

# WIRELESS WEEKLY

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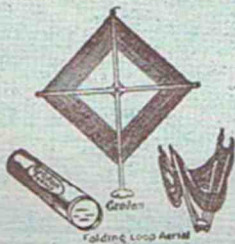
FRIDAY, OCT. 30, 1925



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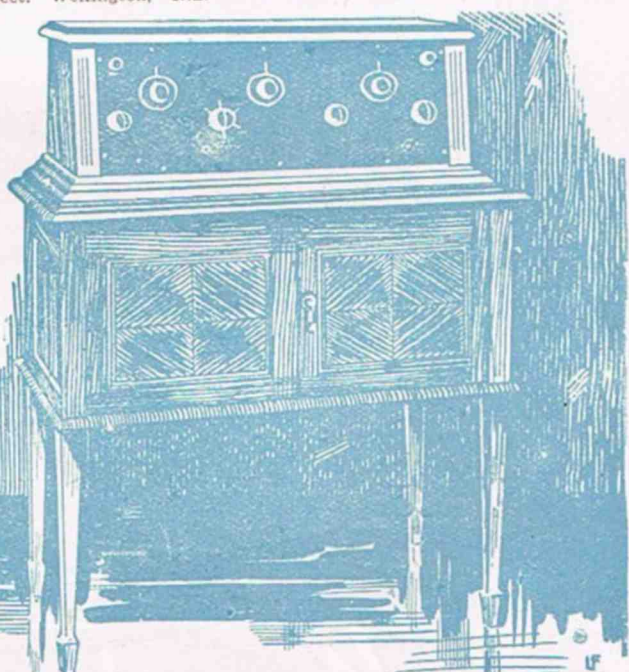
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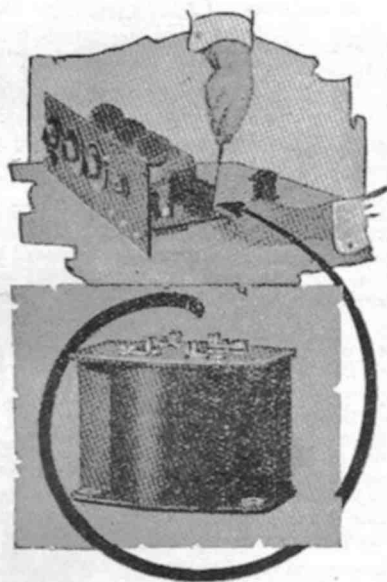
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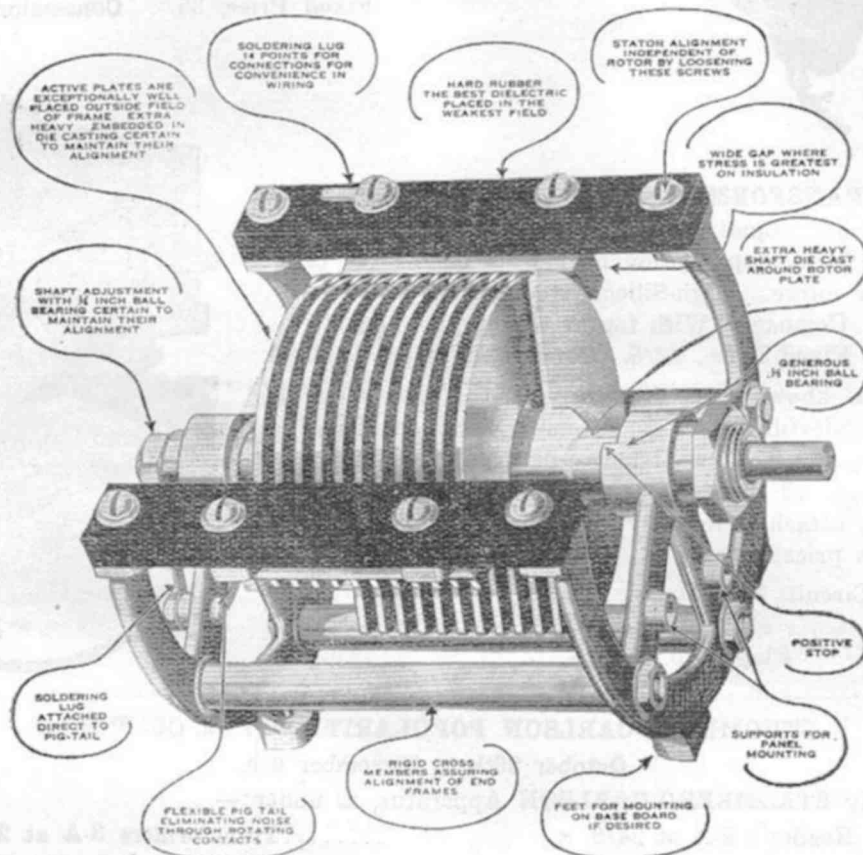
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# WIRELESS WEEKLY

'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.

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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/-. A maximum of four questions is allowed.

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### ACTION.

IT is a very real pleasure to announce that definite action is to be taken with regard to the Australian Radio Relay League.

The failures of the past were all forgotten in the enthusiasm evinced at a well represented meeting of the Club Delegates on Friday evening, October 23rd. As a result of that meeting it may be absolutely taken for granted that this time the League is here to stay and that it will commence to function just as soon as the constitution is drawn up.

By its action in convening this meeting and in courting the fullest discussion the Wireless Institute has shown a very broadminded attitude, and the fact that it has given the clubs, through the delegates, every opportunity to draw up a scheme, reflects no little credit upon the policy of the Institute and the reliance it places upon the cordial relations between it and the clubs.

Wisely enough, the delegates present decided that so important a matter as a decision upon the three or four schemes submitted could not be finalised on that evening, and the action taken in deciding to refer the matter again to the club members cannot but have a beneficial effect. At the

next meeting, in a fortnight or so, delegates should be in a position to take up the discussion with a view to finality.

On this occasion, the Australian Radio Relay League MUST be launched—there can be no question of failure and the final scheme must be as perfect as possible.

It has been argued that membership of the League should be limited to amateurs, but we are of the opinion that equal opportunity to join its ranks should be extended to every person genuinely interested in wireless, and the best way to encourage support is to make it easy for ANYONE to join. After that the next question is to make the League such an interesting affair that the Member this year will be a member next year. By aiming at the broadcast listener, the organisers of the League will be appealing to the public, and public good-will in this case is essential to success.

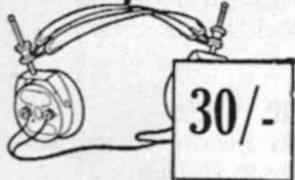
The greatest interest will be shown in wireless circles in the scheme ultimately adopted for starting the Australian Radio Relay League, and it is a matter for congratulation upon all the parties concerned that at last the thing is being tackled seriously.

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. Ferrett Publicity Officer.

## Monthly General Meeting.

The monthly general meeting of the New South Wales Division of the Wireless Institute of Australia, was held at the Royal Society's Hall, 5 Elizabeth Street, Sydney, on Thursday, October 15, 1925, when the Institute's transmitter was on view.

The transmitter, which will work under the call sign of 2WI, although not quite completed, was nevertheless well advanced and only required a small amount of wiring to be done. It has a very business-like appearance, and it is constructed of the best parts throughout.

In reference to the construction of this transmitter, Mr. Stowe said that the transmitter had been built from the funds of the Institute. It was the members' own transmitter. Mr. James had constructed it, free of cost, in his own time.

Mr. James, in describing the transmitter, said that the circuit used was the Hartley, which was flexible, had a large power output, and was easily adaptable to changes in wavelength. The input would be four hundred watts, and two 250 watt tubes would be employed. The modulation was Heissing. Four "S" tubes were used for rectification. Mr. James drew the circuit on the blackboard and explained it.

As soon as the remaining amount of work is completed arrangements will be made for putting 2WI on the air, and this should take place now at a very early date.

During his remarks at the meeting Mr. Stowe said that the Institute was the first body in the Commonwealth to handle wireless communication along private lines. The Post and Telegraph Act as it stood now did not allow that being done, but Mr. Malone had given permission for the Institute's executives to use its transmitter in this way.

The chairman, Mr. Cooke, said that this Institute was the oldest organisation of its kind in the British Empire, and called upon Mr. Taylor, who was its first chairman, to give a vote of thanks.

Mr. Taylor said that Mr. James had reminded him of Hargraves who, 40 years ago, gave a discourse in the same hall. Hargraves' kite flew from the door to the platform. Mr. Taylor pro-

posed a very hearty vote of thanks to Mr. James for his fine work, and also to Mr. Stowe.

The motion was seconded, and carried unanimously, and the gentlemen in question suitably replied.

Mr. Taylor thought that a message might be sent to Mr. Hargraves congratulating him on his work. A motion was seconded and carried, instructing Mr. Taylor to write the letter he desired to be sent.

Mr. Tranter suggested that the meetings should be commenced on time, that is 7.45 p.m. The chairman promised to take the matter up.

## New Members.

At the monthly general meeting the following new members were unanimously elected in the country grade:

L. T. Swain, 49 Everton Street, Hamilton.

A. E. Martin, Engineer, Red Cross Sanatorium, Wentworth Falls.

T. Evans, Charles Street, Blayney.

## Round the Clubs

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

### LEICHHARDT AND DISTRICT RADIO SOCIETY.\*

Third Annual Report. Oct. 6, 1925.

Once again members of this society meet together for the purpose of holding an annual meeting, and having undertaken to write a report setting out our numerous activities during the past 12 months, I find it exceedingly difficult to combine detail and brevity. In fact, it is only by a perusal of the minutes of the 49 general and 14 council meetings held since the second annual meeting that one realises the great amount of work that has been accomplished by the society.

Commencing with the very important matter of membership, we find that, since Oct. 10th of last year, the date upon which our second annual meeting was held, 27 new applications for membership have been accepted, and a further nine are to be

dealt with at this meeting. Against this must be placed the fact that there have been nine resignations, but the credit balance, as it were, is a substantial one, so that, as far as the society's membership is concerned, there is little room for complaint. At the present the tendency is for a marked increase in the number of applications coming to hand, and in this connection there is every reason for satisfaction.

Coming now to the matter of lectures, it is pleasing to note that this section of the society's activities has not been neglected, as no less than 26 lectures have been delivered before its members during the past 12 months. The subjects dealt with by the lecturers have been many and varied, and in each and every case the lectures themselves were most instructive and entertaining. In the majority of cases this work was entrusted to the members themselves, but mention must be made of the valuable assistance rendered in this connection by Mr. A. G. McFarlane, Mr. Malcolm Perry, Mr. K. Campbell, Mr. C. W. Slade, and Mr. C. F. Luckman.

Passing now on to other matters, one finds that there has developed a tendency on the part of the society to widen its circle of activities, as it were, and in this regard it is interesting to note that, largely due to the incentive of members themselves, a very valuable interclub movement has sprung up, is flourishing, and promises to have very far-reaching effects in the wireless experimental movement. During the past few months there have been a number of visits arranged to and from other wireless clubs, and the results have been most beneficial to all concerned.

Another very important matter inaugurated during the past 12 months was the Maclurean Cup Competition, and there is no doubt but that this contest has been the means of stimulating interest in club matters, as well as creating a keen rivalry between the clubs themselves, a fact which can have none but beneficial results. Of course, this society is a competitor for the cup, and at the end of the first period of the contest was allotted third place on the list of competitors. Since then our activities have been, if anything, more lively than ever, and we look forward to the end of the second period with great confidence and anticipation.

Closely allied with the interclub movement has been the "All Clubs' Night" instituted by the Wireless Institute of Australia, and during the past 12 months members of this society have had the pleasure of being present at five of these functions.

During the period under review two screenings of most interesting cinematograph pictures were made for the benefit of members, and in this connec-

tion the thanks of all is due to the Australian General Electric Co. Ltd. for its kindness in providing the films made use of on these occasions.

On January 13th and April 21st of this year members had the pleasure of the company of Messrs. A. W. Watt and W. Hamilton. On the first occasion they were present for the purpose of acting in the capacity of joint judges in a "Short Papers" Competition held amongst members of the society, and this particular meeting was one of the most enjoyable of the year's gatherings. Although entries for the competition were not as numerous as they might have been, interest in the result of the competition was not lacking, and honours went to Mr. A. H. Dayman and Mr. H. Whitworth. The second occasion of Messrs. Watt and Hamilton's visit was made a social evening, and this, too, proved a most enjoyable occasion. Another social evening was held on December 23rd of last year to mark the close of the society's activities for the year, and it, too, was very successful. Whilst dealing with the social side of the society's work, mention should be made of two dances and a launch excursion held during the past 12 months.

Two debates were held during the period under review, the first being held amongst members themselves and proving very successful, and the second an interclub debate between members of this society and the Croydon Radio Club. On the latter occasion a general invitation was forwarded to members of the Croydon Radio Club, and a number of its members availed themselves of the opportunity of listening to a most instructive debate. Interest in the proceedings was very keen, and opinion so evenly divided that when a vote on the matter was taken it resulted in a draw!

In February of this year a proposal was put forward that the society move to other quarters, and although the offer was not accepted two members were appointed to act as a committee for the purpose of endeavouring to locate more suitable premises for the conducting of the society's business. They were unsuccessful in their attempts to do so, however, and since then considerable improvement has been made in the appearance of the clubroom at present occupied. Messrs. Buckley and Nordstrom are to be thanked for this fact, and it is hoped that still further improvements will be carried out during the next few months.

On May 6th, 1925, the society became the proud possessor of an experimental transmitting license under the call signal 2LH, and further progress in this matter has since been made by the purchase from Mr. F. J. Lett at a very satisfactory figure of a 5-watt transmitting set. The formal handing over

of the apparatus has only just been completed, so that time has not permitted of much advantage being taken of its possession, but is expected that it will soon become a great asset to the society.

The foregoing briefly sets out the principal points in the society's activities during the past 12 months, but this report would not be complete were mention not made of such matters as the establishment of a question box for the use of members, the printing of a very attractive syllabus card for distribution amongst members and others interested in the society and its work, and the adoption of a penant for the use of members. Also, it should be mentioned that, thanks to Mr. A. H. Knight, an ex-member of the society, a very attractive notice board was presented to members early in the year. This board has since been erected in the passageway leading to the clubroom, and should be no small means of advertising the society's existence. Another matter worthy of special mention is that the society is now in possession of a wavemeter, this being constructed by Mr. F. Lett at the instance of Mr. Whitworth, and when calibrated should be of invaluable assistance to members.

During the past 12 months one "Questions and Answers" evening was held, two "Sales and Exchanges" conducted, and two visits made to the commercial station at Pennant Hills.

Provision has also been made for admittance to the society of honorary members, and up to the present this honour has been conferred upon two persons, viz., Mr. A. H. Knight and Mrs. L. Nordstrom.

In conclusion, I would like to place on record the very valuable assistance which has been rendered to the society by Mesdames Nordstrom, Dick, and Fox on the occasions when social events have required "the touch of a woman's hand." Ladies, we thank you!

A summary of the year's activities as set out above makes, I think, very satisfactory reading, and the thanks of the society's officers is due to the general body of members for the keen interest which they have taken in all that has been done to make the society's work a success. The past is more than satisfactory, and the future is full of promise. What more could we wish for?

#### WAVERLEY RADIO CLUB (2BV)\*

Waverley Radio Club have just completed another six months of interesting work, and it is pleasing to look back and see just what has been done.

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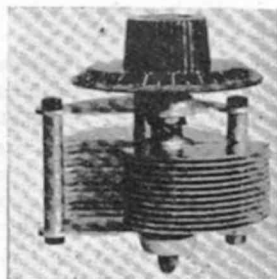
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Many interesting visits have been arranged and have been well attended by our members.

