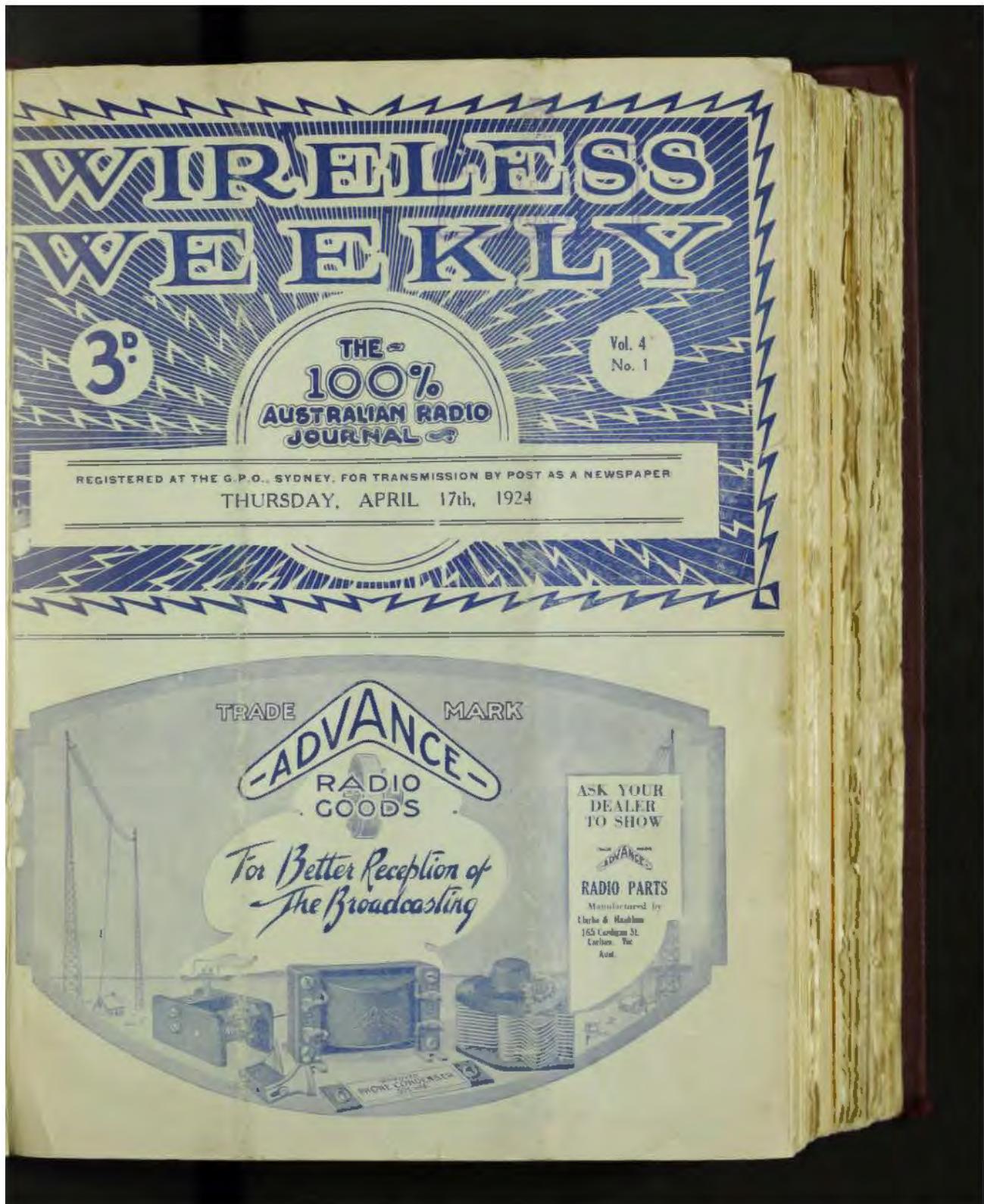


The wireless weekly : the hundred per cent Australian radio journal



Thursday, April 17th, 1924.

WIRELESS WEEKLY

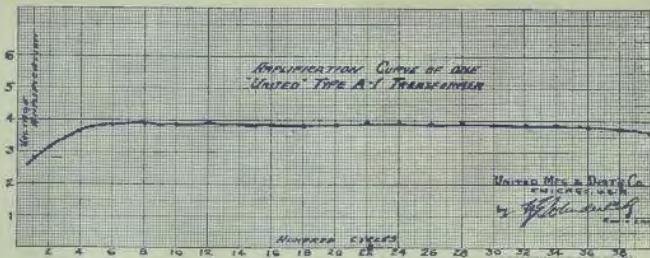
UNITED.....

UNITED
Type A-1 Ratio 5 to 1



Transformers

UNITED
Type A-2 Ratio 3½ to 1



Let Us Once and for All Times Settle This Question of Audio Amplification

Transformers, in order to give perfect audio amplification must have a characteristic curve as near to a straight line as possible.

United Audio Transformers have just such a curve as can be seen from the above chart.

A perfect audio transformer necessitates the best of core and winding design and construction.

In the United the best of core iron is used, a proper air gap is another reason for their perfect performance, and the winding construction and impedance further combine to make it the absolute best.

The winding ratio and shielding present other items necessary to a perfect transformer.

The Good United Transformers have solved both questions in an admirable manner.

Last, but really first, a perfect audio transformer must give perfect practical results.

Recently, United Audio Transformers came out FIRST in tests conducted by the University of California—conclusive proof that United is supreme.

Ask your dealers to show you these transformers, and other United efficient Radio parts. Variable Condensers, plain and vernier.

Try them and convince yourself. Results speak louder than advertisements.

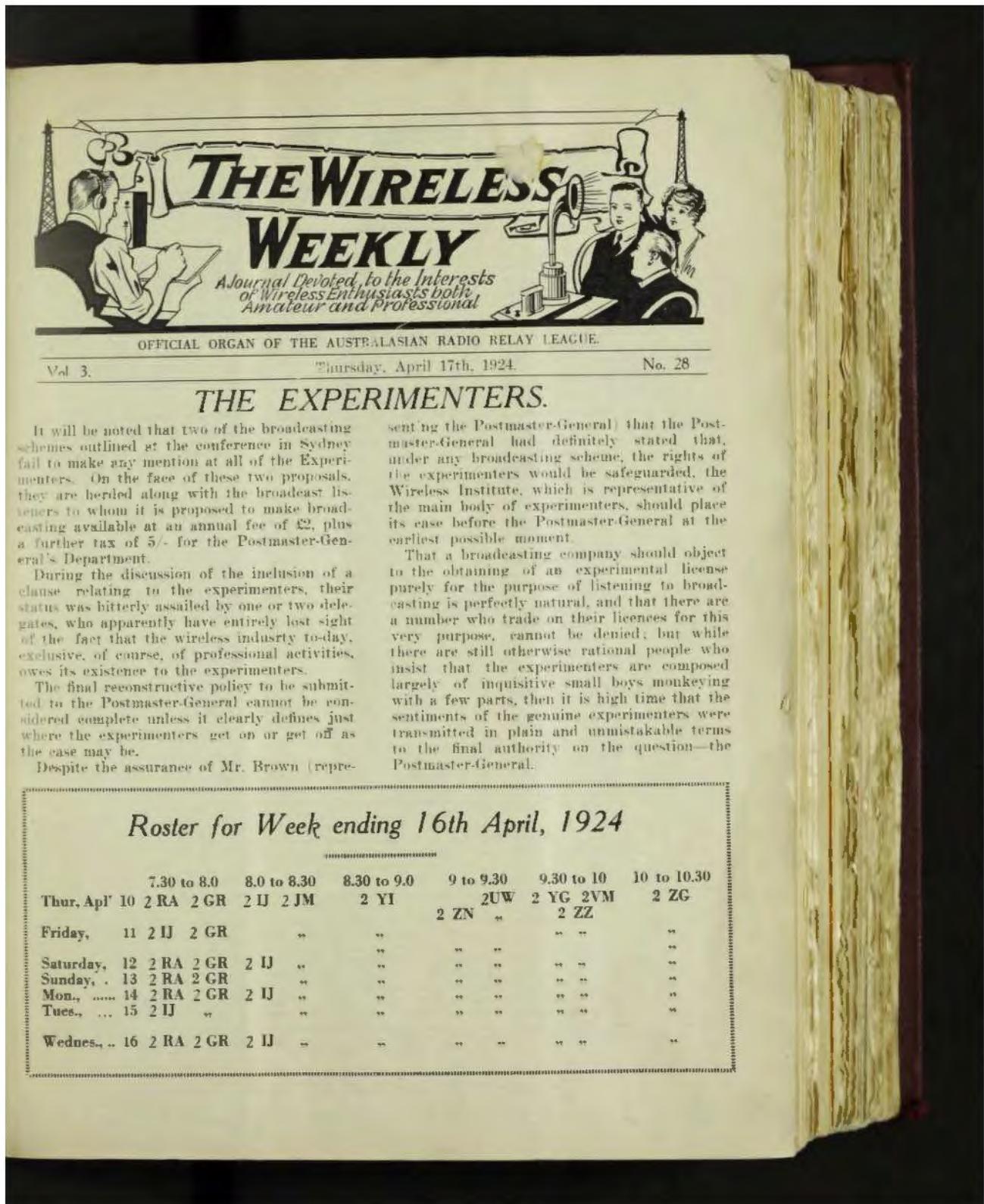
Try a United Radio Frequency Transformer. Now on the market
EVERY RADIO DEALER SELLS UNITED

United Distributing Coys. (N.S.W.) Ltd.

