethoven); (b) Happy Birds (Holst). 8.42—Mr. Tom Masters (tenor): (a) Has Sorrow Thy Young Life Shaded (Hughes); (b) Little Old Garden, accompanied by the Dulcitone. 8.47—Miss Lorna Reid (songs at the piano): (a) Are You There Mr. Bear (Blarney); (b) Agatha Green (Cooper). 8.51—Dulcitone Selections: (a) Danse of the Daisies (Benyon); (b) Spring Song (Mendelssohn). 8.55—Miss Dorothy Hus (soprano): (a) Down in the Forest (Ronald); (b) At Dawning (Cadman) accompanied by music roll on Concord Player Piano. 9—From the Studio of 3AR: Mr. Austin D. Peters, Dickens's recital: Montague Tigg negotiates a small Loan from Martin Chuzzlewit; (b) My old Foot-

BURGESS—"THE CONSTANT SATISFACTION ASSURED"—BATTERIES

ball (Milton Hayes). 9.17—Mr. Lance Warren (baritone): (a) The King's Minstrel (Pinsuti); (b) Sincerity (Clarke). 9.24—Miss Phyllis Shattock (pianiste): (a) 1st Movement Pathétique Sonata (Beethoven). 9.32—Mr. Edward Stock (elocutionist), Two Duds Sketches: (a) The Fact is—; (b) Reggie's Reasons. 9.41—Mr. Lance Warren (baritone): (a) Mulateer of Malagar (Trotter); (b) For You Alone (Gheel). 9.48—Miss Phyllis Shattock (pianiste): Study in D Minor (Heller). 9.52—Mr. Austin Peters: Mr. Fagin's Last Night Alive, from Oliver Twist, Charles Dickens; (b) Smile (Milton Hayes). 10—Time Signal; Age News Service, exclusive to 3AR. 10.15—The Georgian Cafe Orchestra. 11—National Anthem and Close Down.

TUESDAY, DECEMBER 1.

12 noon—Time Signal. Age News. Musical Items. 1—The Georgian Cafe Orchestra. 2—Close down.

3.30—Musical Items from the Studio. 4—Weather Reports. 5—Close down. 6.15—The Georgian Cafe Orchestra. 7.15—The Children's Corner by Uncle Rad. 8—Time Signal. Northey Du Maurier, Beauty Talk, "The Complexion." 8.17—Miss Marchesi Leonard (pianiste), Rigoletto Paraphrase (Liszt). 8.24—Mr. Harold Richmond (tenor): (a) Where're you Walk (Handel), (b) Molly Bawn (Lover). 8.31—Miss Elsie Mitchell (lyric soprano): Lo, Hear the Gentle Lark (Bishop), Flute Obligato by Mr. David Shaw; (b) Pierrot (Rubner). 8.38—Mr. David Shaw (flautist): (a) Valse Caprice (Wood), (b) Andaluse (Pessard). 8.45—Mr. Fred Nash (baritone): (a) On the road to Mandalay (Speaks), (b) Wayfarers Night Song (Martin). 8.52—Miss Alice Davies (violiniste): (a) Air from Concerto (Goldmark), (b) Scherzo (Dettersdorf-Kreisler). 9.2—Mr. R. J. Edwards, of Herschells Pty. Ltd., will speak on "A day with a Cinematographer." 9.17—Miss Margaret Groom, (contralto): (a) My Prayer (Squire), (b) Deeper My Love (del Riego). 9.24—Miss Alice Davies, (violiniste): (a) Waltz (Brindisi), (b) Lullaby (Cyril Scott). 9.31—Miss Isobel Harris (lyric soprano): (a) All in the Hush of the Twilight (Piccolomini), (b) Christina's Lament (D'Vorak). 9.38—Miss Dorothy Brown (entertainer): (a) The Funny Old World, (b) Only Seven. 9.45—Mr. Fred Nash (baritone): (a) Youth (Allitsen), (b) The Last Hour (Cramer). 9.45—Mr. Harold Richmond (tenor): (a) A Farewell (Liddle); I Know of Two Bright Eyes (Clutson). At the piano, Miss Ruth Phillips. 10—Time Signal, Age News Service, exclusive to 3AR. 10.15—The Georgian Cafe Orchestra. 11—National Anthem and Close down.

WEDNESDAY, DECEMBER 2.