The syllabus for the ensuing six months is a very comprehensive one and includes many novel features.

Persons interested in the club's activities should communicate with the Secretary, Mr. W. A. Stewart, 15 Belgrave Street, Waverley.

### THE CROYDON RADIO CLUB\* 2YB.

The usual weekly meeting of the above Club was held at the Club Rooms, "Rockleigh," Lang Street, Croydon, on Saturday, October 16th. The President, Mr. C. W. Slade, occupied the chair.

The meeting was conducted as a general business night.

Mr. Cutts has returned to the fold, and gave a very interesting account of his experiences up-country, or rather, some of his experiences.

Two new text books were purchased for the Club's Library, and instructions given for the purchase of more.

All enquiries to the Hon. Secretary, A. L. Fitch, "Rhos," Hay Street, Croydon.

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Have you entered our competition yet?

The closing date for our Best portable Set Competition is drawing near. The Competition closes definitely on Friday, November 6th, and the Adjudication will take place on Friday, 20th.

If you have not already entered, do so at once. You have as much chance of carrying off the prize as any other competitor.

It is our aim to promote the popularity of Radio by offering a set that combines extreme portability with excellent reception. We will gladly give every assistance possible to competitors.

#### CONDITIONS.

Preference will be given to sets employing a Frame Aerial. Selectivity, volume, quality, weight, compactness and general features of portability are, of course, an important consideration.

There is no limit to the number of Valves to be used, and it should be noted that only sets employing Phillip's Valves will be eligible. These valves must be purchased at this Store, where an entry form will be given.

We would suggest the use of B6 and D6 Valves for the fact that they render unnecessary the use of B batteries, thus reducing the weight of the set. Additional points given to sets using these valves.

To those desiring it, charts and expert advice will be given. Any problem you may have, our Experimental Staff will only be too glad to advise you.

#### START YOUR SET TO-NIGHT

Start planning your set to-night. You have as good an opportunity of winning this prize as any.

#### NOTE.

We reserve the right to purchase the winning set, but all sets, it is clearly understood, are the sole property of the competitors.

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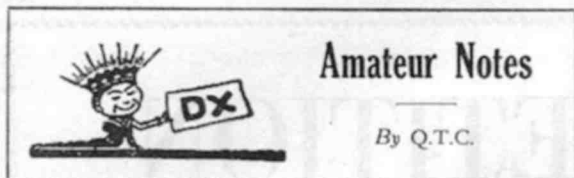
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## Amateur Notes

By Q.T.C.

A FEW years ago Marconi developed his idea of Beam Wireless, and now within the next few months the system is to be used in connection with a plan for Empire-wire communication. There is very little doubt that the future of commercial wireless is wrapped up in these ultra short waves focussed into a beam. The focussing of the waves is carried out by a reflecting system of wire shields. It is the same principle that enables us to reflect the rays of the sun into a single bright beam by means of a looking-glass. These beam stations can cover an enormous distance using only a fraction of the power that is used in the present trans-world stations. As a result of this, they do not dig into the country's pockets so deeply as do the stations now in use—this applies both to the initial cost of construction and to running costs. All the foregoing remarks apply to telegraphy.

The great difficulty in modulating ultra short waves makes practical beam telephony a matter of doubt. This, however, should be overcome in the near future, as also should the distortion which mars the transmissions of such stations as KDKA working below 70 metres. When these initial difficulties have been solved, then truly we can look forward to that much talked of era of International Broadcasting.

As the ether becomes more and more crowded, and a greater number of signals fill the air, then our young men turn to thoughts of selectivity. Now, apart from this or that hoop-up, what is the best means of gaining our end? By loose coupling or a wave trap? In favour of loose coupling we may say that it gives great selectivity without any great loss of signal strength. Against it we find that with radio frequency amplification it makes the set uncontrollable and practically useless. On the contrary, a wave trap is quite successful with stages of R.F., but it is inclined to weaken signals. It must also be borne in mind that a wave trap will work where loose coupling is an utter failure. From this it would appear that it cannot be definitely stated which is the better method, everything depending entirely on conditions and the receiver.

### HERSCHEL HENLERE BROADCAST.

Listeners to 2FC Station had an opportunity on Tuesday evening, the 20th October, of hearing

this world famed pianist, who for twenty minutes delighted listeners with his "Irish Fantasia." No announcement was made as to the identity of the pianist, and listeners were invited to send their solutions, giving the name of the artist, with the result that over 500 replies were received with the correct solution. In addition, numbers of letters were received giving the names of well known pianists who are thousands of miles away, also including many well known actors and singers.

The Management of the Tivoli Theatre have forwarded double tickets of admission to the six first correct answers opened.

### THE LEICHHARDT AND DISTRICT RADIO SOCIETY.\*

(Licensed Experimental Transmitting Station 2LH.)

On Tuesday, October 20th, members of the Leichhardt and District Radio Society held their 148th general meeting at the club room, 176 Johnston St., Annandale.

The attendance was all that could be desired, and this fact must have been most gratifying to Mr. Phil Renshaw, who was present for the purpose of addressing members on various phases of the wireless experimental movement in Australia. The visitor dealt with many aspects of this most vital matter, and his remarks throughout were most interesting and enlightening to all present. At their conclusion a vote of thanks was accorded Mr. Renshaw, who expressed pleasure in having been given the opportunity of addressing the meeting.

Next Tuesday evening the society will hold its 36th monthly business meeting, at which applications for membership on hand will be dealt with, and other formal business discussed. In addition, Mr. J. R. Alexander will deliver the tenth lecture of Syllabus No. 4, under the title "Magnetic Rectifiers." The subject is an interesting one, and the lecture should prove to be well worth listening to.

Inquiries regarding the activities of the society are always welcomed, and should be addressed to the Hon. Secretary, Mr. W. J. Zech, 145 Booth Street, Annandale.

The block published at the top of page 30 in the article "The New Sydney Station" was reproduced by courtesy of "The Sydney Mail."



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Two Coil Fittings:—Low loss type . . . . .	3	9
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## THE ECONOMIC RADIO STORES

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# Regeneration Simply Explained

FOR BROADCAST LISTENER OR EXPERIMENTER.

(By "Wireless Weekly.")

**P**ROBABLY more than 90 per cent. of valve receivers used in Australia to-day employ some form of regeneration. This article, besides being instructive, should prove of practical help to our readers in teaching them just how to take advantage of this wonderful phenomenon without interfering with neighbouring receivers.

The action of the valve was described in last week's "Wireless Weekly," and it is now only necessary to discuss the more practical side of the question. Without a doubt the most efficient method of utilising the properties of any one wireless valve for the purpose of reception of radio signals is the regenerative or reaction method.

In a well-designed regenerative receiver the amplification obtained is invariably greater than that obtained by a well-designed one or two stage radio frequency amplifier. The substantial economy of the regenerative method is thus demonstrated. The principle underlying regeneration is to utilise some of the energy liberated in the plate circuit of the valve by the incoming oscillations, to boost or increase the persistency of the incoming oscillations. At first sight this appears to be rather like "robbing Peter to pay Paul." But it is exactly what happens, and it must be remembered that the energy in the plate circuit is derived from an entirely different source from that which is controlling it by the grid (see last week's "Wireless Weekly"). The amount of energy liberated by the plate depends entirely upon the amplitude of the received oscillations. If, there-

circuit, thus enormously increasing the magnifying effect of the valve.

Fig. 1 shows the circuit diagram of the well-known P-One hook-up.

Let us imagine that a current is oscillating in the aerial circuit at a frequency corresponding to the wavelength to which it is tuned by the condenser S1 and the inductance L1. The result of this oscillating current is to impress corresponding oscillating voltages on the grid of the valve, via the condenser S2. This in turn produces rectified pulses of high frequency current in the plate circuit of the valve.

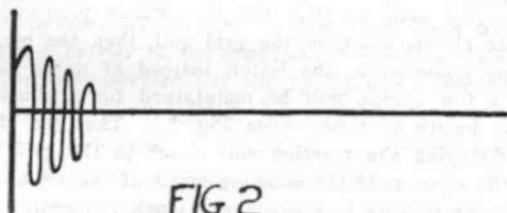


FIG 2.

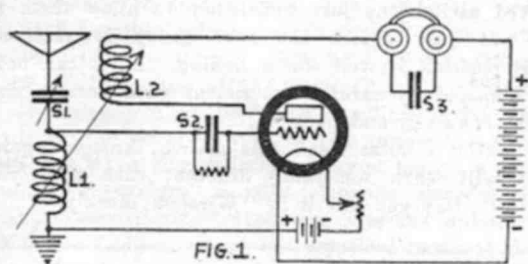
*Plain oscillation not boosted by regeneration.*

This frequency of oscillations in the plate circuit is the same as the frequency of the incoming oscillations, and therefore also the same as the frequency of the grid oscillatory circuit. So that any E.M.F. induced in the grid coil by the oscillatory current flowing through the reaction coil will add itself to that induced in the grid coil by the incoming oscillations.

It must be remembered, however, that when receiving speech or music there is also a low frequency change of plate current, corresponding to the frequency of the speech or music variation. It is these low frequency changes of current which flow through the telephone windings, actuate the diaphragms, and give rise to the speech or music being heard by the ear.

Regarding regeneration, however, we are only concerned with the H.F. oscillations of current flowing through the tickler coil L2, which is electrically coupled to the aerial per inductance L1.

The amount of this extra E.M.F. induced in the grid coil by the reaction coil can readily be con-



Circuit Diagram of P-1 Receiver

fore, we utilise some of this energy to increase the amplitude of the received oscillations, this in turn will cause more energy to be liberated in the plate

**Philco Dynamic for less worry and better results.**

trolled by adjusting the coupling between the two coils, and by varying the number of turns or size of reaction coil. By varying the value of coupling we can therefore get any desired degree of amplification (within certain limits) of the incoming oscillations. The effect of this on the received oscillations will be more easily understood by referring to Figs. 2, 3, and 4. Fig. 2 represents a group of received oscillations such as might be produced in the grid coil, assuming that the coupling between the reaction coil and the grid coil is zero.

Owing to the loss of energy due to the resistance of the aerial and grid circuits, these oscillations are highly damped and die out after a very few cycles. It will readily be seen then that the oscillations in the plate circuit will also die out in a very few cycles, because all the energy in that circuit is being converted by the telephones into sound as fast as it is available.

If now the reaction coil be brought nearer to the grid coil, so that the oscillations produced in plate circuit react on the grid coil, then the oscillations produced in the latter, instead of dying down in a few cycles, will be maintained for a considerable length of time. (See Fig. 3.) Thus the effect of bringing the reaction coil closer to the grid coil is the same as if the damping effect of the aerial and receiver circuits had been very much reduced. The question now arises as to what happens if we go on increasing the electrical coupling of these two coils. At first more and more energy is thrown back from the plate circuit to the grid circuit, with the result that a marked increase of volume is the result in the headphones or loud speaker. As the reaction coupling is still strengthened by bringing coils still closer together, the effective damping or resistance losses are gradually reduced to zero, and after that it even becomes even less than zero.

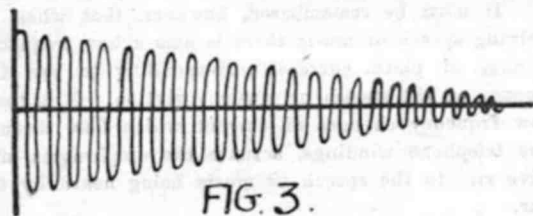


FIG. 3.

Oscillation boosted by regeneration.

When this condition is reached the oscillations started by the incoming signal have ceased, and the receiver has then become in effect a small power

transmitter, and the well-known howling note is heard in the telephones.

The fact that a receiver is oscillating is readily demonstrated by a click which is heard in the phones when the aerial terminal is touched by the finger, and which disappears when the reaction coupling is reduced (viz., L2 moved farther away from L1).

It is most important to remember that when the howl mentioned above is heard, the same noise is heard in all other regenerative valve receivers in the

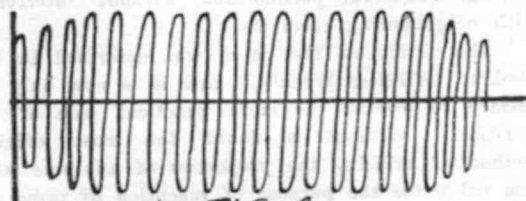


FIG. 4.

Valve oscillating

neighbourhood which are tuned to the same wavelength, and very serious interference is being caused. Furthermore, when a receiver is worked too close to the oscillation point, distortion is bound to occur. We strongly appeal to our readers to experiment with smaller size reaction coils; for the lower broadcast wavelengths a 25 or 35 turn coil will be found excellent, and for the higher wavelengths 75 or 100 turn coil.

Next, by varying the plate voltage of detecting valve, you will be more than repaid by the stability of the receiver and the purity of reception. Remember that the most sensitive adjustment of coupling between the reaction coil and the grid coil is just that position where the coupling maintains the received oscillations just sufficiently to allow them to die out just before the next group is received. This position is well worth finding, and it can only be obtained by careful experiment with various size coils, coupling, and plate voltages.

Editor's note: Read this article through again. You will learn something different each time you read it. Say you saw it in "Wireless Weekly."

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Consulting Radio Engineer

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26 Jamieson Street,  
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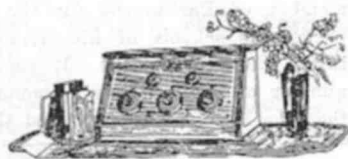
CALIBRATIONS

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# Radio Broadcast Bureau

*Its Work and Propaganda — Striking Publicity Campaign*

By A. W. WATT, Editor, "Wireless Weekly"



I CALLED to-day (Oct. 25) on the Radio Broadcast Bureau to inquire as to the progress of the publicity campaign initiated by the radio interests two and a half months ago.

"Look for yourself," said the Director of the Bureau, Mr. C. C. Faulkner, handing me a big book of newspaper cuttings.

I scanned the contents of the book, commencing with clippings from the country papers to which, Mr. Faulkner informed me, he sends a paragraph or two once or twice a week. Most of the cuttings in this section were repeated many times, the articles having been printed in dozens of country newspapers all over the State. I noted some of the headings—"Radio and Agriculture," "Radio on a Station," "Radio and Surveying," "Radio in the Schools," "Radio and Sheep—Grower makes 5% a head rise," "Church by Radio," "Radio for the Country Press," "Radio on the Farm," "Radio in Hospitals," "Cooking by Radio," "Milking by Radio"—the word "radio" permeated the atmosphere.

In another section of the book labelled "Suburban Newspapers" I found a similar collection. Evidently the Bureau has paid considerable attention to the suburban press. The Director told me that in his opinion the free papers published in the suburbs are a valuable medium for propaganda, as they usually have a large circulation and they find their way right into the home. He found a difficulty, however, in keeping track of the matter published in these papers. Nevertheless, from suburban papers which had reached the office by one means and another the equivalent of six columns of the "Sydney Morning Herald" had been clipped.

I glanced through the articles cut from the weekly and periodical press. The Director informed me that he only sent articles to these papers of the kind likely to interest the readers. For instance, from the "Australian Christian World" and other religious papers there were cuttings of articles headed "Radio in the Church—A Bishop's Advocacy," and an article about a blind man who listens in to the sermon every Sunday. "Country Life" and "The Stock Journal" have published several articles dealing with radio as applied to the man on the land. An article on "Radio and the Press" appeared in the "Australian Journalist," and the "Farmer and Settler" had a half-column article

entitled "Radio Outback—Relieving the Monotony." "The Land" featured an article "A Busy Day—Listening-in to Radio," in which the Director of the Bureau reviewed the various items to be heard on an average day's listening-in.