(WHOLESALE ONLY)

Manufacturer of Radiovox Sets

28 CLARENCE ST., SYDNEY and at 592 BOURKE ST., MELBOURNE



It will be noted that two of the broadcasting schemes outlined at the conference in Sydney fail to make any mention at all of the Experimenters. On the face of these two proposals, they are herded along with the broadcast listeners to whom it is proposed to make broadcasting available at an annual fee of £2, plus a further tax of 5/- for the Postmaster-General's Department.

During the discussion of the inclusion of a clause relating to the experimenters, their status was bitterly assailed by one or two delegates, who apparently have entirely lost sight of the fact that the wireless industry to-day, exclusive, of course, of professional activities, owes its existence to the experimenters.

The final reconstructive policy to be submitted to the Postmaster-General cannot be considered complete unless it clearly defines just where the experimenters get on or get off as the case may be.

Despite the assurance of Mr. Brown (repre-

senting the Postmaster-General) that the Postmaster-General had definitely stated that, under any broadcasting scheme, the rights of the experimenters would be safeguarded, the Wireless Institute, which is representative of the main body of experimenters, should place its case before the Postmaster-General at the earliest possible moment.

That a broadcasting company should object to the obtaining of an experimental license purely for the purpose of listening to broadcasting is perfectly natural, and that there are a number who trade on their licences for this very purpose, cannot be denied; but while there are still otherwise rational people who insist that the experimenters are composed largely of inquisitive small boys monkeying with a few parts, then it is high time that the sentiments of the genuine experimenters were transmitted in plain and unmistakable terms to the final authority on the question—the Postmaster-General.

Roster for Week ending 16th April, 1924

	7.30 to 8.0	8.0 to 8.30	8.30 to 9.0	9 to 9.30	9.30 to 10	10 to 10.30
Thur, Apr' 10	2 RA 2 GR	2 IJ 2 JM	2 YI	2 UW	2 YG 2 VM	2 ZG
			2 ZN	"	2 ZZ	
Friday, 11	2 IJ 2 GR	"	"	" "	" "	"
Saturday, 12	2 RA 2 GR	2 IJ	"	" "	" "	"
Sunday, 13	2 RA 2 GR	"	"	" "	" "	"
Mon., 14	2 RA 2 GR	2 IJ	"	" "	" "	"
Tues., 15	2 IJ	"	"	" "	" "	"
Wednes., 16	2 RA 2 GR	2 IJ	"	" "	" "	"

The Broadcasting Conference.

Imbued with the spirit of service to the public, and enlightened by the consequences of the mistakes made at the conference in Melbourne last year, representatives of the broadcasting companies and the public of N.S.W., Victoria, Queensland, South Australia and West Australia, met at the G.P.O., Sydney, on April 8th. Their mission was to accomplish two things: (1) To discuss ways and means of abolishing sealed receivers; (2) to draw up and submit to the Postmaster-General a workable scheme whereby broadcasting could be carried on in Australia with a system of open receivers and an assurance that an adequate financial return would be obtained by those companies desiring to broadcast.

During the first day's business, the following delegates were present under the chairmanship of Major Marr, M.H.R., and with Mr. H. P. Brown, Secretary of the Postal, Telegraph and Telephone Dept. (representing the P.M.G.), H. Norman Pope and S. E. Wilson (Farmer and Co., Ltd.), H. A. Kauper (S. Australia Radio Assoc.), J. Thomson (West Australian Farmers' Co-op., Ltd.), with whom was associated W. E. Coxon as technical adviser, R. Wilkes (West Australian Radio Association), L. P. R. Bean (Queensland Radio Association), J. Derham (Victorian Radio Association), P. Carroll (Victorian Radio Association), A. L. Brown (Associated Radio Co., Ltd.), E. J. Fahey (N.S.W. Association for Development of Wireless), W. J. Maclardy (Broadcasters, Sydney, Ltd.), W. D. Scott and L. D. Rudolph (N. S.W. Association for Development of Wireless).

On the second day of the conference, Mr. R. F. Gardner replaced Mr. A. L. Brown as representative of Associated Radio Co., Ltd., and Mr. E. Holloway replaced Mr. P. Carroll as representative of the Victorian Radio Association. The Millswood Company, of Adelaide was not at any time represented.

The chairman read out a letter signed by Messrs. Anthony Horderns, Ltd., New System Telephones Pty. Ltd., Marcus Clark Ltd., Mark Foys Ltd., Harringtons Ltd., David Jones Ltd., and Lassetter's Ltd., disassociating themselves from any but the principle of one big broadcasting station.

In opening the business, Mr. D. Scott (president Association for Development of Wireless) stressed the fact that the object to be kept conspicuously in view by the delegates was the ultimate benefit that could be derived from broadcasting by the public of Australia, and pointed out that if every delegate was fully alive to the possibilities of broadcasting, then the result of the conference must be successful. They were gathered, said Mr. Scott, as representatives of the public welfare, weighted with heavy responsibilities, which it was the duty of every delegate to consider foremost. The difficulties that had existed in the past, the bitterness that had arisen between the broadcasting interests and the other members of the community, would all be swept away if all the delegates bore in mind that the real object of the conference was the earnest endeavour to conciliate and weld together the various bodies affected by broadcasting, and all combine to give the public the best that could possibly be got out of broadcasting.

The quickest way to approach the matter was to definitely ascertain the attitude of the delegates on the question of sealed sets versus open receivers, and upon this being put to the meeting, all present declared themselves definitely in favour of the principle of open receivers, provided the interests of the broadcasting companies be adequately protected.

In reply to a leading question, Mr. S. E. Wilson, who declared that Farmer and Co., Ltd., had probably done more for broadcasting than anyone else in Australia, would, no matter what scheme was in force do their utmost to provide the public with the maximum efficiency of broadcasting possible under the regulations. He had definite information that the sealed receiver was absolutely efficient and further stated that when Farmer and Co., Ltd., entered into a contract they observed it to the letter. Mr. Wilson said that Farmers were prepared to submit a scheme to the P.M.G., but when pressed by Mr. Bean to disclose the nature of the scheme in so far as it concerned the public, stated that the private business interests of Farmers were so closely allied to the scheme that they were forced to reserve the

details for the ear of the P.M.G., and then only upon a definite invitation.

A motion by Mr. Bean censuring the attitude of Farmers in refusing to discuss their scheme at the Conference was withdrawn only after Messrs. Pope and Wilson threatened to withdraw.

The proposal of the Association for the development of Wireless was then read out by Mr. Scott.

Scheme Devised by the Association for the Development of Wireless in Australia, New Zealand and Fiji.

The following constitute the 22 clauses outlined in the Association's reconstructive scheme for broadcasting. It should be noted that a number of the members of the association are definitely against this scheme.

(1) The public to be allowed to use open sets without any restrictions whatever.

(2) The issue of a common licence for all owners of radio receiving sets at 40/- per annum, for the broadcasting subscriptions, exclusive of 5/- per annum for the Government. The broadcasting subscription is herein-after called the revenue, and shall be exclusive of all royalties, if any.

(3) Each licence shall be permanently exhibited in the room in which the set is used. A penalty of not less than £50 for housing a set without the licence.

(4) Broadcasting licences to be of two kinds, namely, "A" licence, the holders of which shall be remunerated from the revenue; "B" licence, which shall be issued to persons desiring to broadcast without remuneration from the revenue.

(5) No person, corporation, company or firm, shall in any one State be directly or indirectly interested in more than one "A" station broadcast transmitting license. This will not deter any concern from operating in more than one State or relaying its own programme within the State (A broad outline). Number of "A" class broadcasting licenses to be limited to three in N.S.W., three in Victoria, two in Queensland, two in South Australia, and two in Western Australia.

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(6) "A" class stations shall all operate under one name in each State, and shall be identified by a number, letter, or call sign. No firm or company operating an "A" class station shall in any way use the station for political or advertising purposes, or link the sale of goods sold by them with the station they are operating, or associate the station they are controlling with any trade name.

(7) The creation of one broadcasting board (hereinafter called the board) in each State, with full power to function along the following lines:

- (a) Supervise broadcasting in accordance with the regulations (b) to advise the broadcasting companies concerning the correlation of programmes, avoidance of repetition, times of broadcasting, etc.

(8) The board shall consist of a chairman, who shall be Deputy Postmaster General in each State, a member appointed by each "A" class broadcasting station and members representing the public (hereinafter termed public members).