12 noon—Time Signal. Age News. Musical Items. 1—The Georgian Cafe Orchestra. 2—Close down.

Ballarat Races: Results after each Race. 3.30—The Georgian Cafe Orchestra. 4—Musical Items from the Studio. Weather Reports. 4.45—Girl Guides' Bulletin. 5—Close down. 6.15—The Georgian Cafe Orchestra. 7.15—The Children's Corner by Uncle Rad. 8—Time Signal. 8.1—The Advance Orchestra. Fox Trots, one Steps, etc. 8.15—Mr. Harry Webster (tenor): A Brown Bird Singing (Wood), by request. 8.20—Miss Essie Downie (contralto): (a) Hindoo Song (Bemberg), (b) My Ships. 8.27—Miss Daisy Roberts (pianiste): (a) Watteau Paysage (Gowdsky), (b) Night in May

(Palmgreen). 8.34—Miss Sylvia Butler (elocutionist): (a) The Vicar's Presentation, (b) The Release. 8.44—Miss Mary Neilson (soprano): (a) Elegie (Massenet), (b) Open Thy Blue Eyes (Massenet). 8.51—Miss Doris Collard (pianiste): (a) Adagio Molto from Sonata in C Minor (Beethoven), (b) Valse Alsacienne (Holbrooke). 9—Mr. Ted Josephs (elocutionist): Selections from Enoch Arden (Tennyson). 9.7—Miss Hermione Trevillian (soprano): (a) The Dove (Ronald); (b) Angels Guard Thee (Goddard). 9.14—Mr. Harry Webster (tenor): (a) Mate o' Mine (Shmith); (b) I Love the Moon (Rubens). 9.21—Mr. Cyril Rendall (violinist): (a) Rondino (Beethoven); (b) Selected. 9.28—Mr. Walter Pearl (male soprano): (a) Lolita; (b) A Heart That's Free (Robyns). 9.35—Miss Maud Wigley (pianiste): Automme (Chaminade). 9.42—Mr. Ted Josephs (elocutionist): Scenes from On Our Selection (Steele Rudd). 9.49—The Advance Orchestra (selected). 10—Time Signal; Age News Service, exclusive to 3AR. 10.15—The Georgian Cafe Orchestra. 11—National Anthem and close down.

THURSDAY, DECEMBER 3.

12 noon—Time signal; Age News Service; Musical items. 1—The Georgian Cafe Orchestra. 2—Close down.

Ballarat Races: Results immediately after each race. 3.30—Musical items from the Studio. 4—Market and Weather Reports. 4.40—Special pig and calf reports, supplied by Messrs. McPhail, Anderson & Co. 5—Close down. 6.15—The Georgian Cafe Orchestra. 7.15—The Children's Corner, by Uncle Rad. 8—Time Signal; Lecturette on the Care and Feeding of Infants. 8.15—Musical items from the Studio. 8.30—Weekly Radio Chat, under the auspices of the Popular Radio Weekly, Radex, Mr. J. Len Bain, will talk on "What Kills the Kick in Reflexing." 9—Dance Night: The Rhythmic Dance Orchestra, under the direction of Mr. George Lewis, relayed from the Maison De Luxe, Broadway, St. Kilda. 9.30—Mr. Leonard Cook will give a pianoforte recital. 9.50—Maison De Luxe Orchestra; Age News Service, exclusive to 3AR. 11—National Anthem and close down.

FRIDAY, DECEMBER 4th.

12 noon—Time signal; Age News Service; musical items. 1—The Georgian Cafe Orchestra. 2—Close down. 3.30—Musical items from the Studio. 4—Weather reports. 4.30—Mr. R. Stanley Haines, of Brunings Pty. Ltd., will give a Gardening Talk for the children. 5—Close down. 6.15—The Georgian Cafe Orchestra. 7.15—The Children's Corner by Uncle Rad. 8—Time Signal. 8.1—Mr. R. Stanley Haines, weekly gardening talk. 8.16—Miss Fanny Lyndhurst (contralto): (a) Land of My Delight (Sanderson); (b) Still as the Night (Bohm). 8.23—Miss Hazel Ralph (soprano): (a) Farewell to Summer (Johnson); (b) Good-bye (Tosti). 8.30—Madam Royer-Easton, French talk: "Recapitulation de guelgues unes des remarque—Anecdotes diverses." 8.41—Mr. Roy Ramage ('cellist): (a) Le Baiser (Goring Thomas); (b) Because de Jocelyn (Goddard). 8.49—Mr. Fred Smyrk (bass-baritone): (a) Blow, Blow, Thou Winter Wind (Sargeant); (b) Friend of Mine. 8.56—Mr. Fred Harris (violinist): 2nd Romause (Tours). 9.1—Miss Nellie Walls (soprano): (a) A string of Pearls (Phillips), (b) Until (Sanderson). 9.8—