Among the clippings from the Sydney daily papers I found one in which Lord Burnham, leader of the British Press Delegation, spoke of the world-wide value of radio, particularly in sparsely populated parts of countries like Australia. In the women's column of the "Daily Telegraph" appeared a paragraph stating that a noted French hairdresser would speak on the air about the culture of ladies' hair. I found a half-column review of that thrilling melodrama, the "Green Diamond," put on by 2FC; in the shipping column a paragraph pointing out the value of wireless on tugboats, and in the motor section of the paper an illustrated half-column on portable sets.

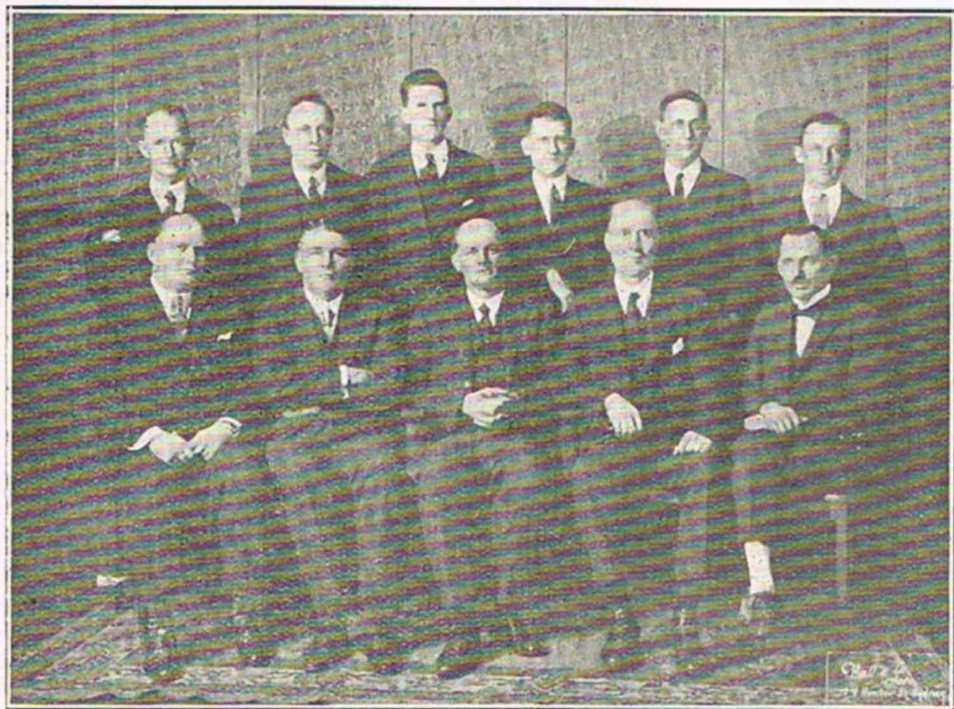
The "Labor Daily" had a column story about the use to which radio can be placed in a mine, together with a picture of the hero being carried on a stretcher among his wounded comrades entombed in the mine to the place where he managed to listen in with his receiving set to the plans of their rescuers. This story, re-written, so Mr. Faulkner informed me, from an American publication, provoked "A Miner's Wife" to write to the "Labor Daily" suggesting that the young men in the mining districts take up the study of radio. In the sporting columns of the "Evening News" I read that racing tips and gossip were to be placed on the air by 2FC every night before the big race meetings. Both the "Sun" and the "News" had a paragraph stating that 2BL, by arrangement with the Radio Broadcast Bureau, were sending out special weather forecasts for the information of the liberators of homing pigeons immediately before their long distance races. The "Guardian" recorded the fact that riflemen were getting the results of the N.R.A.'s big shooting match every evening by radio. And so it went on, to the extent of 3760 inches of newspaper space. If that space is worth on an average 5% an inch as advertising for radio business, it would have cost about £950—apart from all the matter published of which the Bureau cannot keep any record.

I was interested to note the large number of cuttings from country newspapers stating that a

**It's probably your "B" Battery. Get a Philco.**

member of Parliament for the district had written to all the schools of his electorate urging them to instal radio equipment. It seems that there are a number of radio "fans" among our politicians, and that the Bureau has organised them into action, with

list of those country members who have already written:—Bathurst, Mr. Kelly (Labor); Cumberland, Mr. Fitzsimons (Nationalist); Cootamundra, Mr. Main (Country Party); Byron, Mr. Missingham (Country Party); Maitland, Mr. Bennett (Nation-



*The Committee of the Radio Broadcast Bureau meet 2BL.*  
*Front Row: P. H. Pettyfer, W. Harry Wiles (Publicity Sub-Committee), R. Burgin (President of the Bureau), W. J. Wing (Publicity Sub-Committee), W. J. MacLardy (2BL). Back Row: J. Clarke, C. V. Stephenson, W. J. McLelland, G. Saunders (Uncle George), C. C. Faulkner (Director of the Bureau), H. Stuart-Codde.*

the result that in every country electorate a member has been found willing to urge this progressive advance upon the parents and citizens associated with every school in his district. I believe in giving credit where credit is due—and it seems right that readers of the "Wireless Weekly" should know who are their friends among politicians—so I give the

alist); Murray, Mr. Ball (Nationalist); Murrumbidgee, Mr. Best (Nationalist); Namoi, Mr. Chaffey (Nationalist); Oxley, Mr. Vincent (Country Party); Northern Tablelands, Mr. Bruxner (Country Party); Goulburn, Mr. Perkins (Nationalist); Sturt, Mr. Doe (Nationalist); Wammerawa, Mr. Clark (Labor); Wollondilly, Mr. Davies (Labor).

#### PHILLIPS TRANSMITTING VALVES.

Here is a table showing the proper valves to use for different transmitters when using Phillips valves:

Power.	Valve Designation.
5 watts	Z1

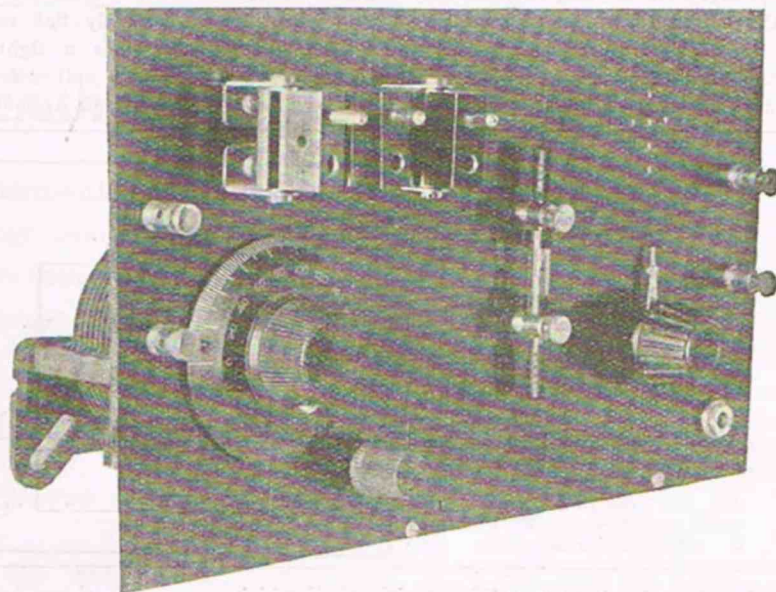
20-30 watts	Z2a and Z2b
100-150 watts	Z3
250 watts	Z4
500 watts	Z5

The first two-way working between Belgium and New Zealand has been carried out by B4YZ, who worked Z2AC.

**Burgess—Power, Harmony, Endurance—Burgess.**

# The Eljayaar Receiver

By "Insulator"



**T**HE Eljayaar is a splendid little receiver. Reflex it certainly is, and employs a crystal detector, too. To those folks who say that valve sets are raucous this particular set must appeal. The purity of the crystal receiver is maintained, and the volume of the valve is present, a combination which personally has always had an appeal. Many folks, on the other hand, are not impressed with a crystal detector, contending that it becomes a nuisance sooner or later. To a certain extent this is true, but provided the correct crystal is used no trouble should in any way be experienced.

I believe I am correct when I say that many people grow from the single valve to the two and three valve per medium of a reflex set. The Eljayaar will be a stepping-stone to them, and one they will always truthfully say fulfilled its mission well.

Within 10 or 12 miles from a broadcasting station moderate loud speaker results will be obtained. This is saying a lot for a single valve, but it has been proved.

Referring to the circuit diagram, the incoming signal is conveyed inductively from L1 to L2, and from thence to the grid of the valve, which amplifies it at radio frequency; regeneration is introduced by L3. From the valve the signals strike the crystal detector, which detects, and the signal is sent along to the primary T1 of the audio frequency transformer T1.T2. This transformer in its ordinary functioning steps up the signal, which leaves T2 and is again impressed on the grid of the valve, this time at audio

frequency. Actually, we have radio, detector, and audio, and yet only one valve is used. This certainly is an economical method of reception, as a moment's thought will convey.

Here is a list of material necessary:—

- 1 Radion or Bakelite Panel, 12 x 7 x 3/16ths.
- 2 Moving de Luxe Panel Plugs.
- 1 Fixed de Luxe Panel Plug.
- 1 .0005 Variable Condenser and Dial.
- 1 Crystal Detector.
- 1 Rheostat to suit your valve.
- 1 Single Circuit Jack.
- 1 Audio Transformer.
- 1 Valve Socket.
- 1 .001 Fixed Mica Condenser.
- 1 100,000 ohms Resistance and Clips.
- 8 Terminals.
- 1 Radion or Bakelite Terminal Strip, 6 x 1 x 3/16ths.
- 1 Baseboard, 10 x 7 x 1/4.
- Busbar, sundry screws, etc.

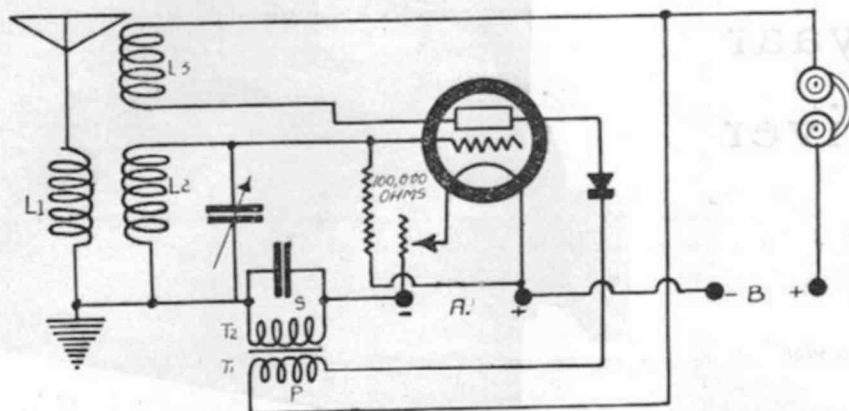
It will be noticed from the illustration that I have used one of the many different types of low loss condensers. This is not absolutely essential, but is, of course, an advantage. The crystal detector is a Grodan Perikon Detector, which makes use of two crystals (zincite and bornite) pressed against one another within a glass tube, no catswhisker being necessary, thereby eliminating the searching for the elusive sensitive spot. Again, the Perikon detector,

**With "Philco" your set will go.**

much favoured in England, is very stable, and is ideally suited for reflex receivers.

One thing I must impress on you is the quality of the audio frequency transformer. A good transformer is essential. There are numbers of excellent

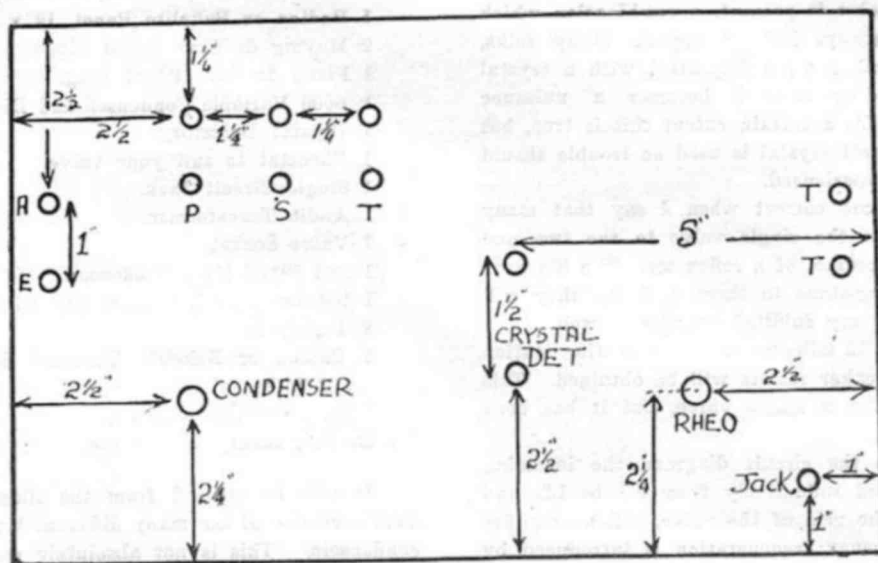
help you in this process. Then lay the panel on a perfectly flat surface, such as a table, and garner together a light hammer, a centre punch—a good, strong nail will do—a rule, and if available a set square or a small carpenter's square.



transformers advertised in "Wireless Weekly" which will give the best results. So much for the apparatus.

The construction of the Eljayaar calls for very little energy, and is really quite easy. However, for

Working from the left edge,  $2\frac{1}{2}$  inches from the bottom and  $2\frac{1}{4}$  inches in, mark the position of the spindle of the variable condenser. Centre punch this mark, and if you have a template for the variable condenser you propose using, centre punch the screw



the benefit of those readers who have never tackled a valve set, I propose to go into detail, and I know the older hands will bear with me in the process.

The first job is to prepare the panel for drilling. See that the edges are trimmed off nicely; a file will

holes now. I'll take it for granted that you intend using the de Luxe type panel mountings for your three coil holder, so mark and centre punch the holes required for the primary coil movable plug. This position is also  $2\frac{1}{2}$  inches from the left, the top hole

**Achievement?—Philco Dynamic!!**

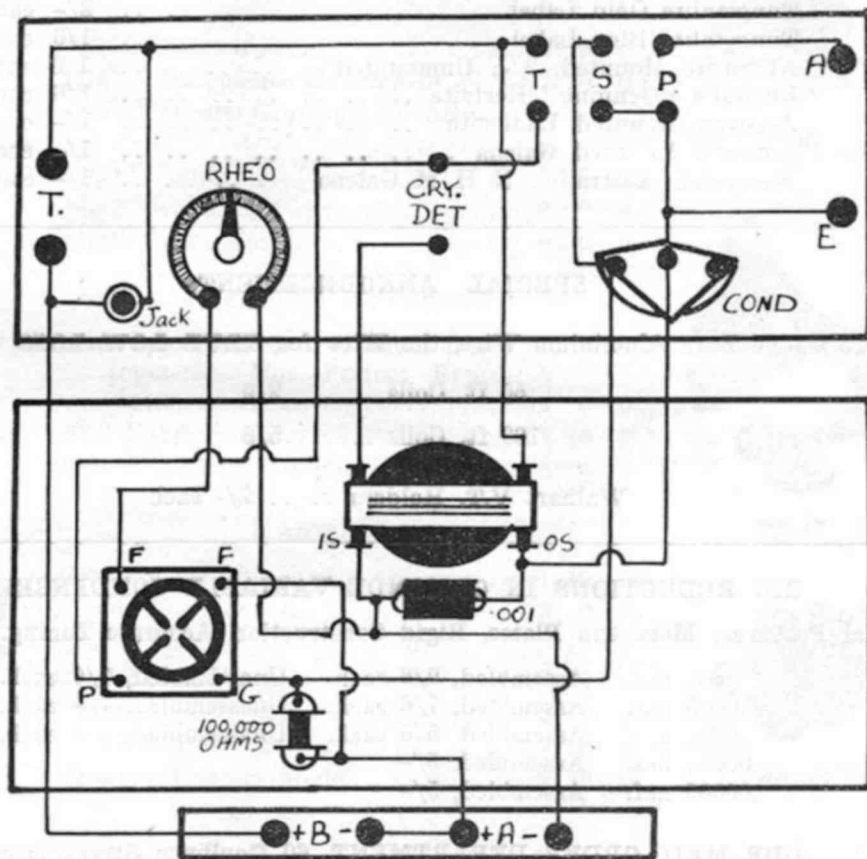


being  $1\frac{1}{2}$  inches from the top and the bottom hole to a further  $\frac{1}{4}$  of an inch lower down. This makes the primary coil come immediately above the centre of the condenser.