(9) The number of public members on the board shall be equal to the number of "A" class broadcasting transmitting stations within the State, and shall be periodically elected by the Wireless Development Association of the State.

(10) The board shall—immediately upon being constituted—and thereafter as occasions demand, draw up regulations which shall provide adequate machinery for the detection and prosecution of all unlicensed listeners in, and unlicensed radio dealers. The board shall have power to utilise to the fullest extent the services of licensed radio dealers, and the facilities of the Postmaster-General's Department shall be at the disposal of the board for this purpose.

(11) The members of the board shall be remunerated by the Government from the 5/- for which that body will retain from each listening-in licence. The responsibilities of the board will be great, and will make great demands upon the time of its members.

(12) One public member will retire each year from the board. He will be eligible for re-election.

(13) All "A" class transmitting licences to lodge a guarantee of £1000 with the Government, and agree to broadcast for a period of five years, and the paid-up capital shall not be less than £20,000. In any State in which there are no broadcasting stations, the P.M.G. shall retain the revenue for the subsequent promotion of

"A" class broadcasting within the State concerned.

(14) In the event of there being only the one broadcasting company in the State, that company shall retain the whole of the revenue. In the event of a second company being formed, the company forming must give six months' notice of its intentions to broadcast. At the end of the six months, the revenue shall be apportioned as provided therein.

(15) Any "A" class station failing to broadcast to the satisfaction of the board within six months from the date of issue of the licence, may have its licence cancelled by the P.M.G.

(16) "B" class stations may broadcast any music, news or advertising programmes subject to the approval of the board, but may not relay or repeat any programme of an "A" class station.

(17) All subscriptions paid to broadcasting companies for licences, under the existing regulations, shall be retained by such companies, but at the end of the tenure of such licences they shall be replaced by new licences, in accordance with the amended act and regulations.

(18) All receiving licences to be obtainable, and fees to be payable at any post office or licensed radio dealer's office in the Commonwealth.

(19) Eighty-five per cent. of the revenue collected within each State shall be equally distributed among the "A" class companies operating within the State.

(20) Fifteen per cent. of the revenue in each State shall be retained by the P.M.G., and every half year shall be distributed by the board among the "A" class companies on the basis of (a) general efficiency; (b) excellence of programme.

(21) "A" class stations, other than relay stations, to have a minimum aerial output of 1.K.W.

(22) The present dealer's licence to be retained, but the provision for the production of a licence by the customer be omitted.

Much discussion took place with regard to the 22 clauses outlined in the scheme, Mr. Cusack challenging the first clause upon the grounds that regeneration was the bugbear that, after world-wide experience in wireless, he declared would have to be restricted in Australia. Mr. Wilkes pointed out that regeneration had caused trouble where low power amateur transmission was concerned, but in high power broadcasting, it was a factor that need not be considered. No decision was reached upon this point. The discussion

then became general and subsequently Mr. Cusack withdrew from the meeting on the grounds that the main purpose of the Conference was being ignored.

At the evening session of the Conference Messrs. Farmer and Co., Ltd., were not represented. Mr. J. Thomson stated that W. A. Farmers, Ltd., were in favor of open seas, provided the interests of the Company were fully preserved. Mr. Gardner also stated that his company (Associated Radio) would fall into line upon the same basis. He then read out the proposal of the Associated Radio Company.

BROADCASTING PROPOSAL OF
THE ASSOCIATED RADIO CO.,
LTD.

The proposal briefly provides for:

1. Sets to be sealed for three wave length bands: (a) open from 250 to 600 metres; (b) open from 500 to 1000 metres; (c) open from 1000 metres upward. The two lower bands will enable operators of sets to listen to ships.

2. Three revenue-earning broadcasting stations in each State.

3. Broadcasting companies to collect fees as at present.

4. No license fee required from genuine experimenters.

There was no discussion upon this the delegates tacitly agreeing that as the proposal embodied sealed receivers, discussion would be a waste of time.

When the Conference resumed on Thursday, April 10th, Mr. H. P. Brown stated that as it was considered no good purpose could be achieved by being present, no delegate from Farmer and Co., Ltd., would attend. Mr. Cusack read out a scheme which, with slight differences was almost identical with that proposed by the Association for the Development of Wireless. Mr. Cusack stated that the sealed receiver could not possibly be as efficient as the open receiver, and he could not possibly say a good word for it.

BROADCASTING PROPOSAL OF
THE SOUTH AUSTRALIAN
RADIO CO.

1. The number of revenue-earning broadcasting stations is to be limited to 3 in Victoria; 3 in N.S.W.; 2 in W.A.; 2 in S.A.; 2 in Queensland, and 1 in Tasmania.

2. License fee to be decided by broadcasting companies with the approval of the Minister. License fee to be an inclusive one.

3. Collection of licence fees. Licences to be issued to the public by any

True distortionless music is a feature with N.H.M. Crystal Rectification

Thursday, April 17th, 1924.

broadcasting company's accredited agent or any post office.

4. The public to decide which company they will patronise. Broadcasting companies and dealers could demonstrate with the double purpose of allowing judgment of quality of programmes and efficiency of receiving apparatus.

5. Allocation of wave lengths will eliminate the necessity of zoning.

6. Control Board to consist of the D.P.M.G. of each State as Chairman, one representative of each broadcasting company, and as many broadcasting company subscribers as there are broadcasting companies. The latter to be nominated by subscribers and prospective listeners.

7. Receiving sets to be so constructed that they cannot possibly cause the aerial to oscillate.

8. The Board of Control to be responsible for the class of matter broadcasted.

9. Advertising to be allowed only to revenue earning stations.

The revenue shall be apportioned as follows in the cases where there are

two stations. To the nominated station, two-thirds of the revenue, the remainder to the other station. Where there are three broadcasting stations, 50 per cent. of the revenue shall be apportioned to the nominated station, and 25 per cent. each to the others. During a general discussion, Mr. Thomson raised the primary question of how revenue was to be allotted fairly to the broadcasting companies and explained that apart from the fact that he was there solely to advance the interests of his company, there were certain conditions peculiar to W.A. that must be considered. While freely admitting the principle of the open receiver, his company must see an adequate return before committing itself to anything.

The Conference then settled down to a general discussion upon the method of allocating revenue where there existed more than one "A" class broadcasting company, and upon Mr. Thomson objecting to the clause barring "A" class stations from advertising. Mr. Bean explained that there was nothing to prevent an "A" class station

collecting revenue from provisions of a programme over certain hours and then automatically converting itself into a "B" class station for the purpose of advertising, even though the same apparatus were used. This Mr. Holloway described as camouflage, but Mr. Wilkes explained that as there was nothing to prevent a company operating an "A" class station from also operating a "B" class station, the fact that the actual apparatus used in both stations were one and the same was purely a matter of economy.

Upon several occasions, the Conference adjourned to discuss certain matters privately and late in the afternoon of the 10th (Friday) a scheme which embodied certain of the clauses of the Association's proposals together with fresh proposals submitted by Mr. Thomson was placed before the delegates, but it was finally decided that before discussing this fully an invitation be sent to the firms not represented, viz., Harringtons Ltd., New System Telephones Pty. Ltd., A. Horlens, Ltd., Mark Foys Ltd., Marcus Clark

Continued on page 6

Burgin Electric Co. for Service and Quality

Cash Bargains for Experimenters

W.D. H. Valves, 1.1 volt, 25 amp, 37/6; Mullard "Ora," 20/-; Wecovalves, 1.1 volt, 25 amp., 37/6; Mullard Sockets, 2/-; 199 or 299 sockets, 4/-; Potentiometers, 12/6 and 14/6; Radio Frequency Transformers, 200-600 metres, 30/-; 200-5000, 45/-; Audio Frequency Transformers, 30/-; C. H. Battery Switches, 4/6; Telephone Plugs, 4/-; Valve Pin Insulators, 1/6.

LOUD SPEAKERS, 65/-.

BURGIN ELECTRIC COMPANY

WIRELESS ENGINEERS AND SUPPLIERS

Show-Rooms and Sales Department, 1st Floor, Callaghan House,

391 GEORGE ST., SYDNEY

Thursday, April 17th, 1924.

WIRELESS WEEKLY

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USE

Gilfillan Radio Parts

Highest in Quality—Economical in Price



VARIOMETER
R 100

Wave length range approximately 240 to 400 meters and can be doubled by connecting a condenser .0083 MFD capacity across variometer terminals. High inductance.

See word for use on patented circuit.



RADIO FREQUENCY VARIO-COUPLED.
R 1050—Bank Winding

For radio frequency reception, using antenna, a variacoupler of ultra-low coupling is essential. The instrument shown herewith is of this type and provides for sharp tuning and extreme selectivity. Local broad-casting may be readily turned out in favor of the more distant stations.