Programme continued on page 46

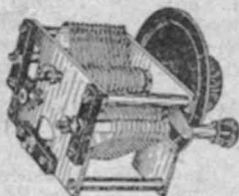
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Continued from page 40

night, as was the case of the July transmissions on super power.

The report of the engineers follows:—

“Letters were received from the West Coast, Cuba, British Columbia, and England. These locations can normally receive WGY on 379.5 metres during the winter only.

“Super power resulted in a very definite increase in signal strength.

“The increased power was of material assistance in overriding static.

“It is questionable to just what extent increased power assists in reducing fading, although it apparently is of some benefit.

“In no case did the higher power prevent reception of distant stations.

“In general, the reports indicate increased signal strength as follows:—Louder than WGY, p.c. of reports 75; same strength as WGY, p.c. of reports 15.27; weaker than WGY, p.c. of reports 9.73.

“Of the 75 per cent., 42 per cent. reported exceptionally loud signals.

“It is of interest to note the effect of increased modulation as indicated by the reports received. Transmission, July 26; p.c. mod., 25; p.c. of reports stating exceptionally strong signals, 14.2. July 29—50—29.1 August 2—75—42.7.

“Between 75 and 80 per cent. of the reports on static indicate that the increased power overrides the static to some extent. It should be noted that during the super power transmissions the static was very severe.

“Of the reports received which give fading data, 30 p.c. report bad fading, 45 p.c. moderate, and 25 p.c. no fading. One characteristic specifically mentioned is that, whereas WGY normally fades out of audibility, the super power set does not.

“About 55 p.c. reported good to excellent quality, 4 p.c. fair to good, and 5 p.c. not as good as WGY on normal power.

“In no case did a report indicate that super power prevented distant reception even from receiving points within a few miles of the transmitter.”

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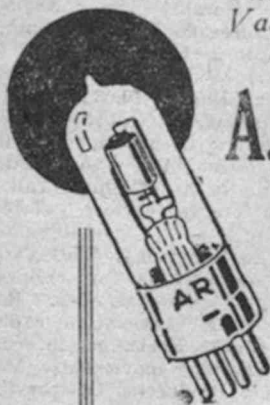
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Programme continued from page 43

The Merry Mixtures Instrumental Trio, Liselette (Leon). 9.13—Mr. J. Lloyd Jones (elocutionist): The Skylight Room by O. Henry. 9.24—Miss Florence Payen (soprano): (a) Obstation (Fontenailles), (b) I love the Moon (Rubens). 9.30—Mr. Fred Mitty, Special Racing Commissioner to 3AR, "Racing Anticipations." 9.40—The Merry Mixtures Instrumental Trio, "Water Lilies (St. Clair). 9.45—Miss Fanny Lyndhurst (contralto): My Heart is Weary (Thomas), (b) Selected. 9.53—Mr. Fred Smyrk (bass-baritone): (a) Son of Mine (Wallace), (b) Mulateer of Mulaga. 10—Time Signal. Age News Service, exclusive to 3AR. 10.15—The Georgian Cafe Orchestra. 11—National Anthem and Close down.

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FRIDAY, NOVEMBER 27.

Morning Session (11 a.m. to 2 p.m.): 11—Time Signal. Express Train information. 11.3—Musical items by the Buckley and Nunn Studio Orchestra. 12—Time Signal. 12.2—Buckley and Nunn Studio Orchestra. 12.30—"Argus" and "Herald" news services. Reuter's and the Australian Press Association cables. 12.45—Buckley and Nunn Studio Orchestra. 1—Time Signal. 1.2—Buckley and Nunn Studio Orchestra. 1.45—"Herald" and "Argus" news services. Weather forecast. River reports. Stock Exchange information. 2—Close down.