The secondary coil fixed plug is situated  $1\frac{1}{2}$  inches to the right of the primary, but this time the holes are only  $\frac{9}{16}$ ths of an inch apart. A further  $1\frac{1}{2}$  inches away to the right is the tickler or reaction coil movable plug, which is accommodated in holes exactly similar to the primary coil. Before leaving this end of the panel make provision for the aerial and earth terminals, say half an inch apart.

bottom, while  $1\frac{1}{2}$  inches above is the top hole. The position for the rheostat will be  $2\frac{1}{2}$  inches from the right and at a height of  $2\frac{1}{2}$  inches from the bottom. If you desire, peep holes may be marked out above the rheostat, and also the positions for the screws to hold the panel to the baseboard.

The drilling can now be proceeded with, care being exercised in this process. The job being completed, mount your components on the panel. Start off with the four terminals, the rheostat next, then your crystal detector, jack and coil plugs, finally the variable condenser. Temporarily place your panel



Now take the rest of the measurements from the right-hand side of the panel. Provide for two terminals for the phones on the level of the aerial and earth terminals. The jack is best placed one inch from the bottom and the same distance from the edge. At  $2\frac{1}{2}$  inches from the bottom and  $2\frac{1}{2}$  inches from the edge mark the position of the centre of your rheostat. If necessary use your template here. The crystal detector is next marked out 5 inches from the right, the bottom hole being  $2\frac{1}{2}$  inches from the

against your baseboard components. I have then as follows:—

Immediately behind the rheostat is the valve socket, approximately  $2\frac{1}{2}$  inches from the panel. Slightly to the right and nearer to the panel with the PRIMARY facing the panel screw down your transformer. Behind this transformer and alongside the valve socket attach the clips necessary for holding the 100,000 ohm resistance. Room should be left to

(Continued on Page 26)

The "New System" Phone is matched in tone.

# The Crystal that Startled the Radio World

The "Lion" Permanent Detector contains the Lion King Combination, employing the great South American semi-transparent rare permanent mineral crystal (Gillenham) and the silver crystal (Tellerurium) discovered in 1923.

Complete, enclosed in Dust and Moisture Proof Detector, large size only . . . 8/6 each

## OTHER FIRST QUALITY CRYSTALS.

Tungstalite Gold Label . . . . .	2/- each
Tungstalite Blue Label . . . . .	1/6 each
Argentite Mounted, 2/-; Unmounted . . . . .	1/6 each
Russell's "Genuine" Hertzite . . . . .	1/6 each
Aerovox Mounted Radiocite . . . . .	1/- each
Aerovox Mounted Galena . . . . .	1/- each
Saerystal, Australite, N H M Galena . . . . .	1/- each

## SPECIAL ANNOUNCEMENT.

16 Gauge Bare Aluminium Wire, the Wire for TRUE LOW LOSS COILS.

50 ft. Coils . . . . 2/9

100 ft. Coils . . . . 5/6

Walnut V.T. Holders . . . . 2/- each

## BIG REDUCTIONS IN ORMONDE VARIABLE CONDENSERS.

Special Features: Metal-end Plates, Rigid Construction, Accurate Tuning.

.001 m.f.	Assembled, 9/6 each.	Unassembled, 7/6 each.
.0005 m.f.	Assembled, 7/6 each.	Unassembled, 7/- each.
.0002 m.f.	Assembled, 5/6 each.	Unassembled, 3/9 each.
.00001 m.f.	Assembled, 5/-	
.00005 m.f.	Assembled, 5/-	

OUR MAIL ORDER DEPARTMENT, 60 Goulburn Street, is under the supervision of Mr. J. H. Wiles, and all details necessary for an efficient Mail Order Service. We despatch with

Open Friday Nights until 9.30 p.m.

Complete parts for all circuits. Advice gratis.

# Wiles' Wonderful Wireless

BRANCH:  
384 PITT STREET  
(near Goulburn Street).

HEAD OFFICE  
56-60 GOULBURN  
(1 door from  
SYDNEY)

# Let All the Family hear the Programme

Connect a Loud Speaker to your Receiving Set and let all the Family hear the programme, and greatly increase the usefulness of your Set as well as add joy to your Radio.

## AMPLION LOUD SPEAKERS.



AR 15

	£	s.	d.
AR102 Dragonfly . . . . .	2	0	0
AR67 Gramophone Attachment. . . . .	3	5	0
AR35 Concert Gramophone Attachment . . . . .	4	0	0
AR114 Junior De Luxe. . . . .	5	5	0
AR19 Dragon. . . . .	8	0	0
AR15 Music Master . . . . .	9	0	0



AR 67

## WESTERN ELECTRIC.

Cone Type. The Latest Radio Development. The Perfect Reproducer . . . . .	14	0	0
4003 Baby . . . . .	1	10	0
4004 Adjustable Diaphragm. . . . .	5	5	0



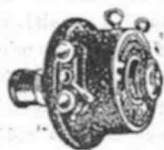
AR 19

## MANHATTAN.

Gramophone Attachment. . . . .	1	10	0
Junior Speaker. . . . .	3	0	0
Senior Speaker. . . . .	6	15	0
Magnavox M4 . . . . .	7	10	0
Puravox . . . . .	8	0	0
Trimm's Home Speaker. . . . .	2	18	0
Trimm's Concert Model . . . . .	7	10	0



AR 114



AR 35

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

Your own set rewired by experts. Satisfaction guaranteed.

Established over 20 years.

# ess & Electrical Stores

AND SHOP:  
RN STREET  
Pitt Street),  
EY.

BRANCH:  
23 PITT STREET  
(near Circular Quay).

*Continued from page 23*

accommodate the terminal board, which, by the way, consists of the 6 inch strip of radion, and which should be drilled for terminals and also for two screws for attaching to the baseboard.

Next wire up. Take from the aerial terminal to the top of the primary coil. Join the bottom pins of the primary and secondary and connect from there to the moving plates of the condenser, and thence to the earth terminal. Wire the top of the secondary to the fixed plates of the condenser, from thence to the grid of the valve socket, joining up one side of the 100,000 resistance en route. From the movable plates of the condenser run to the terminal G or O.S. of the transformer; the terminal F or LS being carried straight on to one side of the rheostat, the other side of which is connected to one of the filament terminals on the valve socket.

The top of the crystal detector is joined to the bottom of the reaction or tickler coil, and is then brought around the back to the plate terminal of the valve. The bottom of the crystal detector is joined to the terminal P or 1P of the transformer, the B positive or OP terminal of which is connected to the top of the reaction coil, which is in turn taken along the top of the panel and is joined to the top phone terminal, and also to one side bottom of the jack. The remaining phone terminal is now soldered to the top of the jack. Across the secondary of the transformer shunt a good quality 001 Mica Dielectric condenser. This is absolutely essential, so don't overlook it. The terminal board is the last job. Looking at the back of panel view the terminals will be found reading from left to right in this order—B positive, B minus, A positive, A minus. The A positive is joined to the B minus, and from then to the remaining side of the 100,000 ohm resistance and to the remaining filament terminal of the valve socket. The A minus is now soldered to the left-hand side (F—) of the secondary of the transformer. The

last connection is between the B positive and the top connection of the jack.

Before testing, go over all your connections with a pair of pliers and a screwdriver to see that all are tight. To ensure that your battery connections are correct, and to eliminate any possibility of burning out your valve, connect your A battery to your B battery terminals, and if the valve lights up you may be sure that something serious is wrong, so go over your wiring and rectify it.

However, let's presume that everything is O.K., so hook on your batteries, insert your valve plug in your earphones, and also coils for the station desired. The list at the end will be of some assistance to you. Keep the primary coil closely coupled to the secondary—that is, keep them together and leave your reaction coil at an angle of, say, 45 degrees. Slowly rotate your condenser until the station is heard, bring your reaction coil a little closer to the secondary, noting if signal strength is increased or decreased. Return slightly on your condenser and touch the crystal detector. Play about for a little while and you will completely master the idea of tuning. Don't be afraid to buy different coils to the suggested list, as this often makes a huge difference.

Using a DV3 De Forest valve at my own home in Dulwich Hill, both 2BL and 2UE came in quite nicely on the speaker. 5CL was clearly audible on the phones—better, in fact, than 3LO, both stations being heard while 2BL was transmitting. The B battery employed was 90 volts.

#### Coils Suggested.

2UE	35	50	75
2BL )			
3LO )	50	50	75
5CL )			
4QG )			
2FC	150	150	150

During the transmission of Sporting Results from 2FC on Saturday, October 31st, dance music will be taken from the Wentworth and in the evening will be transmitted from the King's Hall, the Halloween Concert organised by the Highland Society of N.S.W., the artists will include—The Highland Society's Pipe Band and items by the Society's Choir, humorous numbers: Scotch songs by Miss Jessie Forbes, Mr. Stuart Peters, Mr. James Mackee, Miss Jean Orr and others. At 10.15 p.m. from the Wentworth Cafe will be transmitted the special Halloween Carnival which will continue until midnight.

The morning Service from 2FC on Sunday, November 1st, will be taken from St. Stephen's, Phillip Street, the afternoon service from the Kogarah Methodist Church on the occasion of the Sunday School Anniversary. The evening service from All Saints' Church, Parramatta, commemorating the 100th Anniversary of this historic church. At the conclusion of this service will be transmitted a concert by the Leichhardt Band. At 9.30 p.m. Mr. J. R. Collins, secretary of the Commonwealth Treasury, will deliver a short address from Melbourne on the War Loan. This talk will be brought across by land line and broadcast from 2FC.

With "Philco" your set will go.

## Wireless Enthusiasts!

We submit the undermentioned radio component parts to you. They should be of intense interest, for apart from being of the highest quality procurable—the prices are as low as they could possibly be.

### Low Loss Condensers

Nelslide 21 Plate, max. cap. .0005, min. cap. .000008 . . . . . 32/-

Nelslide 15 Plate, max. cap. .00035, min. cap. .000007 . . . . . 30/-

Dials for the above Condensers, graduated full 360°, numbers 0.200 inclusive . . . . . 6/6

Ediswan, AR06 Valves . . . . . 18/6

Radiotron 201A . . . . . 17/6

Frost 602 Metal Frame Rheostats,  
Price . . . . . 6/-

Loud Speakers: "The Ultra," operates from a 2-Valve Set, excellent value . . . . £2/10/-

We carry large stocks and are able to meet all your requirements.

Write for our specially illustrated catalogue.

Terms arranged if required on Radio Sets.

# Mick Simmons Ltd

THE WORLD'S GREATEST SPORTS STORE  
Headquarters: HAYMARKET, SYDNEY

## 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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# A GOLDEN OPPORTUNITY

## SERVICE FOR COUNTRY READERS

— Stop this Car —

**A** VERY large portion of the heavy mail which reaches us consists of query letters which deal with radio from all conceivable angles. Some of them are simple—some difficult—some involve hours of technical attention—but all of them show clearly that the inquirer is genuinely anxious for knowledge.

A proportion of these queries it would be next to impossible to answer by mail. Often some important point has to be dealt with which would take up many sheets of letter paper, and then perhaps by virtue of their very length would not be too clear to a man who possesses but a limited knowledge of radio.

**FIVE MINUTES' CONVERSATION WOULD MAKE ALL THE DIFFERENCE IN THE WORLD.**

But this is impossible since we are situated miles and miles from many of those who write us.

It is with the intention of giving some of these people the benefit of that five minutes' conversation that we have arranged for Mr. C. W. Slade, of the staff of "Radio" and "Wireless Weekly," to take an extended tour of the country. Mr. Slade leaves Sydney at 9 a.m., on Friday, October 30th in a five seater Citroen car, No. 36-269 N.S.W.

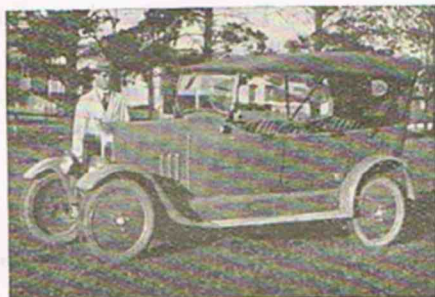
The car will carry a loop aerial mounted on

the bonnet, and on the back a notice will be displayed prominently so that you cannot mistake it.

**NOTE THIS CAREFULLY:**

Whether you are a dealer, an experimenter, or a broadcast listener—whether you have a crystal set or a super heterodyne—if you have a wireless problem troubling you, or you are in need of advice, **YOU CAN STOP THIS CAR ANYWHERE ON THE ROAD** and talk it over with the driver.

The advice or instruction you receive will be given you cheerfully and willingly—it is entirely free and entails no obligation of any kind upon you. This service is simply for your assistance, so take full advantage of it.



"Radio" and "Wireless Weekly" Service Car.



Another view of the car showing the loop mounted on the bonnet. Mr. C. W. Slade, who is making the trip.

Mr. Slade is a fully qualified and certificated radio engineer, and has been engaged professionally in radio for 16 years, 12 of which were spent in the British Navy. He has a very wide experience of Australian radio conditions, and has our fullest confidence—you may rely absolutely upon the accuracy of his information. In addition, Mr. Slade possesses one of those pleasant, likeable personalities, and you will find it a pleasure to talk to him.

If you are anywhere on the route from Sydney to Melbourne, which is outlined below, watch for the Citroen car, 36-269, N.S.W.

Here is the schedule which will be kept to as closely as possible. Departure in all cases will be made at 9 a.m.

First Day, October 30th.—Leave Sydney—Tom Ugly's Point, Sutherland, Heathcote, Waterfall, Bulli, Wollongong, Dapto, Albion Park, Shell Harbour, Kiama, Gerringong, Berry, Nowra.

**Philco Dynamic for less worry and better results.**

Second Day, October 31st. — Leave Nowra — Wandannian, Milton, Ulladulla, Bateman's Bay, Moruya, Bodalla, Narooma.

Third Day, November 1st.—Leave Narooma—Tilba Tilba, Cobargo, Quaama, Bega, Pambula, Eden.

Fourth Day, November 2nd. — Leave Eden — Kiah River, Narabarba, Timbilliga Creek, The Border, Genoa, Karolo Creek, Club Terrace Junction, Sans Souci, Orbost.

Fifth Day, November 3rd. — Leave Orbost — Tostaree, Lakes Entrance, Swan Reach, Bairnsdale, Delvine, Stratford, Sale.

Sixth Day, November 4th. — Leave Sale —

Rosedale, Traralgon, Morwell, Moe, Yarragon, Drouin, Longwarry, Narnaroon, Pakenham Junction, Berwick, Dandenong, Melbourne.