VARIO COUPLER
LARGE SIZE
R 325 A—Film winding
R 325 B—Bank winding

Welby Radio Company

13 Royal Arcade, Sydney

Telephone M3435



FILAMENT RHEOSTAT
R 525

This resistance element is carried in a deep recess in the bakelite body retaining form constant under all conditions. Contact finger is of phosphor bronze and runs smoothly over entire range, furnished according to the following specifications:

R 525 A—Approximately 10 ohms
R 525 B—Approximately 20 ohms
R 525 C—Approximately 30 ohms



1-INCH DIAL WITH 1-3/8
INCH KNOB
R 150

Graduations extend one-half way around circumference.
Furnished according to the following specifications:

R 150 A—To fit 1/4 in. shaft.

R 150 B—To fit 1/4 in. shaft.



2 1/2 INCH DIAL WITH 1-INCH
KNOB
R 175

Graduations extend around three quarters of the circumference making dial adaptable for use on rheostats and potentiometers. Furnished according to the following specifications:

R 175 A—To fit 3/16 in. shaft.

R 175 B—To fit 1/4 in. shaft.



2 1/2 INCH DIAL WITH 1-INCH
KNOB
R 175

Graduations in 16 divisions extending three quarters of the way around circumference. For use on primary impedance switch.



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Ltd., David Jones Ltd., and Lassetters Ltd., to elect one delegate to represent those firms on Monday, April 14th.

The following motion by Mr. Holloway which was in the nature of a bombshell was not seconded, and therefore lapsed.

MR. HOLLOWAY'S MOTION.

"In view of this Conference now not being fully representative of all the parties interested it is abortive to proceed further. I therefore move that the proposals already dealt with by the Conference be submitted to the P.M.G. with a request that committee of five and a chairman be appointed immediately by the P.M.G. to go fully into all the many proposals submitted to the P.M.G. by all parties, and such committee shall draft definite recommendations and submit them to a full Conference of interested parties to be held in Melbourne within the next ten days.

The Committee shall consist of the chairman, a representative of the P.M.G. and four representatives of the wireless interests."

Mr. J. Derham stated that Mr. Holloway was not stating the views of the Victorian Radio Association, but merely those of New System Telephones Pty. Ltd. Considerable discussion ensued upon the question of the present necessity of experimenters producing licenses before being allowed to purchase wireless parts, and Mr. Kauper asked what would be the result if a man when purchasing dog biscuits was required to produce a dog license.

QUESTION OF EXPERIMENTERS.

Mr. Fahey proposed the inclusion of a clause in the final proposal providing that experimenters be allowed to carry on free of all license fees. The prospective experimenter would be required to pass an examination in both transmitting and receiving; also for so many words per minute in the Morse code.

Every experimenter would be required to keep a log and submit it to the Radio Inspector every six months. Mr. Fahey stated that he had communicated with Mr. Phil Renshaw, the man to whom all experimenters were looking, and that gentleman had expressed himself as being entirely in accord with this proposition. Mr. Fahey did not make it clear whether Mr. Renshaw was expressing his own private opinion or that of the experimenters. Mr. Kauper stated that the Conference had nothing at all to do with experiment-

ers, and was purely a Broadcasting Conference. Mr. Wilkes proposed that all applicants for experimental licences be examined by the Radio Inspector or as an alternative a board comprised of representatives of the P.M.G. Department, Broadcasting Company and a body representing the experimenters. Mr. Thomson said that in his opinion every experimenter would be glad to pay the broadcasting subscription.

Mr. Bean stated that he was entirely in sympathy with the man who was engaged in research work who in his opinion was the only genuine experimenter. Broadcasting would offer much more scope for this research work, and those men intellectually fit to do that work were not impecunious and would not quibble over paying the full broadcasting subscription. Genuine experimenters were men of science, and he could hardly conceive of Australia being dotted with thousands of men engaged in research work in wireless. While no obstacle should be placed in the way of what Mr. Bean characterised as the genuine experimenter, he stated that the small boy was not worthy of consideration. In reply to a statement by Mr. Fahey that the

experimenter represented a force that may possibly upset the harmony of the broadcasting scheme, Mr. Bean stated that he did not consider that aspect need be discussed, and that the main thing to be considered was the protection of the broadcasting interests.

Mr. Fahey, in championing the cause of the experimenters, stated that very few of them listened to broadcasting. They were mostly engaged in research work. He suggested that the number of licenses be narrowed down to include only genuine experimenters.

Mr. Brown, in response to a statement by Mr. Bean, that since broadcasting commenced there had been a rush for experimental licences, quoted the comparative figures for N.S.W. as follows: December, 1922, 303 licences; March, 1923, 611; June, 1923, 1141; September, 1923, 1601; December, 1923, 2725; March, 1924, 3205.

The figures for S.A., Vic., W.A., and Tasmania were then quoted, and in response to a statement by Mr. Fahey that this did not show the unnatural increase as suggested by Mr. Bean, the latter proposed that the Conference waste no further time on the matter.

Continued on page 8

Our Radio Department

is now in full swing and we can supply you with a full range of "WIRELESS SUPPLIES." Being agents for the well known FEDERAL EQUIPMENT we are in a position to quote you "GOOD PRICES." Send along your Radio Problems, we are always AT YOUR SERVICE.

Price List on Application.

The Home Electric

106a King Street, Sydney
Phone B 5565.

Thursday, April 17th, 1924.

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The Colville-Moore Wireless Supplies Ltd.



Why Pay More?

A High Resistance Head set
of Reliable Construction and
Good Appearance

PRICE 25s. per Set

Guaranteed British Make

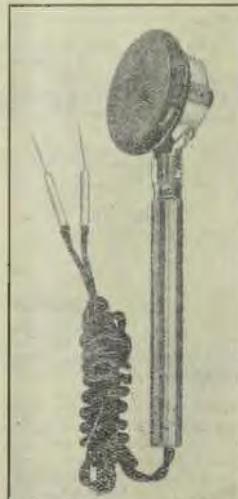
Weight only 10 ozs. 4000 OHMS Resistance.
Wound to give maximum number of turns proportional
to resistance. Stalloy Diaphrams, Aluminum Head
Bands Self alignment to the ears.

DE LUXE HAND-PHONE For Ladies Use.
This Hand Set has a special adjusting nut for altering
the pressure against the ears. The Handles are of
Ebonide and made in black, blue, red and white, which
gives smartness to any Wireless Set.

PRICE 50/- complete with Cords.

While the stock lasts from
The Colville-Moore Wireless Supplies Ltd.
10 ROWE STREET, SYDNEY

Trade Enquiries
Mr. KEILTY STOKES, Montana House, King St., Sydney
Manufacturers' Representative



Single Hand Phone 4000 ohms.

Price 18 9 each

Continued from page 6

Mr. Cusack, in supporting Mr. Bean referred to the valuable work being done by Government Radio Inspectors, and to the fact that Honorary Radio Inspectors were also assisting and use could be made of them in the future. Mr. Scott reminded the Conference that the experimenter was in existence long before broadcasting, and deserved every consideration. A Board should be formed to provide for the examination of applicants, the basis to be proficiency in sending and receiving.

Mr. Bean opposed this on the ground that the mere sending of dots and dashes did not constitute research work. Major Marr stated that there should be an age limit, and that in his opinion a man over 40 could not learn the Morse code. A passage at arms occurred between Mr. Scott and Mr. Bean, the latter stating that he had never learned the code and was never likely to.

Mr. H. P. Brown then stated that in any broadcasting scheme the P.M.G. would protect the rights of the experimenters.

Finally Mr. Scott proposed that the matter be left over for private conference and the delegates then adjourned until Monday, April 13th.

A feature of the Conference was the extraordinary patience exhibited by Mr. H. P. Brown, who must be congratulated upon his ability to sit for hours, silent and inactive, and yet paying the strictest attention to the debates of the delegates. The wonderfully sympathetic attitude maintained by Major Marr was also a marked feature and when considering the fact that his attendance at the Conference precluded him from taking part in important public functions connected with the visit of the Fleet; functions at which, not anticipating the protracted nature of the Conference, Major Marr had arranged to be present, then a special vote of thanks should be passed to him for the spirit which prompted him to cancel all arrangements in favor of the Development of Wireless in Australia.

SOME EXPRESSIONS OF OPINION.

To the three delegates who proposed a broadcasting scheme, this paper put a leading question along the following lines: "Do you consider that a clause should be inserted in your scheme providing for the exemption of experimenters from the payment of broadcasting subscriptions?"

Note the replies:

Mr. R. F. Gardner (Associated Radio Company, Limited): "As outlined in my proposal, the experimenters are not to be taxed. No broadcasting scheme can be considered fair or sensible unless this provision is made."

Mr. S. C. Cusack (S.A. Radio Company): I prefer not to answer the question."

Mr. W. D. Scott (president of the Association for the Development of Wireless): "Speaking for myself and for the association, I consider that the experimenter has been the greatest force for the advancement of wireless in Australia, and that he should receive every consideration. I think the best means of determining the genuine experimenter would be the establishment of a board, composed of one representative from each of the following bodies: The P.M.G.'s Department, the Association for the Development of Wireless, and a body representative of the whole of the experimenters."

Tell your friends about
"Wireless Weekly"

FOR YOUR Wireless Receiving Sets Spare Parts and Equipment Go to SWAINS SWAIN & CO. LTD.