Afternoon Session (3 to 5.15 p.m.): 3—Time Signal. 3.1—Dr. Dumont Dunn, Ph.B., D.Litt., "Stars of the Literary Firmament." 3.15—Musical items by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco. 4.45—"Au Fait," of Buckley and Nunn Ltd., in a "Fashion Talk." 5—"Herald" and "Argus" news services. 5.15—Close down.

Evening Session (5.30 to 7.15 p.m.): 5.30—Children's Hour. Radio song competition for children. 6.45—"Herald" and "Argus" news services. Reuter's and the Australian Press Association cables. Market reports. Closing Stock Exchange information. Weather synopsis. Shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Dairy cattle, sheep, carcase meat, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.15 to 11 p.m.): "A Musical Salad." Speakers: Mr. R. H. Wilmot, Mr. J. W. McKenzie, Mr. Arthur Stigant, Mr. R. A. Broinowski. The Collingwood Citizens' Band (musical director, Mr. P. C. Johnstone). Mr. Darvall Thomas, tenor; Miss Dorothy Dane, soprano; Mr. Eric J. Wood, baritone; Miss Mavis Turner, elocutioniste; the Moana Lua Duo, Hawaiian instrumentalists. 7.15—Mr. R. H. Wilmot, "Everyday Chemistry—Acetylene." 7.30—Under the auspices of the Development Australia League, Mr. J. W. McKenzie, "Our

Heritage." 7.45—Mr. Arthur Stigant, playing "Francois" in "The Street Singer," will speak from his dressing-room at His Majesty's Theatre, by permission of J. C. Williamson Ltd. 8—The Collingwood Citizens' Band, march, "Stratheona"; overture, "If I were King." 8.15—Mr. Darvall Thomas, tenor, "Memory of a Song" (Nicholls), "O Paradiso"—"L'Africana" (Meyerbeer). 8.22—The Moana Lua Duo, "One, Two, Three, Four;" solo, "The Rosary," Mr. L. Sparrow; "Pua Carnation," "Hawaiian Lullaby." 8.37—Miss Dorothy Dane, soprano, "Here's to Love" (Rubens), "Dreamy Melody" (Naset). 8.44—Collingwood Citizens' Band, cornet solo, "Titanic," soloist—Mr. J. Armour; waltz, "Bells of St. Anne's." 8.59—Mr. R. A. Broinowski, "Famous Men of the Ages—Dante." 9.14—Collingwood Citizens' Band, march, "Siberia"; march novelty, "Toy Drum Major." 9.24—Mr. Eric J. Wood, baritone, "The Trumpet Call" (Sander-son), "Because I Love You, Dear" (Forster). 9.31—Miss Mavis Turner, elocutioniste, "The Death of Sydney Carton" (Dickens). 9.39—Collingwood Citizens' Band, grand selection, "Works of Haydn." 9.54—"Argus" and "Herald" news services. 10—Mr. Darvall Thomas and Miss Dorothy Dane, duets, "Red School House," "Sympathy" (Friml). 10.7—The Moana Lua Duo, "Aloha Oe Waltz," "Three O'Clock in the Morning," "What'll I Do," "Hilo March." 10.22—Mr. Eric J. Wood, baritone, "Love, I have won and held you" (Ronald), "Land of the long ago" (Ray). 10.29—Collingwood Citizens' Band, one step, "Sing a Song." 10.34—Miss Mavis Turner, elocutioniste, "Johnnie, Me and You" "The Bigly Hole." 10.44—Collingwood Citizens' Band, march, "Behind the Hounds"; waltz, "The Chorister." 11—"God Save the King."

We regret that owing to unforeseen circumstances, the main portion of the 3LO Programme could not be included in this issue.

Revival of Queensland Institute of Radio Engineers.

Although this club was closed for quite a time, quite a surprise was beheld in the radio club circles in Brisbane when it was announced that the Engineers were again opened. The club's rooms and fine aerial are connected to the Observatory Tower on Wickham Terrace. The aerial is one of the highest in the city, being over a hundred feet in height and situated on a high hill.

The President of the body has just returned from England, where he learned much about wireless. Many of the members will benefit by some of his sound advice.

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Notes from Queensland

4QG and Armistice Night.

On Armistice night, 4QG broadcasted a special programme. Beginning at 7.20 the announcer described the procession, which marched past the Executive Buildings, on which the microphone was placed. Each band was heard as it marched on its way to the Brisbane Domain. One notable factor was the chimes of the bell of St. Stephen's Church, which is situated about a quarter of a mile from the building; the chimes were plainly heard at 7.30, and this certainly speaks highly for the selectivity of the transmission and microphone of 4QG.