The details of the journey from Melbourne onwards will be announced in "Wireless Weekly" and in "Radio" as soon as possible.

There is another purpose in this trip of Mr. Slade's. Valuable information will be collated by him concerning the types of receivers best suited to certain localities and subsequent issues of "Wireless Weekly" and "Radio" will feature these sets. Mr. Slade will carry a highly efficient receiver with him and this will be used in the course of his investigations.

## A Selective Crystal Set de Luxe

By R. H. HOWELL.

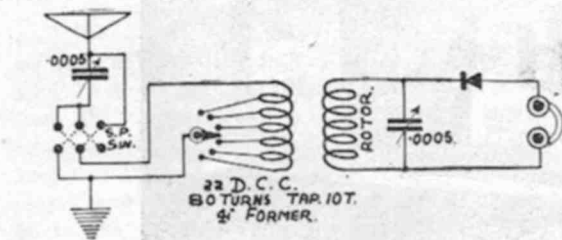
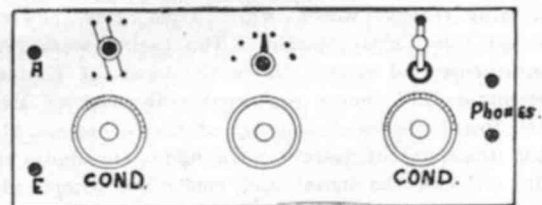
AS my last article on the Howell Reinartz has proved satisfactory as featuring a selective valve circuit, I have decided to devote a little of my time to the crystal enthusiasts. The circuit shown here is not a new one entirely, but it is a set worth owning, giving good volume and selectivity.

As you see by the diagram, we use the old vario-coupler for tuning and the two variable condensers .0005, about 23 plate, and don't forget we have the series parallel switch, which makes the circuit so easy to tune, enabling a change from short to long wavelengths by a mere turn of the switch.

Now, to pass along to the details. A 4in. former—cardboard will do—about 6in. long; give this a coat of thin shellac, then wind 80 turns of 22 D.C.C. and tap at every 10 turns. Next procure an ebonite rotor to fit inside the tubes (rotor 3½in.). On the rotor wind enough 26 D.C.C. wire to fill up each half. Here's a little tip for you. When winding the rotor, start at the bottom or the end, whichever

bly, for the rotor. They can be bought, complete with nuts, springs, washers, etc.

A little more about the rotor. Fill one half of the rotor with wire and pass the wire through the little hole at the top, cutting off the balance of it, so as to leave about two inches through the holes. Now turn the rotor round and continue to wind on the other half, and mind you do so in the same



you prefer to call it, and wind upwards to the centre, keeping each turn tight. Otherwise it is easily possible to wind portion of it in the wrong direction. Now, I nearly forgot the spindles, or shaft assem-

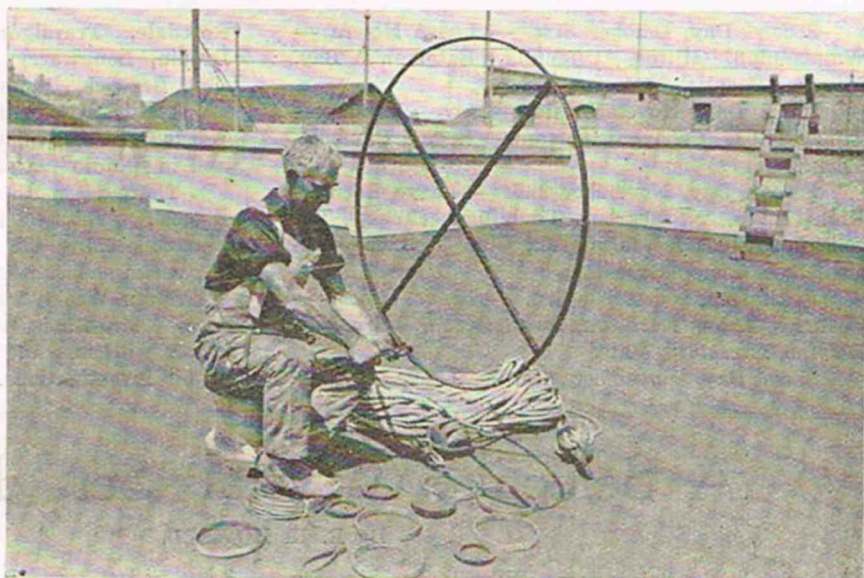
direction as for the first half. Pass the end of the wire through the hole, scrape the covering off with a knife, twist the two together, and solder. The other ends (i.e., the beginnings of the windings) solder to a piece of light flexible wire, pass through the hollow spindle, and connect as shown in the diagram.

Now come back to the primary winding on the 4in. former. About ½in. from the winding on the former make two holes opposite each other, large enough to make a nice fit for the rotor shaft to revolve in. When you have the tuner finished, stand it up behind the panel and bore a hole in the panel, to allow the spindle to protrude so as to take the dial.

What is Philco going to do in Radio?

# The New Sydney Station

Opening Soon



Wiring up the aerial of 2KY on the roof of the Trades Hall, Sydney

WITHIN the next couple of weeks Labour's first broadcasting station, 2KY, will be on the air, and another efficient station will be available for listeners-in.

With a temporary output of 1500 watts, 2KY will operate on a wavelength of 279 metres. Arrangements are in hand for regular broadcast programmes to be put out, and the public may expect something really worth while from this newly-licensed "B" class station. The entire work of manufacture and erection is in the hands of United Distributors Ltd., under the capable direction of Mr. E. G. Beard, the chief engineer of that concern. Already the work of installing an up-to-date studio is well in hand, the aerial and masts are completed, and the fitting up of the transmitting apparatus it-

self is almost completed. The whole of the broadcasting station is located at the Trades Hall, Goulburn Street, Sydney, and it is significant of the outlook of the Trades Unions, under whose control the station will be operated, that practically all the mechanical and electrical gear was manufactured in Australia. Mr. E. R. Voigt, private secretary to the Vice-President of the Legislative Council, was the organiser of the broadcasting scheme for the Trades Hall.

2KY, in addition to the usual musical programme, will broadcast special debates which take place from time to time at the Trades Hall, and for this purpose microphones will be installed in the main halls throughout the building; the public will be given an opportunity of hearing discussions which are carried



The Mast being conveyed to the new Station



on by the Labour Council and by other organisations which meet in the building. It should be noted that in these Trades Hall debates certain points are frequently hotly discussed by various factions, and it is the intention of the executives to invite representatives of other parties to attend on occasions so that the views of all sides may be presented to the listening-in public.

There can be no doubt whatever that such a form of entertainment will prove highly instructive to many listeners-in, especially when it is considered that even at the present time the seating capacity of the main halls is taxed to the fullest extent. The schedule of broadcasting hours laid down is from 3 to 5 p.m. and from 7 to 11 p.m. from Mondays until Saturdays. No broadcasting will take place on Sundays or on public holidays.

It is not intended that 2KY shall attempt to compete with the existing "A" class stations. For one thing, the station being a "B" class, is not entitled to any revenue from the public, and thus would be financially handicapped, but Mr. Voigt stated to our representative that the demands made by the Copyright Association would, in any case, constitute



*Mr. E. G. Beard  
Engineer-in-  
charge of the  
Installation  
of 2KY . .*

an effective bar to competition with "A" class stations.

These demands, stated Mr. Voigt, were out of all reason, and it is interesting to note that the whole question of payment of copyright charges by broadcasting companies will shortly be gone into very fully with the idea of determining whether the action of the Copyright Association in demanding fees constitutes a barrier to the progress of a public utility.

The news service put out by 2KY will be supplied by the "Labor Daily."

## Jottings from 2BL

THE date of 2BL's performance of Mozart's famous opera has been fixed for November 3rd, on which date *The Magic Flute* will be broadcast. The opera is directed by Mr. Henry Penn, and the many fine arias and concerted numbers will be given in a manner worthy of the subject. Mozart composed this opera in 1791 and it has never waned in popularity although the difficulty of the music and the necessity of providing two sopranos of equal merit has made its performance possible only where vocal and instrumental resources are large. The aria of the Queen of the Night is one of the most florid ever written and also one of the most striking. Its demands on the vocal powers of the singer are very great, but when successfully rendered means a real triumph. Another equally famous excerpt is "Within These Holy Portals"—an aria not unknown in Masonic Lodges, where the mystical basis of the opera is perhaps more fully appreciated than elsewhere.

Mr. Horace Keats, well known as the leader of Broadcasters' trio, is also accompanist at studio 2BL and his splendid work at the piano always makes for confidence in the singers. Mr. Keats is imperterbable, knowing that there is not likely

to be anything set before him that his agile fingers cannot achieve, for his sight reading is acknowledged to be a big part in his technical equipment. Many of Broadcasters' artists have expressed their appreciation at the way in which Mr. Keats has assisted them by his accompaniments. He is also responsible for the hearing of trials and plays for all aspirants.

Miss Dulcie Blair has been figuring on 2BL's programme as a violin soloist and her dainty interpretations are eagerly listened to by a wide audience. To her full, luscious tone she adds an authoritative interpretation that is the outcome of long study and fine technique. A product of the local Conservatorium, she is a fine sample of the type of musician being locally trained.

A series of competitions for the children during the bed-time story hour at 2BL threatens to inundate the office with letters, and will probably assist in producing a marked surplus in the postal revenue. Nursery rhymes which have to be recognised, towns which are to be identified by their population and the starting initial, verses to be completed, words with different arrangements of the same letters, all these are part of a big scheme to give even greater popularity to the story hour. Uncles George and Jack are working overtime these days in acknowledging letters, etc.

The official date of opening the new station

"What is a Double Seven?" "The world's best value."

at Coogee is under discussion, as the work is nearing completion. The masts and tower are still exciting attention all over Coogee; guesses at height and dimensions are the subject of bets on tram cars; many people are wondering what the new transmission will be like. It is anticipated that the daylight transmission will be increased enormously, and that crystal reception will be greatly improved. Generally the work of transplanting the transmission gear is under way and by next issue the opening date will be announced.

On Halloween (October 31st), which is the evening proceeding the old festival of All Hallows or All Saints' Day, a special evening programme has been arranged. Many to whom Halloween is a new festival will be curious to know the nature of the celebrations; to those from overseas used to celebrating the occasion there will be a wealth of memories invoked. There will be all the regular features of Halloween on this occasion.

A splendid programme for Armistice Day has been arranged, including addresses on patriotic subjects by distinguished soldiers, martial music, and a commemoration of the Armistice. The unveiling of a special tablet erected by returned soldiers to the women of New South Wales will be broadcast from the vestibule of the Town Hall where the tablet will be. On the evening proceeding Armistice Day (10th November) Mr. Stagg, Secretary of the New South Wales section of the Returned Soldiers' League, will speak from 2BL on the significance of the occasion.

Old time songs, recalling a time now past, will be rendered by Miss Dorrie Ward and Mr. W. E. Lewis. There are many requests for items of this kind and special half-hours of such singing are under arrangement. The melodies of thirty and forty years ago will be heard again and an opportunity for comparison with ultra modern music given.

#### MR. W. J. MACLARDY.

**H**EREWITH we publish a portrait of Mr. W. L. Maclardy, the Managing Director and moving spirit of 2BL, whose activities in the wireless world have resulted in the establishment of Broadcasters (Sydney) Ltd. Mr. Maclardy stated in an interview that his interest in wireless went back to 1898 when he first became seized of the possibilities that radio offered. In 1921 he commenced his connection with the business side of broadcasting, and established "Wireless Weekly"—the first wireless journal in the Southern Hemisphere. This was in November of that year. He was responsible for the flotation of Broadcasters in 1923, the company being floated in August, and transmission started in the following month. The official

*Continued on page 40*

## Six Reasons

WHY THOUSANDS OF LISTENERS, EXPERTS AND MAKERS OF SETS ARE ADOPTING

## True Blue Valves

1. The only Valve free from microphonic noises, and giving a crystal clear tone.
2. Two to three times longer life.
3. Lower Battery consumption.
4. Interchangeably uniform.
5. Sterling silver contacts which cannot corrode.
6. Cheapest in the long run and better all along.



True Blues are sold in Special Safety Cases of 1, 3 & 5

#### QUALITY SELLS THEM.

Don't let them say your set is "like a bad gramophone."

Get True Blue Valves and hear the difference (music instead of microphonic noises).

Cheap Valves are dearest in the long run.

#### FOR REAL RADIO ENJOYMENT, USE TRUE BLUES.

Obtainable at E. R. Cullen's, Wiles', Hordern's, Farmer's, Murdoch's, Swain's, Colville-Moore, Miss Wallace, etc.

Greatly increased sales have enabled a reduction in price of True Blues.

Now everybody can have the best.

If your Dealer cannot supply, write or see us—

**PARSONS & WHITTEMORE LTD.,**

30 Market Street, Sydney.

(Mail orders by V.P. Post. Pay the post-man.)

# Broadcasting



## 4QG

### QUEENSLAND RADIO SERVICE.

Wavelength, 385 Metres.

#### FRIDAY, OCTOBER 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.

**Night Session:** Studio Concert — Albert Hall Recital. The first portion of to-night's programme will be provided in the Studio of 4QG, the second portion will consist of the relaying of the second half of Miss Feo and Miss Millie Todd's Recital from the Albert Hall. 7.55—"Tune-in" Signal. 8—From the Studio. Station 4QG Instrumental Trio, "Spring Flowers" (Wood). Contralto solo, "Thank God for a Garden" (del Riego), Miss Irene Elphinstone. Aeolian Vocalion Selections, Band Numbers: (a) "Officer of the Day" (Hall), (b) "Ambassador March" (Bagley), played by the U.S.A. Seventh Regiment Band. Soprano solo: "E'en as a lovely Flower" (Bridge), Miss Verna Morcom. Station 4QG Instrumental Trio: "Gavotte Piquante" (Pierwan). Contralto solo, "Eyes of Irish Blue" (Lingui), Miss Irene Elphinstone. Aeolian Vocalion Selections, Baritone Solos: (a) "That Old Bush Shanty of Mine" (O'Hagan), Mr. Billie Desmond. Soprano solo, "Goodbye" (Tosti), Miss Verna Morcom. Station 4QG Instrumental Trio, "Cavatina" (Raff). Duo Art Pianola Selection, "Aloha Oe" (by request). 9—From the Albert Hall. The Misses Todd's Recital. Vocal: "Yes now thou art my Spouse" (from "Il Trovatore") (Verdi), Mr. Melville. Pianoforte solos: (a) "The Lost Lamb," (b) "April Showers" (Alwyne), Miss Edna Murray. Two Pianoforte Duet: "Gondoliera" (Reinecke), messrs. Colin Sieman and Ludwig Krause. Pianoforte solo: "Dancing Leaves" (Gibson Butler), Miss Gwen Jones. Duet: "Three Blind Mice" (Holbrook), Miss Doris Valentine and Miss Feo Todd. Vocal: "My Prayer" (Squire), Mrs. Maplestone. Pianoforte solo: "Fantaisie Impromptu Op. 66" (Chopin), Miss Dorothy Gammon. Two pianoforte duet, "Second Arabesque" (Debussy), Miss Ella Briggs and Miss Jean Raymond. Piano solo: "The Romp" (York Bowen), Miss Feo Todd. Two pianoforte duet "March Triomphale" (Gona), Miss Dorothy Gammon and Miss Verle Noble. Pianoforte solo, "Prelude in C Minor"

(Rachmaninoff), Miss Doris Valentine A.T.C.L. Vocal, "Beneath Thy Window" (Di Capua), Mr. Melville. Two pianoforte duet, "Marche Honroise" (Kowalski), Miss Doris Valentine and Miss Feo Todd. From the Studio. "The Daily Mail" News Service. Close down.