119a and 123 Pitt Street

Call in and listen to Farmers' and Broadcasters' daily Programme

Excellent Wireless Broadcasting is being conducted daily by Messrs. Farmers' Ltd., and Broadcasters', Ltd.

With the removal of the objectionable regulations which held up the sale of receiving sets, everyone in Australia will be clamouring for a set as good as they can afford to purchase. Whether it be a Crystal Set, costing only a few pounds, or a Set de Luxe, costing anything from £75 to £250, no one is likely to be without one.

The only problem to solve being as to the type of set it is intended to purchase—and that is where we desire to be of assistance to you.

We have one of the finest selections of Receiving Sets in Sydney, manufactured by the Amalgamated Wireless Co., Ltd., the United Distributing Co., Ltd., and by British companies.

Also we have one of the best wireless experts in Australia—who will make you a set to order—demonstrate the sets on hand, and give you all the necessary information to operate or to build your own set with the parts which we stock.

We undertake to procure all licenses or permits, and to make the necessary arrangements to enable you to listen in to all the wireless programmes from authorised local sources.

The Wireless Supply Centre—of Sydney—is Swains, 119a and 123 Pitt Street

Thursday, April 17th, 1924.

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AMERICAN TESTS ON LOW WAVE LENGTHS.

AN INTERESTING EXPERIMENT

The following letter, which speaks for itself, has been received by the Hon. Secretary of the Australian Relay League from the Traffic Manager of the American Radio Relay League.

"Since my letter of October 23, 1923, there has been an interesting exchange of signals between America and Europe, and Canada and Europe, on wave lengths between 105 and 120 meters.

For some unaccountable reason we have not been able to work two-way communication across the Atlantic on 200 meters. Perhaps interference on our side had much to do with it. However, our 200 meter stations have been heard over there, as you know, and some 200 meter European signals were heard during the recent Trans-Atlantic tests.

The surprising thing is that on the shorter waves two-way communication has been established by American and Canadian amateurs with the amateurs of England, France, Holland, and Italy.

A number of American and Canadian amateurs have been successful. The communication is quite satisfactory with no real violent fading that

we often find on 200 meters. Whether or not the whole thing can be attributed to the short waves, I am not prepared, at this writing, to say. Probably further experiments will teach us more about it.

My purpose is to ask if there is a sufficient number of your men interested to make it worth while to conduct some short wave tests 105 to 120 meters or lower if you wish. The tests, unfortunately, may be somewhat restricted as far as transmission by our amateurs is concerned as our radio law does not permit general amateur licenses to go below 150 meters. Experimental stations may use any wavelength for experimental work, but not for message traffic.

Perhaps by the time tests could be arranged, if agreeable, we may have a change in the wave length regulations, or we may obtain a limited blanket authority for the tests. Our reception is unrestricted.

If the idea meets with the views of your amateurs and if you desire to try tests on the short waves, I should be glad to hear from you at an early date with your proposals as to dates, time, and duration of the tests.

With kindest regards, believe me, cordially yours, F. H. SCHNELL, IXW

—112 metres, Traffic Manager.

P.S.—You might ask some of your amateurs to listen on 105 to 124 metres as a number of European, Canadian and American amateurs are operating quite steadily.

BOOKS ON WIRELESS

Twenty-Four Radio Diagrams and Hook-Ups, of Crystal and Audion Receiving Sets. Price, 3/3 posted.

A Reinartz Receiver. How to Make. Price, 3/3 posted.

Radio 'Phone Crystal Set. How to Make. Price, 3/3 posted.

Reflex Receiver. How to Make. Price, 3/3 posted.

Radio Frequency Amplifiers and How to Make Them. By J. Avery. Price, 1/8 posted.

N.S.W. Bookstall Co. Ltd

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ALL BRITISH MELLO PHONES

Stalloy Diaphragms. No spacing rings necessary for adjustment. Self Alignment to the ears. Best quality Cord (red and black). Duralium Head Bands, which make them very flexible. No rusting. No nickel plating to peel off. Most comfortable to the head, and light in weight.

*No Naked Connections, therefore Fool-Proof.
Very Sensitive and Clear Mellow Tone.*

DOUBLE HEADSET . . . 4,000 ohms. 25/-
SINGLE HAND PHONE . . . 4,000 " 18/6

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386 GEORGE STREET

Branches in all States.

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Brandes Superior
Matched Tone
Headset with polarity indicating
cord—

40/-



WILES' WONDERFUL WIRELESS

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You will be interested in having the latest of the World's Electrical and Radio products demonstrated by Experts

W. HARRY WILES

Electrical and Radio Engineers

60-62 GOULBURN STREET

(One Door from Pitt Street)

SYDNEY

Thursday, April 17th, 1924.

WIRELESS WEEKLY

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A Crystal Set for 5/-

By "Insulator."

Insulator is full of apologies. In his article last week on "A Valve Panel," he omitted to include the grid condenser and grid leak in the circuit. He admits that this is deplorable; but points out that the difficulty is easily overcome.

A combined grid condenser and leak can be purchased for 1/6 and should be inserted between the terminals G and the grid of the valve.

The type of article he recommends is the ebony type fixed condenser of .0025 m.f. With a soft pencil, draw lines between the two nuts until loudest signals are heard. If too much pencil is rubbed on, some of it can be erased with a soft rubber.

Not very hard after all, is it? Shall we let him off lightly this time? Yes? That's right!

When I started writing articles for Wireless Weekly, I did not foresee the amount of correspondence which would come my way, avert these little attempts of mine. There seems to be a considerable number of enthusiasts who are interested in my constructional articles, and you know I feel just a wee bit proud. I have had several requests for a simply constructed and inexpensive crystal set, "and one that will work."

Now this little set "will work" and is easily made and certainly is inexpensive. At least it is to me, and I am a Scotzman.

Here is what is required:

1lb. No. 18 D.C.C. Wire	1/3
4 Terminals (wood screw type)	1/6
1 Crystal Cup	6d.
1 Crystal	1/-
7in. of 3/16 Round Brass Rod	3d.
One 6in. square Base Board	6d.

The illustration on this page shows the completed set. It will be observed that it employs variometer tuning and to those who haven't indulged in this method of tuning it will prove an interesting experiment.

To make this variometer, wind 13 turns of No. 18 D.C.C. wire round some circular object of about 5in. diameter such as a Jackett's Flour Tin. It is likely that they will slip loose, but this doesn't matter. Take the rough coil off, bunch it loosely together and tie some cotton round the ring to keep it together.

Push the brass rod through the middle of this ring temporarily (between the turns, of course) and bind immediately on each side of the rod. This will leave a gap at the top and bottom. The stator is now completed.

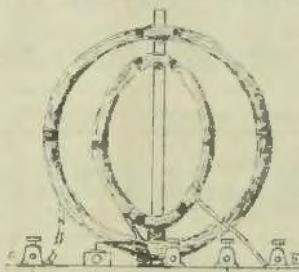
The rotor is made in a similar fashion, only this time the ring is made smaller, 4 in. diameter being correct.

A piece of cork or soft rubber is employed to rest the rotor on so it

will be necessary to make a 3/16in. hole in this to allow the rod to pass through.

Now place your stator and rotor in position, pushing the brass rod through the gaps made when binding the coils, and also through the cork or rubber disc.

Leave this down now and prepare your baseboard. Shallow it of course, and screw down the four terminals and crystal cup as shown in the diagram.



Place these near the edge of the board.

In the centre of this board drill or pierce a hole of such a size as to allow the brass rod to fit in tightly.

With the coils on the rod and the rod fitting snugly in the centre hole you are now ready to wire up.

One free end of the stator coil which should be left about 5in. long for this purpose is then bared of insulation for a couple of inches, and is then brought round under the terminal marked A (stator) and then to the crystal cup.

To the other free end of the stator coil a 6in. piece of flex is soldered which is then attached (soldered) to the first free end of the rotor coil. The remaining end of the rotor coil has another 6in. piece of flex attached

which is then clamped under the terminal E (earth). Next a short piece of wire is used to connect the same terminal E to the one nearest it which is for one side of the phones.

All that now remains to be done is to make a catwhisker and clamp it under the remaining phone terminal (2nd from left, nearest crystal cup) and see that it rests lightly on the crystal which is inserted in the cup for the purpose.

The coils can be made damp-proof by giving them a coat of shellac, or better still, wind some varnished cambric tape round them. I have advocated No. 18 gauge wire as it is perfectly pliable, yet stiff enough to keep the rings in shape. The whole operation in making this set from beginning to end shouldn't take more than an hour, so it can truthfully be claimed to be easily made.

Now we come to that most interesting part of all, that of trying out for the first time. Connect the aerial and earth and phones to their respective terminals, and move the catwhisker over the crystal while at the same time turning the rotor in different positions relative to the stator. Be sure of course, that Broadcasters Ltd. are going, as this set is essentially designed for their wave length although I have listened in to 2RA and 2YI with success. You will be agreeably surprised at the volume which it produces, provided of course you have a sensitive piece of crystal. Argentite, magnetite or N.H.M. galena are about the best for this purpose, each of these crystals being particularly sensitive.