Later in the night the bands and choirs were broadcast from the Brisbane Domain where a carnival was being held but the transmission did not come through so clearly as that in the early part of the night as the microphone was placed too far away.

Alteration Sought in Wave Length:

On the visit of Mr. J. Malone, Controller of Wireless, to Brisbane at the beginning of the month, a

delegation comprised of most of the radio traders of Brisbane visited him.

This delegation was formed with the object of requesting alteration in the wavelengths of 4QG, 3LO, 2BL, and 5CL. The dealers complained that super sets were required to tune any of the latter stations, whilst 4QG was on the air, these station waves being very close to each other. In reply Mr. Malone assured those present that he would consider the important problem, but he also pointed out that within the next five years, stations would be established at Rockhampton, Toowoomba and Townsville, and then it would mean sharp tuning both by the station sending and the reception of these stations if they were any distance at all away; and, on the other hand, the listeners in general, would have to be content with their local stations. This very important question is not only being argued in Queensland, but there is also discontent in all the other States—when listeners try for distance there is interference to be dealt with which is caused by the local station. It is hoped that the Controller of Wireless will not let this matter slip.



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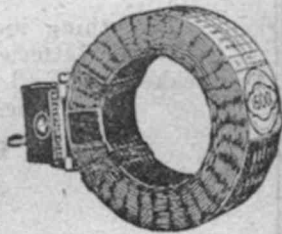
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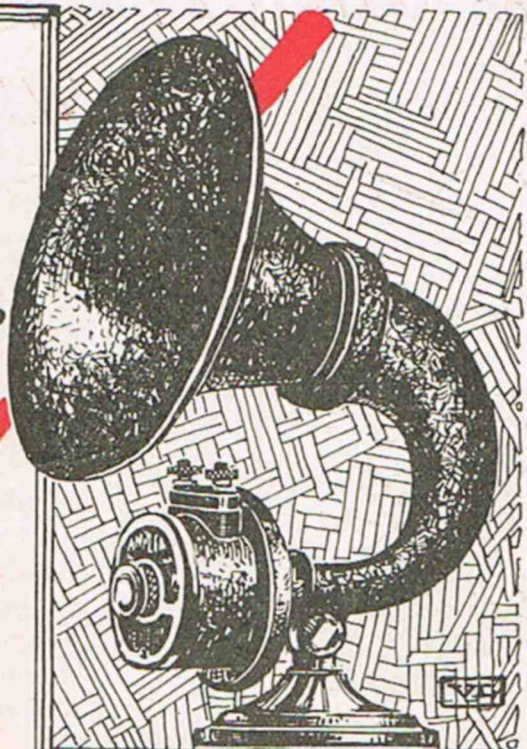
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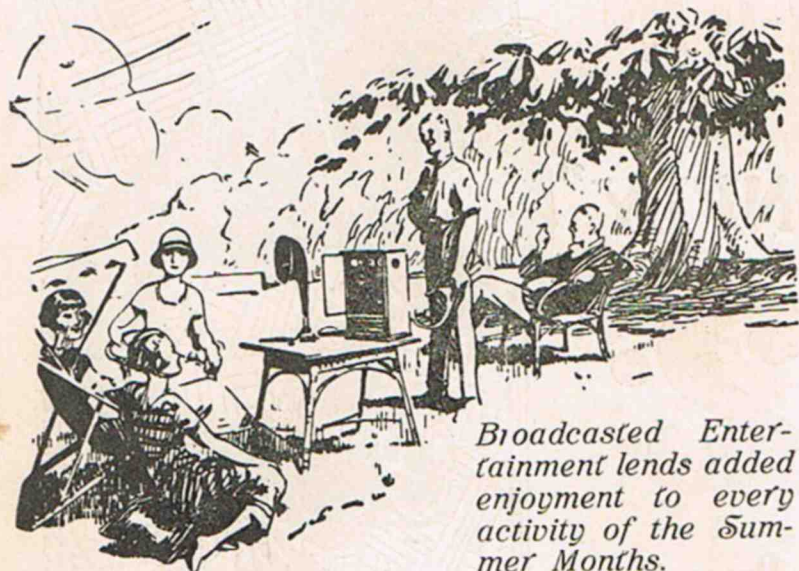
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