#### SATURDAY, OCTOBER 31.

No Midday Session. The Children's Hour. A Children's Bedtime Story Session is held each 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 twice weekly. 6.25—"Tune-in" Signal. 6.30—The Children's Hour. Nursery Rhymes and Music. "The Sandman's" Bedtime Stories. 7.15—Close down.

**Night Session:** St. David's Society Eistedfodd —Lennon's Ballroom. The first portion of to-night's programme will be relayed from the Albert Hall and the second from Lennon's Ballroom. St. David's Society Eistedfodd, relayed from the Albert Hall will be broadcast by 4QG. 7.25—"Tune-in" Signal. 7.30—Address by the Chairman, Mr. T. L. Jones. Female Solo, open, own choice. Adjudications on musical monologue, female solo and Welsh Sentence. Duet, mixed voices, open, own choice. Adjudications on Essay, Duet, Male solo, Welsh Recitation and male solo. Male Quartette, "In absence" (Dudley Buck). Adjudication on Welsh Recitation and Male Quartette. Children's Choral Competition, "Under the Greenwood Tree" (not less than 20 voices). Note.—Mr. E. R. B. Jordan will adjudicate on musical items and the Rev. D. Morgan Jones, M.A., on the Literary and Elocutionary numbers. From Lennon's Ballroom. By courtesy of the proprietors of Lennon's Hotel an hour and a half's programme of dance music played by Miss May Dobbyn's Vice Regal Orchestra in Lennon's Ballroom will be relayed and broadcast by 4QG. 10.30—From the Studio. "The Sunday Mail" News Service. Close down.

#### SUNDAY, NOVEMBER 1

The complete evening service from the Wharf Street Congregational Church will be relayed and broadcast by station 4QG. The Rev. P. Watson, B.A., will include a special children's story prior to the commencement of the service proper. Order of Service. 6.55—"Tune-in" Signal. 7—Mr. Arch. H. West, L.Mus.T.C.L. will play organ number "Lift up your Heads" (Handel-Guillemant). Bedtime story, Rev. P. Watson, B.A. Child's Hymn, "Jesus, Tender Shepherd," Miss Joyce Cox. Organ, "Le Cygne" (Saint-Saens). Violin solo, "Orientale"

Burgess Radio Batteries.

(Cesar Cui), Mr. Eric Hayne. Organ, "Traumerie" (Schumann). Hymn 703, "Day is dying in the West." Invocation and Lord's Prayer. Duet "Love Divine, All Loves Excelling" (Stainer), Miss Nance Smith and Mr. Reg. Best. Scripture, The Book of the Prouhet Isaiah, Chap. lxiv. Violin solo, "Albumblatt" (Gerald Walenn), Mr. Eric Hayne. Notices and Offering. Anthem, "Jerusalem the Golden" (Thompson). Prayer. Hymn 51, "The King of Love my Shepherd Is." Sermon, "The Hidden Splendour," Preacher: Rev. P. Watson, B.A. Hymn 610, "The Day Thou Gavest." Benediction. Vesper. Close down.

#### MONDAY, NOVEMBER 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.

**Night Session:** 7.55—"Tune-in" Signal. 8—From the Tivoli Theatre. By courtesy of the Directors of Haymarket Theatres Ltd., the overture played by the Tivoli Operatic Orchestra of 20 performers under the baton of Mr. C. Groves, will be relayed from the Tivoli Theatre. 9.10—From the Studio. Popular Concert featuring Station 4QG instrumentalists, Mrs. Robert Bell (soprano), Miss Ruth Portrate (soprano), Mrs. Robert Bell and Miss Ruth Portrate (duets). 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, NOVEMBER 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 Bureau; "Daily Standard" News Service. Close down.

**Afternoon Session:** 2.55—"Tune-in" Signal. 3—By courtesy of the Directors of Haymarket Theatres Limited, 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 and broadcast by 4QG. 4—Close down.

#### CHILDREN'S HOUR.

A special Children's Bedtime Story Session is held each Wednesday and Saturday evening. At a later date this session will be made a nightly feature, but in the immediate present, while the transmission is being effected under temporary conditions, it will be held twice weekly. 6.25—"Tune-in" Signal. 6.30—"The Children's Hour." Nursery Rhymes and Music. "Little Miss Brisbane's" Bedtime Stories. 7.15—Close down.

**Night Session:** Studio Concert. From the Studio of 4QG, Popular Concert, Station 4QG instrumentalists, Mr. Gerald Cashman (baritone), Miss Brenda Jameson (contralto), Miss May Kingsbury (soprano), Mrs. Eric Job (contralto).

#### THURSDAY, NOVEMBER 5.

**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:** From the Studio. A special entertainment by Mr. Chas. O'Mara and Miss Anna Burke.

## 2BL

### BROADCASTERS (SYDNEY) LTD. SERVICE.

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#### FRIDAY, OCTOBER 30.

**Afternoon Session:** 3—G.P.O. Clock and Chimes. Weather Report and Social Notes. 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 Scarlet Circle." 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "The 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—Uncle George 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:** 8—Popular Programme including Mr. Clyde Thorpe, violinist; Miss Jean Stones, soprano; and Mr. Arthur Mayes, basso. At 9 p.m. Mr. H. C. Morgan will talk on "Motoring." 10 p.m. "Round the World Travelogue" by Mr. J. M. Prentice.

#### SATURDAY, OCTOBER 31.

**Afternoon Session:** 2—G.P.O. Clock and Chimes. Special Sporting Programme by Courtesy of the Sun Newspapers Ltd. 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—Uncle George and the Kiddies. 7.45—A Talk on "Roads."

**Evening Session:** 8—Hoyt's Imperial Orchestra under the direction of Mr. Lionel Hart. The Ambassadors Combined Orchestra under the direction of Mr. Charles Aves; Mr. Stanley Catlett, Sydney's popular Tenor; Miss Nora Mack, soprano. Dance Music broadcast until mid-night from the Dugowan, Manly, under the direction of Mr. C. J. Little.

#### SUNDAY, NOVEMBER 1.

11 a.m. Service broadcast from Croydon Park Methodist Church. 2.30 p.m.—Children's Demonstration broadcast from the City Mission Hall, Glebe. 7.15—Balmain Central Methodist Church. From the Studio: Broadcasters Trio; Miss Millie Hughes, soprano and other well known vocalists.

#### MONDAY, NOVEMBER 2.

**Afternoon Session:** 3—G.P.O. Clock and Chimes. Weather Reports and Social Notes. 3.15—David Jones' Tea Room Trio. 3.30—G.P.O. Clock and Chimes. A Talk on "A course in English Literature." 3.45—Music from the Studio. 4—G.P.O. Clock and Chimes. David Jones' Tea Room Trio. 4.15—Music from the Studio. 4.30—G.P.O. Clock and Chimes. Serial Story entitled "The Scarlet Circle." 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "The 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—Uncle George and the Kiddies. 7.30—"What's On," a guide to citizens and visitors of Sydney. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: 8—The Ambassadors Salon Quartette under the direction of Mr. Claude McGlynn. From the Studio, well known vocalists including Miss Florence Yates, contralto. Dance Music broadcast from the Ambassadors under the direction of Mr. Charles Aves until mid-night. During the evening the following talks will be delivered:—8.30—Mr. Norman Campbell, on "Plays and Players, Past and Present" and at 9.30, Miss H. G. Hirst will talk on "The Art of Pottery."

#### TUESDAY, NOVEMBER 3.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes. 3.15—Music from the Studio. 3.30—Operatic Session. 4—G.P.O. Clock and Chimes. Music from the Studio. 4.30—G.P.O. Clock and Chimes. Serial Story en-

titled "The Scarlet Circle." 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "The 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—Uncle George and the Kiddies. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: 8—Mozart's delightful Opera, "The Magic Flute" directed by Mr. Henry Penn.

#### WEDNESDAY, NOVEMBER 4.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes. 3.15—Music from the Studio. 3.30—G.P.O. Clock and Chimes. A Talk on "The Musical Outlook." 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 Scarlet Circle." 4.45—Music from the Studio. 4.55—Late Market

*Programme continued on page 38*

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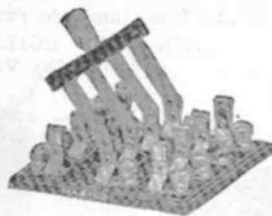
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## Esperanto News

### BROADCASTS IN AUSTRALIA.

THE first radio station in Australia to introduce Esperanto in its programme was 6WF. In September, 1924, Miss Martha L. Root, a relative of Senator Elihu Root, the great American statesman, gave an address at Stott's Business College, Perth, of her experiences with Esperanto on her extensive world tours. Possessing a reputation as an experienced voyageur of no mean literary ability, Miss Root had no difficulty in having her lecture broadcast, and this constituted the pioneer move in the Commonwealth.

Passing through Melbourne a few weeks later, Miss Root "broke the ice" at 3AR, and when in this city 2BL gave her twenty minutes to discourse on "Esperanto as a Universal Language." The seed was laid; results were to follow.

Shortly afterwards 3AR conceived the idea of making Esperanto a regular item, and enlisting the services of a well-known local Esperantist, Mr. R. R. Rawson, fortnightly talks, illustrated by songs and dialogues, were given.

Then 3LO appeared in the broadcasting field, and lectures were transmitted from this station at regular intervals. After suffering an interruption of a few months these talks have now been resumed, and on the first Saturday in each month Esperanto issues forth on its mission of "Komprene unu la alian" (understand one another).

Sydney, with the most prominent stations of all, was very tardy in introducing the international language, but eventually in June a series of lectures was commenced by 2FC, the speaker being Mr. Leslie Pfahl, secretary of the Esperanto Society. That these talks are appreciated may be judged from the fact that eulogistic letters have been received from all parts of the Commonwealth, Fiji, and New Zealand.

### MORE ESPERANTO FROM 2FC.

Listeners-in are advised that the next "Esperanto Talks" are scheduled for 29th October and 12th November. Both will be in English and commence at 7.45 p.m.

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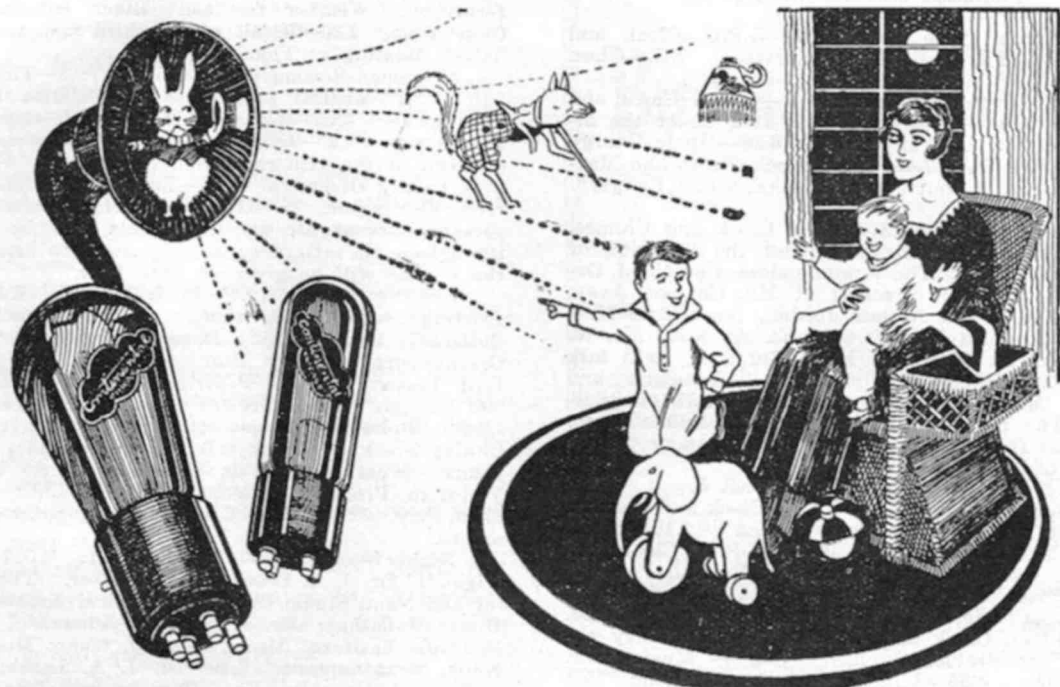
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# Continental

## Programme Continued from page 35

Reports from "The Sun." 5.—G.P.O. Clock and Chimes. "The 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—Uncle George and the Kiddies. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: 8—G.P.O. Clock and Chimes. Hoyt's Imperial Orchestra, under the direction of Mr. Lionel Hart; The Ambassadors Combined Orchestra under the direction of Mr. Charles Aves; From Studio, Mr. Arthur Jordan, tenor, and Miss Pauline Harford Foster, soprano. At 8.30, Mr. N. G. McWilliam (Sydney's Blind Barrister) will talk on "Co-operation and Community Settlement" and at 9.30, Mr. A. T. Keeble, B.Sc., will talk on "Sulphur: The basis of Manufacture." Dance music broadcast from the Dungowan, Manly, under the direction of Mr. C. J. Little.

## THURSDAY, NOVEMBER 5.

Afternoon Session: 3—G.P.O. Clock and Chimes. Weather Report and Social Notes. 3.15—David Jones' Tea Room Trio. 3.30—G.P.O. Clock and Chimes. A Talk on "Studies in English Poetry." 3.45—Music from the Studio. 4—David Jones' Tea Room Trio. 4.15—Music from the Studio. 4.30—G.P.O. Clock and Chimes. Serial Story entitled "The Scarlet Circle." 4.45—Music from the Studio. 4.55—Late Market Reports from "The Sun." 5—G.P.O. Clock and Chimes. "The 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—Uncle George and the Kiddies. 7.45—Late Stock, Hides and Market Reports by courtesy of Pitt, Son and Badgery. 7.50—Close down.

Evening Session: 8—An Old Time Song Evening. Miss Dorie Ward, mezzo soprano and Mr. W. E. Lewis, baritone. At 8.30, Mr. F. A. Robertson will deliver a lecture and at 9.30, Mr. W. Paterson will talk on "The Care of the Eyes." Dance music broadcast from the Ambassadors under the direction of Mr. Charles Aves, until mid-night.

## 3LO

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## SATURDAY, OCTOBER 31.

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—Results of the first race from the V.R.C. Meeting at Flemington. 1.5—Buckley and Nunn Studio Orchestra. 1.40—Result of the second race at Flemington. 1.45—"Herald"

and "Argus" news services. Stock Exchange information. Weather forecast. River reports. 2—Close down. 2.30—Result of the third race from the V.R.C. Meeting at Flemington.

Afternoon Session (3 to 5.15 p.m.): 3—Time Signal. 3.1—Musical programme by Griffiths Family Orchestra. 3.15—Result of the fourth race from Flemington. 3.20—Griffiths Family Orchestra. 3.55—Result of the fifth race from Flemington. 4—Griffiths Family Orchestra. 4.35—Result of the last race from Flemington. 5—All the sporting results. Progress results of all sporting events will be given throughout the afternoon as they come to hand, and the resume will be given at each hour.