Lest I haven't made everything clear to you I have left my own set of this make at Radio Company, Ltd., 18 Loftus Street, who will, I feel sure, be glad to show it to any enthusiasts in tending to make it up.

Broadcast Receiving Sets and License Forms

Together with the FREE SERVICE of
Broadcasters (Sydney) Limited
may be obtained from the following

L. P. R. Bean & Co. Ltd.
229 Castlereagh St., Sydney.
Telephone: City 353.

United Distributing Coys. (N.S.W.) Ltd.
(Wholesalers)
28 Clarence Street, Sydney.
Telephone: City 3566.

W. Harry Wiles
60-62 Goulburn Street Sydney.
Telephone City 3688 1 door from Pitt St.

Wireless Supplies Ltd.
21 Royal Arcade, Sydney
Telephone: M 3378.

E. R. Cullen
96 Bathurst Street
Telephones: City 869, 2596.

Radio House
619 George Street Sydney
Telephone: City 1487.

Colville Moore Wireless Supplies
10 Rowe Street Sydney.
Telephone: B2261.

Ramsay, Sharp & Co. Ltd.
217 George Street, Sydney.
Telephone: City 3176.

The Home Electric
106a King Street, Sydney.
Telephone: B 5565.

Swains Ltd.
119-123 Pitt Street, Sydney.

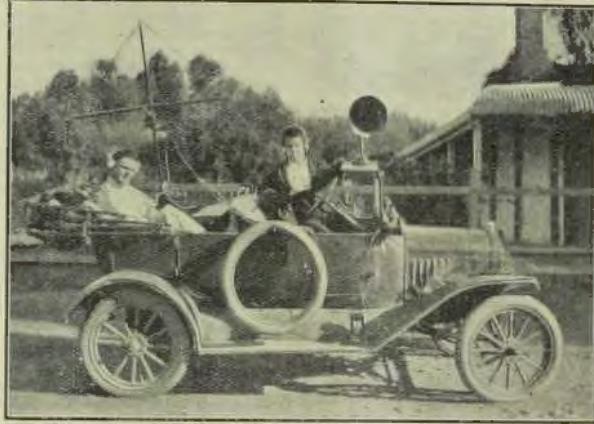
Thursday, April 17th, 1924.

WIRELESS WEEKLY

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ADDITIONS TO N.Z. TRANSMITTING CALLS.

1AL, C. S. Goodwill, Mitcham Av., Forest Lake Road, Hamilton.
1AL, T. H. Mulvihill, Launch, "Fleetwing," Auckland.
1AV, J. M. Bingham, 21a Swanson St., Auckland.
1AW, R. Maxted, Queen Street, Thames.
1AZ, J. R. Sherson, Oakley Av., Claudelands, Hamilton.
2AL, W. G. Edwards, Mangahao Power Station, Shannon.
2XA, E. A. Shrimpton, Rongorai Terrace, Iliongatai, Wellington.
3AL, W. M. Dawson, 263 Wills St., East, Ashburton.
3AG, R. Slade, 15 Harbour Terrace, Dunedin.
4AK, W. L. Sheil, 103 Macandrew Rd., South Dunedin.
4AL, A. H. Metz, 53 Slingo Terrace, Roslyn, Dunedin.
4AM, W. Mc. G. Crockett, 18 Chambers St., North East Valley, Dunedin.
4AO, T. E. Scott, 939 Cumberland St., Dunedin.



FORD WIRELESS.

The photo, shows the car and loop used in the tests made by the Wagga Radio Club, details of which were published in a recent issue of Wireless Weekly. The chief trouble encountered was the "static" from Lizzy, which could be plainly heard while the engine was running. Signals, however, were very clearly received at over 2 miles from the station of the Riverina Wireless Supplies Co.

Croydon Radio
School
Lang-st., Croydon

A Special Class

will be held every

THURSDAY

commencing 27th March, for experimenters who wish to become more proficient in Morse. Pupils will also be specially coached to prepare them for Government Examination for Transmitting and Receiving Licences.

Fee: 2/- per lesson
7.30 p.m. to 9.30 p.m.

FREE BATTERY CHARGING

Wireless Supplies Limited,

21 Royal Arcade,

Sydney

Beg to announce that for the convenience of their

Customers, arrangements have been made to

Charge their Batteries

FREE OF CHARGE

Ask US about the Scheme

Thursday, April 17th, 1924.

2YG

The following card from 3BD (Cox, Vic.) has reached Ray Allsop (2YG). Your CW, ICW and phone sigs. worked here often at strength 8. QRM at times bad. QRN bad. QSS bad. Fading nil. Receiver, 2 tuned RF. Det., 2LF. Used TAF and Det. on you. Have heard you on indoor loop, and have heard your CW when your power was .005 watts.

The outfit at 2YG, which is a model of compactness and efficiency, will be fully described at a later date in "Wireless Weekly." It is a common occurrence lately for 2YG to conduct two way phone conversation with New Zealand.

To Club Secretaries

For the information of Experimenters generally, "Wireless Weekly" would be glad to publish a revised list of Radio Clubs. Secretaries are therefore asked to forward us the following particulars: Name of club, address, time, date and place of meeting, secretary's name and address, number of members in club.

BROADCASTING RESULTS OF THE ELECTIONS.

Saturday last was the polling day for the State Houses of Parliament in South Australia, and in the evening the progressive results of the counting of the votes was broadcasted by the South Australian Radio Co., Adelaide.

The broadcasting of results of the ballot commenced at about 9 p.m. and continued until well after midnight.

Results of trotting races, cricket, and other sports were also broadcasted, the programme being interspersed with musical selections.

Local speakers were in evidence in several parts of the town, and large crowds gathered to hear the results.

This is believed to be the first time that wireless has been used in Australia for the purpose of broadcasting election results.

REMARKABLE RECEIVER.

For the past two months the radio department of Mr. Harry Wiles, Goulburn Street, Sydney, has been experimenting with dual, or reflex, circuits. Exhaustive tests have proved that the receiver which will be described in the next issue of "Wireless Weekly" proved to be the most efficient and to have a minimum of controls. The circuit is

a combination of the famous Grimes Inverse Duplex and one of Scott Taggart's note regenerative circuits.

Three valves actually do the work of five: two radio, one detect, and two audio. It proves an excellent broadcast receiver, and gives unlimited scope for the experimenter who is out to get D.X. work. With this circuit 4YA, New Zealand, has been heard at loud speaker strength.

2GQ.

We regret that in a recent issue we published the call sign of the station of Mr. Barlow, Armidale, as 2CQ. This should have read 2GQ.

WIRELESS APPARATUS

New or Second-hand,
Bought, Sold or Exchanged

HOWELL'S

19 Barlow Street



THIS WEEK we are featuring all the necessary parts required to make the CRYSTAL SET as described by "INSULATOR" in this issue.

We are prepared at any time to answer questions covering any points not quite understood by readers of the article.

CALL FOR OUR EXPERT ADVICE

Thursday, April 17th, 1924.

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N.S.W. Transmitting Calls

Concluded

- 2YB—Croydon Radio Club (Cutts), Lang St., Croydon.
- 2YC—Crawford, C. T., 18 Lindsey St., Burwood.
- 2YD—Danne, C. W., "Lansdowne," Mann's Ave., Neutral Bay.
- 2YE—Manly and District Radio Club (Swainburne), Wentworth St., Manly.
- 2YF—Clarke, F. P. R., "Winona," Lauderdale Ave., Manly.
- 2YG—Allsop, R. C., "Levershamme," Botany St., Randwick.
- 2YH—Harman, W. H., 449 Darling St., Balmain.
- 2YI—Nolan, P. S., 152 Bellevue Rd., Double Bay.
- 2YJ—Sainsbury, R. H., "Karmanshah," Walleroy Rd., Concord West.
- 2YK—Olsen, N. P., 18 Hunter St., Newcastle.
- 2YL—Lendrum, A., 220 Doncaster Ave., Kensington.
- 2YM—Scott, J. L., 80 Hunter St., Sydney.
- 2YN—Thomas, G. P., 343 Sussex St., Sydney.
- 2YP—Bergin, M. W., "Keera," West Maitland.
- 2ZA—Keogh, W. G., 24 Harrow Rd., Stanmore.
- 2ZC—Lavington, F. M. E., Bennett
- 2ZD—Brain, S. F., 85 Bland St., Ashfield.
- 2ZE—Larker, F. J. F., Herfleur St., Deniliquin.
- 2ZF—Newtown District Radio Club (Caletti), 83 King St., Newtown.
- 2ZG—McIntosh, R. E., Barnes Bay Rd., Lane Cove.
- 2ZH—New Systems Telephones, 280 Castlecragh St., Sydney.
- 2ZI—Dixon, R. H., c/o Colonial S.R. Co., Condong, Tweed River.
- 2ZJ—Simpson, A. W., Duri.
- 2ZK—Marsh, S., Carrington St., West Wallsend.
- 2ZL—Otis, W., Killingworth.
- 2ZM—Deane, P. M., Clarence St., Burwood.
- 2ZN—Cottrell, J. W. M., 23 Dolphin St., Randwick.
- 2ZO—Willmott, T. B., Coramia Rd., South Grafton.
- 2ZR—Perdrian, W. J. S., 47 East Esplanade, Manly.
- 2ZT—Bean, L. P. R., 86 Muston St., Mosman.
- 2ZU—Gilmour, N. G., 156 Kurraba Rd., Neutral Bay.