Evening Session (5.45 to 7.15 p.m.): 5.45—All sporting results, local, country and interstate. 6—Children's Hour. "Billy Bunny" stories by "Lady Greensleeves"; "Wry Face and One-Eye," "The Last Lesson." 6.45—Sporting results. "Herald" and "Argus" news services. Reuter's and the Australian Press Association cables. Market reports. Closing Stock Exchange information. Shipping movements. Weather synopsis. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.40 to 11 p.m.): "Old Time Night." Dr. J. A. Leach, D.Sc., speaker. The Buckley and Nunn Studio Orchestra (musical director, Miss Bessie Gaunson); Mr. Allan Bell, humorist; Mr. J. Donovan, baritone; Mr. J. Delaney, tenor; Miss Jean Kelly, mezzo-soprano. 7.40—Dr. J. A. Leach, D.Sc., "Birds of Australia—Tree Runners and Tree Creepers." 8—The Buckley and Nunn Studio Orchestra, waltz, "Blue Danube" (Strauss). 8.10—Mr. J. Delaney, tenor, "Good Company." 8.13—The Buckley and Nunn Studio Orchestra, quadrilles, "Bonnie Dundee" (D'Albert). 8.28—Mr. Allan Bell, humorist, "The Man who Broke the Bank at Monte Carlo" (Leggett). 8.32—The Buckley and Nunn Studio Orchestra, schottische, "Rainbow" (Kleber). 8.42—Miss Jean Kelly, mezzo-soprano, "Ben Bolt" (Old Eng.). 8.46—The Buckley and Nunn Studio Orchestra, waltz, "Il Bacio" (Arditti). 8.56—Mr. J. Donovan, baritone, "Sons of the Sea" (McClellan). 9—The Buckley and Nunn Studio Orchestra, polka, "Drum Major" (Burns). 9.10—Mr. J. Delaney, tenor, "Sally in our Alley" (Carey). 9.14—The Buckley and Nunn Studio Orchestra, "Alberts Quadrille" (arr. Moffat). 9.29—Mr. Allan Bell, humorist, "Woolloomooloo" (Rule). 9.33—The Buckley and Nunn Studio Orchestra, mazurka, "La Gracieuse." 9.43—Miss Jean Kelly, mezzo-soprano, "Remember me no more." 9.47—"Argus" news. 9.51—The Buckley and Nunn Studio Orchestra, waltz, "Donau Wellen" (Ivanovici). 10.1—Mr. J. Donovan, baritone, "Queen of the Earth" (Pinsuti). 10.5—The Buckley and Nunn Studio Orchestra, lancers, "Imperial Lancers" (Frost). 10.20—Mr. J. Delaney, tenor, "Mona" (Adams). 10.24—Buckley and Nunn Studio Orchestra, barn dance, "Old Kentucky." 10.34—Mr. Allan Bell, humorist, "Waiting at the Church" (Pether). 10.38—Buckley and Nunn Studio Orchestra, schottische, "Highland Schottische." 10.48—Miss Jean Kelly, mezzo-soprano, "Gretchen." 10.52—Buckley and Nunn Studio Orchestra, waltz, "Boating on the Danube" (Burns). 11.2—Mr. Allan Bell, humorist, "Down by the Old Bull and Bush" (Von Tiltzler). 11.6—The Buckley and Nunn Studio

Burgess—Ask Any Radio Engineer.



Orchestra, "Royal Irish Quadrilles" (Jullien). 11.21—"Auld Lang Syne." "God Save the King."

## SUNDAY, NOVEMBER 1.

Morning Session (11 a.m. to 12.15 p.m.): 11—Service relayed from the Wesley Church Central Mission, conducted by Rev. J. H. Cain. Doxology; brief prayer; hymn, "O Worship the King"; prayer, Lord's Prayer chanted; hymn, "Was there ever kindest Shepherd?"; solo, Mr. Ben Moy Ling; Scripture reading, St. John, 14 chapt.; anthem; notices and intimations; offertory, organ solo, Mr. W. James; children's hymn, "Gentle Jesus, meek and mild"; sermon, Rev. J. H. Cain; brief prayer; hymn, "Hark, my soul, it is the Lord"; Benediction.

Afternoon Session (3 to 4.30 p.m.): 3—Service from the Wesley Church Central Mission, Pleasant Sunday Afternoon Service; chairman, Rev. S. J. Hoban. Orchestral selection (conductor, Mr. G. M. Williams); hymn, "Hail, Thou once despised Jesus"; prayer, Rev. J. H. Cain; hymn, "God bless our native land"; the Auburn Male Quartette Party, "Holy Night"; orchestral selection; the Auburn Male Quartette Party, "Let the lower lights be burning"; announcements and collection; orchestral selection; address, Mr. E. W. Greenwood, M.L.A., "The Totalisator Menace"; National Anthem; Benediction; orchestral selection.

Evening Session (6 to 6.45 p.m.): 6—Children's Hour. "Billy Bunny" stories, "Pilgrim's Progress." 6.45—Close down.

Night Session (7 to 10 p.m.): Evening Service from Scots' Church, conducted by Rev. W. Borland, M.A., B.D.; organist and musical director, Mr. Mansley Greer. Special Masonic Service arranged for Heather Lodge, No. 369, the Worshipful Master and the Chaplain of the Lodge taking part. 7—Hymn, "Thou, Whose Almighty Word"; prayer, Psalm (Metrical) 133, "Behold how good"; lesson, I Kings, 7/13-22; Psalms (Prose) 121 and 122; prayer of intercession; lesson, I Corinthians 13; anthem, "Light of the World" (Elgar); the Lord's Prayer; sermon, "Brotherly Love"; hymn 454, "The Church's One Foundation"; offering; hymn 297, "Lead, Kindly Light"; "The Hallelujah Chorus"; Benediction. From the Studio: Speaker, The Right Hon. W. A. Watt, M.H.R. The British Musical Society's Quartet (Alberto Zelman, Bertha Jorgensen, Tasma Tiernan, Dorothy Roxburgh); Mr. J. Castle Harris, baritone, of "Wildflower"; Mr. Harold Rodgers, accompanist. 8.30—The British Musical Society's Quartet, "Quartet in E flat" (Dittersdorf), for 1st and 2nd violin, viola, and cello, in four movements—1st movement, "Allegro"; 2nd movement, "Andante"; 3rd movement, "Minuet"; 4th movement, "Allegro Vivace." 8.50—Mr. J. Castle Harris, baritone, by permission of J. C. Williamson Ltd., "Maushla" (Rowe), "Melisande in the Wood" (Clifford). 8.57—Mr. Harold Rodgers, pianoforte solos, "Bird of Paradise at a Waterfall" (Nienmann), "In a Chinese City" (Nienmann). 9.2—The Right Hon. W. A. Watt, "Australia and its Possibilities." 9.22—Mr. Harold Rodgers, pianoforte solos, "Golliwogs Cake Walk" (Debussy), "Gopak" (a Russian Folk Dance) (Moszkowski). 9.27—The British Musical Society's Quartet, "Quartet in D major" (Haydn) for 1st and 2nd violins, viola and cello, in four movements—1st movement, Allegretto leading into Allegro; 2nd movement, Largo, cantabile e mesto; 3rd movement, Minuet; 4th movement,

Presto. 9.47—"Argus" and "Herald" news services. 9.50—"God Save the King."

## MONDAY, NOVEMBER 2.

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—Musical items by the Buckley and Nunn Studio Orchestra. 12.30—"Argus" and "Herald" news services. 12.45—Buckley and Nunn Studio Orchestra. 1—Time Signal. 1.2—Buckley and Nunn Studio Orchestra. 1.45—"Herald" and "Argus" news services. Reuter's and the Australian Press Association cables. 2—Close down. The results of the trotting races at Richmond will be announced at the conclusion of each race.

Afternoon Session (3 to 5.15 p.m.): 3—Time Signal. 3.2—Musical items by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco. 3.40—Matron Moreland will speak on "Infant Welfare." 3.55—Musical items by the Paramount Theatre Orchestra. 5—"Herald" and "Argus" news services. 5.15—Close down. During the afternoon the results of the trotting races at Richmond will be given at the conclusion of each race.

Evening Session (6 to 7.15 p.m.): 6—Children's Hour. "Billy Bunny" stories: "Nursery Rhymes," "Little Ragged Blossom," "The Stone Axe of Burkamuk." 6.45—"Herald" and "Argus" news services. Reuter's and the Australian Press Association cables. Market reports. Weather synopsis. Closing Stock Exchange information. Shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sales, poultry, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.15 to 11 p.m.): "A Night at the Studio." The Buckley and Nunn Studio Orchestra (musical director, Miss Bessie Gaunson); Mr. Walter Smith, cornet; Miss Tasma Tiernan, cello; Miss Dorothy Roxburgh, viola; Miss Agnes Fortune, piano. Miss Jessie Shmith, contralto; Mr. Charles Pope, colored comedy koon; Miss Doris McInnes, soprano; Miss Wish Wynne and Mr. Bernard Kitchen. Speakers: Mr. C. R. Long, M.A., Mr. T. P. Court, Mr. Frank A. Russell. 7.15—Mr. C. R. Long, M.A., "The Romance of Australian History, Part III—The Digging Days." 7.30—Mr. T. P. Court, Technical Adviser to "The Listener In," wireless talk—"Detection: Function of the crystal and completion of the crystal set circuit, including telephone." 7.45—Mr. W. P. Priestley, "Musket" of "Sporting Globe," "The Melbourne Cup." 8—The Buckley and Nunn Studio Orchestra, "Lucia de Lammermoor" (Donizetti). 8.15—Miss Jessie Shmith, contralto, "A Request" (Finden), "Rosebud" (Drummond). 8.22—Miss Tasma Tiernan, cello solo, "Lullaby" (Scott), "Largo" (Handel). 8.32—Mr. Charles Pope colored comedy koon "The Shiek," "Silver Threads." 8.40—Mr. G. S. Brown, "Kissing Cup's Last Race." 8.59—Miss Doris McInnes, soprano, "Carissima" (Penn), "I Passed by Your Window" (Brahe). 9.6—Mr. Frank A. Russell, "Out of the Hurly-Burly." 9.21—The Buckley and Nunn Studio Orchestra, "La Macon" (Auber). 9.37—Miss Wish Wynne and Mr. Bernard Kitchen in selections from a repertoire written and composed by Miss Wish Wynne, "A Cinema Enthusiast," "Educated Elsie," "The Char-

(Programme Continued on Page 42)



## 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 we 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'

*Continued from page 32*

opening of the station, however, did not occur until December, 1923. Since that time the service has been maintained without a single break of more than a few hours, and until very recently 2BL presented the longest service of any station in the world. Steadily advancing in public favor, this station has become a feature of the wireless life of not only Australia, but also New Zealand and the Pacific Islands.

Mr. Maclardy is keen to the last degree and foresees a wonderful future for wireless generally as an educative medium as well as for purposes of entertainment. Possessing abundant energy he is unsparing and tireless in his efforts to elevate and improve programmes, transmission and every phase of wireless. As Mr. Maclardy has a wide know-



ledge of the technical side of the subject, he is able to assist and maintain the station at a high level of efficiency.

In the course of conversation Mr. Maclardy forecasted the future of wireless. Within ten years he believes that it will be possible for listeners-in to sit at home and see as well as hear artists. The efficiency of low wave lengths holds many possibilities and future transmission is likely to be below 100 metres. This is likely to ensure two great improvements—increased distance of transmission and less atmospheric interference. And it may be added that it is the keenness of such enthusiasts as Mr. Maclardy that makes many things possible.

# 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 201.A 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.



## Programme continued from page 39

woman," "A London Factory Girl." 9.52—Mr. Walter Smith, cornet solo, "Arbucklenian Polka" (Hartmann). 10.1—Miss Jessie Shmith, contralto, "Boat Song" (Drummond), "Danny Boy" (Weatherley). 10.8—"Argus" and "Herald" news services. 10.11—Mr. Frank A. Russell, "The Play's the Thing." 10.26—Mr. Charles Pope, colored komedy koon, "Everyone was Meant for Someone," "Farewell, Marguerite." 10.33—Miss Bessie Gaunson, violin solo, "Chanson Louis XIII." (Couperin-Kreiser), "Obertass Mazurka" (Wieniawski). 10.40—Miss Doris McInnes, soprano, "One Fine Day"—"Boheme," "I Love the Moon." 10.47—The Buckley and Nunn Studio Orchestra, "Ruy Blas" (Mendelssohn). 11—"God Save the King."

## TUESDAY, NOVEMBER 3.

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. 1.1—Result of the Cup Hurdle Race from the V.R.C. Meeting at Flemington. 1.3—Buckley and Nunn Studio Orchestra. 1.40—Result of the Railway High Weight Handicap from the V.R.C. Meeting at Flemington. 1.45—"Herald" and "Argus" news services. Weather forecast. Stock Exchange information. River reports. 2—Close down. 2.40—Result of the November Nursery from the V.R.C. Meeting at Flemington.

Afternoon Session (3 to 5.15 p.m.): 3—Time Signal. 3.2—Musical items by the Paramount Theatre Orchestra, under the baton of Signor Vincent Rieco. 3.30—Result of the Melbourne Cup from the V.R.C. Meeting at Flemington. 3.33—Musical items by the Paramount Theatre Orchestra. 3.40—"Au Fait," of Buckley and Nunn Ltd., will discuss latest modes in a "Fashion Talk." 3.55—Musical items by the Paramount Theatre Orchestra. 4.20—Result of the Cup Steeplechase from the V.R.C. Meeting at Flemington. 4.23—Musical items by the Paramount Theatre Orchestra. 4.50—Miss Flora Pell, Supervisor of Domestic Arts, Education Department, in a talk on "Domestic Economy." 5—Result of the Yan Yean Stakes from the V.R.C. Meeting at Flemington. Sporting results. "Herald" and "Argus" news services. 5.15—Close down.

Evening Session (6 to 7.15 p.m.): 6—Children's Hour: "Billy Bunny" stories by "Little Miss Kookaburra," who will remember some little nursery rhymes for the little tots and third instalment of "The Plucky Patrol." 6.45—"Herald" and "Argus" news services. Reuter's and the Australian Press Association cables. Market reports. Weather synopsis. Closing Stock Exchange information. Shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sheep sales, poultry, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.15 to 11 p.m.): "Scotch College Night." Speakers: Mr. H. J. Stephens, Professor Lodewyckx, M.A., D.Litt., Mr. W. S. Littlejohn, M.A., Scotch College, Dr. Loftus Hills, D.Sc., Mr. W. Priestley ("Musket"). Scotch College, Hawthorn, Foundation Day Concert. Miss Annie Cadell,

Mr. Guy Moore, Miss Mary Mack, Mr. Clement May, The College Boys. Miss Wish Wynne and Mr. Bernard Kitchen; Mr. Russell Callow, tenor; Miss Agnes Fortune, pianist. 7.15—Under the auspices of the New Settlers' League, Mr. H. J. Stephens, "The Country Newspaper." 7.30—University Extension Lecture, Associate Professor Lodewyckx, M.A., D.Litt., Lecturer in German, Melbourne University, "Nationalism in Europe after the War." 7.45—Mr. W. S. Littlejohn, M.A., Headmaster Scotch College, "Scotch College and its Traditions." 8—The Scotch College Foundation Day Concert transmitted from Auditorium Theatre: Overture, Orchestral; song, "College Anthem," Boys; song, Miss Annie Cadell, 1 "O Lovely Night" (L. Ronald), 2 "Sing, Sing, Blackbird"; song, "The King's Way" (Elgar), the Boys; song, Mr. Guy Moore, "I Hear a Thrush at Eve" (Cadman); song, "Ye Banks and Braes," the Boys; "March of Cameron Men," the Boys. Interval. 9.15 approx.—Dr. Loftus Hills, D.Sc., "Popular Science." From the Auditorium: Scotch College Concert continued—Selection, Orchestral; song, "Oh, Hear the Echo," the Boys (tune, "Dear Halls, Mrs. Peterson); song, Miss Mary Mack, "The Crown of the Year" (E. Martin); song, "Golden Vanitee" (sea chanty), the Boys; recital, Mr. Clement May; song, "Soldiers' Chorus" from "Faust," the Boys. 10.15 approx.—From the Studio: Mr. W. Priestley, "Musket" of "The Sporting Globe" on "The Melbourne Cup." 10.30—Miss Wish Wynne in selections of her own compositions, accompanied by Mr. Bernard Kitchen, "Told Off Proper," "Exit Muriel," "Er Upstairs." 10.45—"Argus" and "Herald" news services. 10.48—Mr. Russell Callow, tenor, "Dreams of Long Ago" (Caruso), "Ombra Mai Fu" (Handel). 10.55—Miss Agnes Fortune, pianoforte solo, "Barcarolle" (Rubinstein). 11—"God Save the King."

## WEDNESDAY, NOVEMBER 4.

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. Stock Exchange information. Weather forecast. River reports. 2—Close down. The results of the Ascot pony races will be given immediately at the conclusion of each race.

Afternoon Session (3 to 5.45 p.m.): 3—Time Signal. 3.2—Musical programme by the Paramount Theatre Orchestra, under the baton of Signor Vincent Rieco. 4.30—Sister Peck, of the Victorian Baby Health Centres Association, will speak on "Mothercraft." 4.45—Choral Evensong from St. Paul's Cathedral. 5.30—"Herald" and "Argus" news services. Sporting results. The results of the Ascot pony races will be given throughout the afternoon at the conclusion of each race.

Evening Session (6 to 7.15 p.m.): 6—Children's Hour. "Billy Bunny" stories: "Nursery Rhymes," "Little Ragged Blossom," "The Stone Axe of Burkamuk." 6.45—"Herald" and "Argus" news services. Sporting results. Reuter's and the Australian Press Association cable news. Market reports. Weather synopsis. Closing Stock Exchange informa-

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tion. Shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Newmarket sales, cattle, pigs, carcass meat, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.15 to 11 p.m.): "Our Welsh Night." Speakers: Mr. J. G. Lee, Mr. H. Barkley, Mr. P. W. Pearce, Captain C. H. Peters. Gladys Monerieff in "The Street Singer." The Buckley and Nunn Studio Orchestra (musical director, Miss Bessie Gaunson). The Cambrian Glee Party; Madame Turner, soprano; Mr. Eric Jones, basso; Mr. Owen Griffith, tenor; Mr. W. J. Jenkins, baritone; Miss Iris Turner, soprano. 7.15—Mr. J. G. Lee, Railways Superintendent, Gippsland, "Some Sidelights on the Management of Your Railways." 7.30—Mr. H. Barkley, of the Meteorological Bureau, "Humors of Weather Work." 7.45—Mr. P. W. Pearce, "Physical Culture." 8—Time Signal. Miss Gladys Monerieff in the first act of "The Street Singer," transmitted from the Theatre Royal by permission of J. C. Williamson Ltd. Overture and opening music by the orchestra; song, "A Perfect Little Lady," Mabel Gibson and chorus ladies; chorus of men, "Oh, Grief and Woe"; song and chorus, "Take Life as it Comes," Noel Leyland and chorus gentlemen; song, "Heart's Desire," Gladys Monerieff; trio, "Fortune has Smiled," Noel Leyland, Gladys Monerieff, and Leslie Holland; song, "Follow Yvette," Gladys Monerieff and company; finale. 8.56—From the Studio, Captain C. H. Peters, "Books, Wise and Otherwise." 9.13—The Buckley and Nunn Studio Orchestra, "Reminiscences of Wales" (Godfrey). 9.28—The Cambrian Glee Party, chorus, "The Cambrian Plume" (Richards), "Bryn Calfarra" (Owen). 9.36—Madame Turner, soprano, "Y Deryn Pur" (Songs of Wales). 9.40—Mr. Walter Smith, cornet solo, "The Blackbird" (Richards). 9.48—Mr. Eric Jones, basso, "Pagan" (Lohr), "The Song of the Rover" (Georges). 9.55—The Buckley and Nunn Studio Orchestra, "Llwyn On" (Godfrey). 10.11—"Argus" and "Herald" news services. 10.15—Mr. Owen Griffith, tenor, "Gwlad y Delyn" (Davies), "Y Fam ai Baban" (Songs of Wales). 10.22—The Cambrian Glee Party, "Let the Hills Resound" (Richards), "Llanfair" (Welsh Melody). 10.30—Miss Iris Turner, soprano, "Ar Hyd Y Nos" (Songs of Wales), "Mofrydd Llwyn Onn" (Songs of Wales). 10.37—Miss Dorothy Roxburgh, viola solo, "Bells of Aberdovey" (Richards). 10.45—Madame Turner, Messrs. Griffith and Jenkins, trio, "Dw Bydd Drugarog Wrthym Ni" (Parry). 10.51—Mr. Owen Griffith, the Cambrian Glee Party, and the Buckley and Nunn Studio Orchestra, the Welsh National Anthem, "Hen Wlad Fy 'Nhadau." 11—"God Save the King."

#### THURSDAY, NOVEMBER 5.

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—Result of the first race from the V.R.C. Meeting at Flemington. 1.5—Buckley and Nunn Studio Orchestra. 1.35—Result of the second race at Flemington. 1.37—Buckley and Nunn Studio Orchestra. 1.45—"Herald" and "Argus" news services. Stock Exchange information.

Programme continued on page 46

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Glen Innes,

19/10/'25.

Dear Sir,

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Many thanks for your prompt attention in despatch.

I am more than satisfied with the set and I will lose no opportunity of showing any one this great little set.

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*Inspection Cordially Invited*

From the Crystal Palace on Friday, October 30th, will be transmitted through 2FC, a special programme supplied by the Crystal Palace Orchestra (by permission of Union Theatres Ltd.) From the dressing room of Her Majesty's Theatre will be given a talk by Leyland Hodgson, principal of the "Leave it to Jane" Company. From the Studio, Miss Mabel Batchelor, soprano, Mr. Gladstone Bell, 'cellist, Mr. Lionel Lawson, violinist, Mr. Eric Masters, baritone, and a review of next week's films.

The Union Steamship Company's R.M.S. "Aorangi" has been fitted with a short wave outfit, call sign GDVB. Operates down about 40 metres.

FOR SALE.—5 Valve Set, 2 stages Tuned Plate Radio Frequency, Detector, and 2 valves Audio Transformer Coupled. 5 new Radiotron 201A valves, Exide batteries, etc., complete in excellent order, any trial. Full particulars from C. Smith, 123 Castlereagh Street, Sydney.

#### STRATHFIELD AND DISTRICT RADIO CLUB.\*

The usual weekly meeting was held at the Club rooms, corner of Duke Street and Albert Road, Strathfield, on Wednesday, 21st instant, with a very good attendance of members.

After a discussion on the A.R.R.L. meeting which was held on Friday evening, Mr. Griffith commenced a very interesting test of loud speakers. Among those which gave excellent results were the Sterling Primax (pleated diaphragm) and the "Ethovox," kindly lent by Burndept Ltd. Others which were tested and which gave very good volume were the C.A.V., Amplion and a Baldwin Single Unit with wooden horn, and a small German speaker of 6 inches diameter and 2½ inches high.

The previous meeting took the form of a lecture by Mr. Lawrenson on Rectifiers, dealing with Commutator, Mechanical (vibrator), electrolytic, Vacuum tube and Mercury Arc rectifiers.

It is proposed to hold a Dutch auction on November 4th in place of the lecture on Tuning which was to have been given by Mr. Harris.

Queries regarding membership, etc., will be promptly attended to by the Honorary Secretary, 1 Mills Crescent, Burwood.

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## 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.

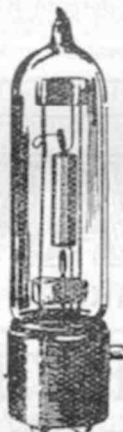
"I am writing to you for the purpose of bringing before your notice some very interesting experiences I have had with a couple of your Weco valves (white spots).

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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## Programme continued from page 43

Weather forecast. River reports. 2—Close down. 2.35—Result of the third race from the V.R.C. Meeting at Flemington.

Afternoon Session (3 to 5.15 p.m.): 3—Time Signal. 3.1—Musical programme by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco. 3.15—Result of the fourth race from Flemington. 3.20—Paramount Theatre Orchestra. 3.50—Result of the fifth race from Flemington. 3.55—Paramount Theatre Orchestra. 4.30—Result of the last race from Flemington. 4.35—Paramount Theatre Orchestra. 5—"Herald" and "Argus" news services. 5.15—Close down.

Evening Session (6 to 7.15 p.m.): 6—Children's Hour. "Billy Bunny" stories by "Little Miss Kookaburra," who will tell how "Mr. Fox is tricked by Mr. Buzzard" from the Uncle Remus Storybook, and fourth instalment of "The Plucky Patrol." 6.45—"Herald" and "Argus" news services. Reuter's and the Australian Press Association cable news. Market reports. Weather synopsis. Closing Stock Exchange information. Shipping movements. Market reports by the Victorian Producers' Co-operative Co. Ltd.: Haymarket sales, cattle, pigs, carcase meat, grain, chaff, hay, straw, jute, dairy produce, potatoes and onions.

Night Session (7.15 to 11 p.m.): "Dance Night." Speakers: Madame S. E. Soward, Mr. John Shirlow.

Robert Keers and the Tivoli Theatre Orchestra; Sonora Recital; Tom Swift's Embassy Band; Mr. Albert Durand, banjoist; Mr. Eric J. Wood, baritone; Miss Wish Wynne and Mr. Bernard Kitchen. 7.15—Madame S. E. Soward in a French talk, "Un peu de Fantasia." 7.45—Mr. John Shirlow, "Felton Bequest Purchases—Picture Talk." 8—Robert Keers and the Tivoli Theatre Orchestra, transmitted from the Tivoli Theatre by permission of Musgrove's Theatres Ltd., and "A Little Surprise." 8.30—A Sonora Recital: 1, Overture, "Madam Pompadour," Mayfair Orchestra; 2, aria, "Vissi d'Arte," Madame Marie L. Edvina; 3, violin solo, "Tambourin Chinois," Fritz Kreisler; 4, vocal duet, "Prologue" from "Twilight of the Gods," Florence Austral and Tudor Davies; 5, piano duet, "Old Italian Airs," Phil. Ohlman and Victor Arden; 6, song, "The Bandelero," Horace Stevens. 9—Tom Swift's Embassy Band: "Chansonette," "Heart Broken Rose," "Yvette," "Dreamy Monterey," "Mighty Blue," "So this is love," "I cried for you," "Charley, my boy," "Maisie." During the intervals at the Embassy the following order of programme will be observed:—Mr. Eric J. Wood, baritone, "Corporal John Bartholomey" (Squire), "Deep in my heart a lute lay hid" (Aylward); Mr. Albert Durand, banjoist, "Banjo-ology"; Miss Wish Wynne, accompanied by Mr. Bernard Kitchen, "It didn't seem right," "The Mother," "The Simpleton," "Liza"; "Argus" and "Herald" news services; Mr. Eric J. Wood, bari-

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tone, "I did not know" (Trotiere), "Rest thee, sad heart" (del Riego); Mr. Albert Durand, banjoist, in a series of medleys. 11—"God Save the King."

#### FRIDAY, NOVEMBER 6.

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 cable news. 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—Result of first race Williamstown Racing Club Meeting. 2.5—Close down. 2.35—Result of second race Williamstown Racing Club Meeting.

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—Anatole France." 3.15—Result of third race Williamstown Racing Club Meeting. 3.18—Musical items by the Paramount Theatre Orchestra, under the baton of Signor Vincent Ricco. 3.40—Result of fourth race Williamstown Racing Club Meeting. 3.45—Paramount Theatre Orchestra. 4.10—Result of fifth race Williamstown Racing Club Meeting. 4.15—Paramount Theatre Orchestra. 4.45—Result of last race Williamstown Racing Club Meeting. 4.48—"Au Fait," of Buckley and Nunn Ltd., in a "Fashion Talk." 5—"Herald" and "Argus" news services. Sporting results. 5.15—Close down.

Evening Session (6 to 7.15 p.m.): 6—Children's Hour. "Billy Bunny" stories: "Nursery Rhymes," "Little Ragged Blossom," "The Stone Axe of Burkamuk." 6.45—"Herald" and "Argus" news services. Reuter's and the Australian Press Association cable news. 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 (7.30 to 11 p.m.): Speakers, Mr. Matthew Charlton, Mr. Leslie Brunning, Mr. Arthur Streeton, A.R.A., Mr. W. Priestley ("Musket"), Miss Gladys Moncrieff. Len Gibson's Mandolin and Banjo Quartet; Miss Jessie Batchelor, contralto; Mr. Russell Callow, tenor. 7.30—Under the auspices of the Develop Australia League, Mr. Arthur Streeton, A.R.A., "Australian Art." 7.45—Miss Gladys Moncrieff, now appearing in "The Street Singer," will speak from her dressing-room at Theatre Royal by permission of J. C. Williamson Ltd. 8—Mr. Matthew Charlton, leader of the Federal Labour Party, will deliver a speech from the Prahran Town Hall, Prahran. 9.45—Len Gibson's Mandolin and Banjo Quartet in fifteen minutes of melody. 10—Mr. W. Priestley, "Musket" of "The Sporting Globe," on "The Melbourne Cup." 10.15—Miss Jessie Batchelor, contralto, "The Garden of Sleep" (de Lara), "The Little Hill" (Gleeson). 10.22—"Argus" and "Herald" news. 10.25—Mr. Russell Callow, tenor, permission of J. C. Williamson Ltd., "Vesti la giubba" (Leonevallo), "Mountain Lovers." 10.32—Mr. Leslie Brunning, gardening notes, "Beets, Carrots, Parsnips." 10.47—Len Gibson's Mandolin and Banjo Quartet, in fifteen minutes of melody. 11—"God Save the King."

## Who Is It?

(To the Editor.)

Sir,—I am in receipt of QSL cards from various parts of South Australia advising me of receipt of my CW signals.

The time of receipt of my call sign is the same on each of these cards, so that as I was not transmitting on this date it would appear that someone has taken the loan of my call sign.

Whoever this is, they must have operated in S.A. This kind of business is of no assistance to me because I do not know where I stand. I would be pleased if you would publish the following in your journal:

"If the radio ham in State five who used call sign 2PH on 18th instant will communicate with the owner of that call he will forward him QSL cards due to him and, incidentally, a lot of other little things."

Yours faithfully,

P. HOARE, (2PH).

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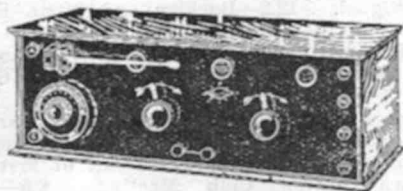
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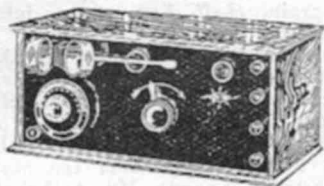


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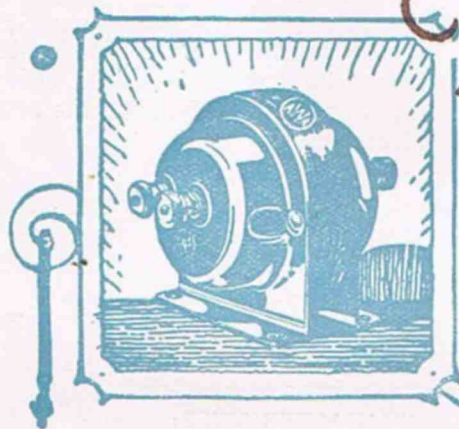
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