- 2ZV—Universal Electric Co. (A. Dixon), 244 Pitt St., Sydney.
- 2ZW—Huggins, D. R., 13 Yeo St., Neutral Bay.
- 2ZY—Sidney, R. L., Highfield St., Lindfield.
- 2ZZ—Smith, C. P., 83 Cabramatta Rd., Cremorne.

The Baron Electric Co.

1 Spit Road, Spit Junction
Mosman

S U P P L I E S

ADVICE BY EXPERTS
FRIDAY NIGHTS
Enquiries for particular Wireless Competition
MTH. 1331

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PEERLESS
Head Phones

2000 Ohms.

30/-



"REFLEX" Loose Coupler Receiver

£3-15-0

Complete Set of Parts to make the above Set 36/6

Postage 1/6

RADIO HOUSE
619 George Street, Sydney



Thursday, April 17th, 1924.



THE LEICHHARDT AND DISTRICT
RADIO SOCIETY.

In spite of inclement weather conditions, there was an excellent attendance of members of the Leichhardt and District Radio Society, at the 75th general meeting, held at the club room, 176 Johnston Street, Annandale, on Tuesday, April 8th.

The main business of the evening was the fifth lecture of the new syllabus, "Crystal Circuits and Their Construction," set down for delivery by Mr. F. Rosee, but, as that gentleman had intimated his inability to be present at the meeting, Mr. E. J. Fox undertook to step into the breach at short notice, and did so in an excellent manner. The different types of

crystal circuits, using various kinds of inductances, were fully dealt with, and the lecture proved very interesting and instructive to all present. The usual batch of questions followed the lecture, after which a vote of thanks by acclamation was accorded Mr. Fox for his efforts.

The important matter of affiliation with the Wireless Institute of Australia has been discussed at considerable length, but up to the present no finality has been reached. To assist members to come to a decision, Mr. Phil. Renshaw, Hon. Secretary of the Institute, has kindly consented to be present at the 77th general meeting, to be held on Tuesday, April 22nd, for the purpose of putting the Institute's point of view before members, as well as to reply to questions, and to supply any information which members have not already got with regard to this matter, which it is generally recognised, is of the greatest importance. In addition to Mr. Renshaw's visit, the sixth lecture of the syllabus is set down for delivery by Mr. F. Lett, who will talk on that most interesting of subjects, "Valves," so, with these

two important matters on the business paper, there should be a record attendance of members.

Whilst a number of other clubs appear to be experiencing difficulty in holding their members together, it is refreshing to note that the Leichhardt Society was never in a more flourishing condition. Although its meetings are held as frequently as once per week, they are invariably well attended, and, to a great extent, it is felt that this is due to the fact that it is working to a programme, as it were. At present a syllabus of very interesting and instructive lectures is being carried out, and members know beforehand exactly what is to be done at the meetings ahead. The lectures are made doubly interesting by the fact that they are all delivered by members of the society, it being the club's policy to confine its lectures to members as much as possible. Of course, outside assistance is far from being disdained, as has been proved by the fact that such gentlemen as Mr. A. C. Connolly and Mr. Watkin Brown have delivered greatly appreciated lectures in the past, but if it is possible for any mem-

DAVID JONES'
RADIO SECTION

REMARKABLE RECEPTION ON 3 VALVES.
CALIFORNIAN STATION K.G.O. HEARD.

The following is a portion of a letter received by us from one of our customers residing on the South Coast:

"On the 19th March, at 6.7 p.m., I heard the following announcement: Pacific Coast Station K.G.O., Oakland California, transmitting from St. Francis' Hotel—Conductor. There were selections for forty-five minutes, and the transmission was very clear and plain. Each item lasted from 7 to 8 minutes. The programme was heard by three people, who can testify to the genuineness of the reception." The outstanding feature of this record is that it was accomplished on a Three Valve set, using—1 Detector, and 2 Audio Frequency Valves. This set was designed and built by the Radio Engineer at David Jones'. We believe that taking into account the Set used and the continuity of the programme received, this is a world's record.

DAVID JONES'
Radio Section, 252 York Street, Sydney

Thursday, April 17th, 1924.

WIRELESS WEEKLY

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ber to deliver a lecture on a subject decided upon, the members-meeting. Therein, to a large extent, lies the society's success.

Meetings are held on Tuesday nights, and any information regarding the activities of the society will be readily supplied by the Hon. Secretary, Mr. W. J. Zoch, of 145 Booth Street, Annandale.

MARRICKVILLE AND DISTRICT
RADIO CLUB.

The club recently passed the following resolution:

"We, as a body, suggest the experimenter pay the maximum sum of 30/- per annum to the Government, 10/- to be put aside for license fee, and £1 to be distributed as the Government thinks fit among the broadcasting stations."

A further proposal that Mr. E. B.

Crocker be sent to represent the experimenters at the broadcasting conference was passed. In this connection it has since been pointed out that the conference was purely to discuss broadcasting, and as such, it was apparently considered not necessary to call for experimental representation.

ST. JOSEPH'S COLLEGE RADIO
CLUB.

This club was formed in 1923, by Cecil Czisz, who is now president. After permission had been obtained from the director to form a radio club, a start was made with ten members. The Rev. Bro. Wilfrid acted as chairman, and did everything possible to coach the club members in Morse and practical wireless. Rev. Bro. Wilfrid was unfortunately later transferred to Victoria, and in the emergency that arose Cecil Czisz took over the reins, and

to such good effect that the club today has no less than 46 members, and is in a most flourishing condition.

The original apparatus operated by the club comprised a club-built loose coupler, but this soon gave way to a one-valve set, and the next step will be the acquisition of a four-valve set, comprising a high frequency, detector and two stages of low frequency.

The club meets every Saturday evening, and every Wednesday the officers meet to discuss the affairs of the club. The regular meetings include business, Morse practice, practical wireless and listening-in. Any experimenter wishing to lecture will be welcomed.

KGO

2GQ (Barlow, Armidale) reports having heard KGO (California) several times lately at quite good strength. Any DX'er in Victoria or South Australia heard KGO?

MANHATTAN

Light your Dry Cell Tubes with
Red Seal Dry Batteries
and secure longer service at low cost

All interested in Quality Radio Apparatus will find
Red Seal Radio Headsets
have many points of advantage and superiority

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It recreates the work of Broadcasting Artists

Protect your set and home with an
Argus Lightning Arrester
Approved by National Board of Fire Underwriters

Ask your dealer about these specialties, and
Fada Neutrodyne Receivers and Parts

Australasian Factory Representatives:

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The Moore Fund

The response which has been made to the appeal for funds in aid of the widow and children of the late Mr. F. L. Moore, who was electrocuted whilst carrying out wireless experiments at his home at Haberfield, has been frankly disappointing.

In fact, it may quite truthfully be said that the poor response casts a distinct reflection on the experimental movement generally.

In New South Wales there are more than 3,000 licensed amateur wireless men. Much is said regarding the feeling of unity which pervades the movement, and yet in the face of the extremely poor response with which the appeal for funds has met, one is tempted to ask whether this feeling really does exist, or whether it is a feeling in name only.

So far £108 17/6 has been collected through our columns, and an amount slightly under this figure has been received by our esteemed contemporary, "Radio." These figures may seem sub-

stantial, but if a close study is made of the lists it will be seen that almost 80 per cent of the total amount has been subscribed by a mere handful of firms and experimenters.

What is the matter with you, Mr. Amateur? Surely you realise that it is your duty to do just a little bit to help along the widow and kiddies of one of your fellow enthusiasts.

No amount need be considered too small. If you can only spare 6d, send it along to "Wireless Weekly," and it will be thankfully received.

Many radio clubs have taken up a collection on behalf of the fund, and so a fair amount has been handed in. "Wireless Weekly" looks to every club to start a list, and to forward as early as possible the amount collected.

Remember, that not a single penny piece of the money will be used except for the purpose for which it is intended. There has not been, and will not be, any spent in administration. All expenses have been borne quite outside of the fund, and the actual handling of the money is in the hands of a board of trustees, consisting of

Messrs. Basil Cooke, Phil. Renshaw and J. W. Robinson—three well-known amateurs.

Now, Mr. Experimenter, do not delay. Send along your subscription at once.

Contributions to date:

Proprietors Wireless Weekly	£5	0	0
United Distributing	10	10	0
Mr. Quaife	0	10	0
Wireless Weekly Staff	1	3	6
P. Renshaw	3	3	0
Mr. Jones	0	10	6
G. Taylor	1	1	0
J. W. Robinson	1	1	0
F. Basil Cooke	1	1	0
O. Sandel	0	10	6
Mr. Alston	0	10	6
Mr. Saunders	0	10	6
Robert H. Doyle	1	1	0
Miss Day	0	10	6
A. F. Price	0	10	6
R. C. Marsden	1	1	0
A. Date	0	10	6
M. McIntosh	0	10	6
Colville Moore	1	1	0
— Herker	0	5	0
— Sanders	0	1	0
Concord Radio Club	0	10	6

ANNOUNCEMENT

American Radio Apparatus Wholesale Only

PACIFIC ELECTRIC CO.
SECOND FLOOR, KINCOPPAL CHAMBERS
No. 38, MARTIN PLACE - SYDNEY

Thursday, April 17th, 1924.

WIRELESS WEEKLY

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V. J. M. Darby	0 12 6	F. Lucas	0 2 6
Wireless Institute	5 5 0	Mr. Howell	0 10 6
J. Usher	0 5 0	Marrickville and District	
D. T. Hinchin	5 0 0	Radio Club	0 10 6
R. W. Faulkes	0 2 6	Croydon Radio Club	1 1 0
A. Dixon	1 1 0	Leichhardt District Radio	
J. Lendlaw	1 1 0	Society	1 1 0
C. Storm	0 15 0	Newcastle Radio Club	1 10 0
H. Carter	0 5 0	N. P. Olsen	1 1 0
A. Larkin	1 0 0	L. P. R. Bean and Co., Ltd.	2 2 0
E. Mason	0 5 0	John Danks and Son, Pty.,	
N. Ambrose	0 3 0	Ltd.	1 1 0
J. G. Pritchard	1 0 0	F. Hoffnung and Co., Ltd.	2 2 0
Keith Davis	0 5 0	Western Electric Co. (Aus.)	
C. Leaver	0 5 0	Ltd.	2 2 0
R. Seach	0 2 6	Western Suburbs Amateur	
Campsie and District Radio		Wireless Association	1 1 0
Club	0 15 0	G. R. Challenger	0 10 6
A. E. Henry	0 5 0	Northern Suburbs Radio	
Charles Tripp	0 5 0	Association	3 3 0
Wireless Branch (P.M.G. De-		Harringtons Ltd.	1 1 0
partment, Melbourne)	1 8 0	N. L. McKenzie (Vic.)	0 5 0
Illawarra Radio Club	0 10 0	New Systems Telephones	
T. E. Dickenson	0 5 0	Pty. Ltd.	5 5 0
Aust. Radio Relay League	£1 1 0	"Vic."	0 7 0
Goulburn & District Radio		Waverley Radio Club	2 10 0
Club (Member)	4 0 0	Wireless Institute of Australia	
Edison Swan Electric Co.	1 1 0	tralia (S.A. Div.)	2 2 0
W. Harry Wiles	1 1 0	J. Leverrier	10 10 0
Farmer and Co., Ltd.	5 5 0	H. Francis Markell	2 2 0
F. T. S. O'Donnell and		V. S. Liardet	0 1 0
Griffin Ltd.	0 10 6		
O. F. Mingay	0 10 0	Total	£108 17 6
G. E. H. Blanchard	0 10 0		

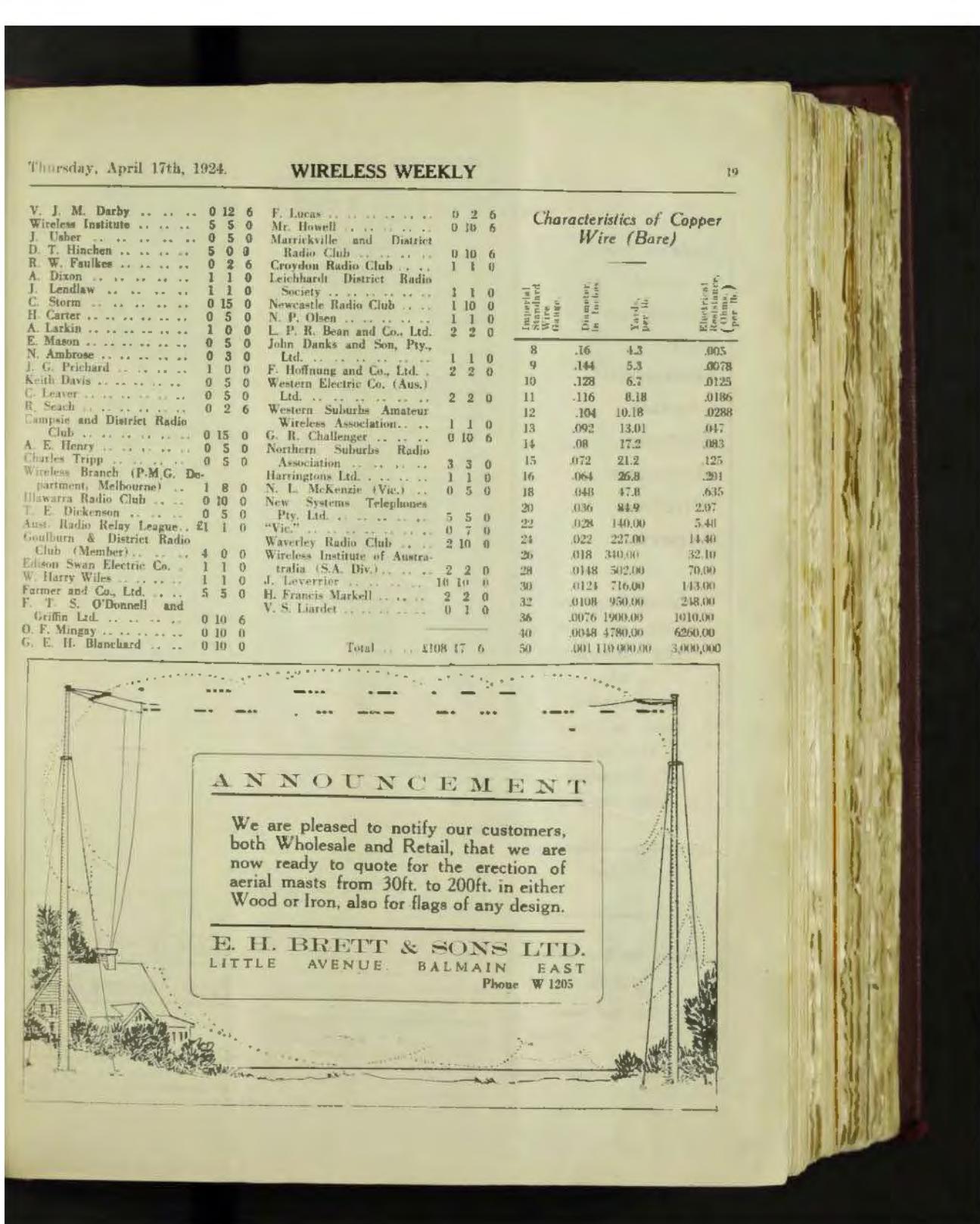
*Characteristics of Copper
Wire (Bare)*

Imperial Standard Wire Gauge	Diameter, in inches	Yards per lb.	Electrical Resistance, ohms (per m.)
8	.16	4.3	.005
9	.144	5.3	.0078
10	.128	6.7	.0125
11	.116	8.18	.0186
12	.104	10.18	.0288
13	.092	13.01	.047
14	.08	17.2	.083
15	.072	21.2	.125
16	.064	26.8	.201
18	.048	47.8	.635
20	.036	84.9	2.07
22	.028	140.00	5.40
24	.022	227.00	14.40
26	.018	340.00	32.10
28	.0148	502.00	70.00
30	.0124	716.00	143.00
32	.0108	950.00	248.00
36	.0076	1900.00	1010.00
40	.0048	4780.00	6260.00
50	.001170.000.00	3,000,000	

ANNOUNCEMENT

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Thursday, April 17th, 1924.

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WIRELESS INSTITUTE OF
AUSTRALIA.

South Australian Division

A meeting of the Junior Section of the S.A. Division was held on Wednesday, March 26th, in the Prince of Wales Theatre.

Owing to bad weather the attendance was not as great as it should have been, but still a very enjoyable and instructive evening was spent.

The chair was occupied by Mr. C. E. Ames, who in opening the meeting requested members to endeavour to get other members and friends to attend these meetings.

Mr. Bland gave a very interesting lecture on the Elementary Principles of Wireless Telegraphy at the conclusion of which he answered quite a number of questions.

These meetings have been started for the purpose of giving instruction and advice to the younger members — although many of the older ones will no doubt benefit by attending, the whole of the evening being devoted to lectures and discussion.

The monthly general meeting of the South Australian Division of the Wireless Institute of Australia was held in the Prince of Wales Lecture Theatre, Adelaide University, on Wednesday, April 2nd.

There was a large attendance and Mr. R. B. Caldwell presided.

The minutes of the previous meeting were read and confirmed.

A letter was received from the Wireless Weekly editor, requesting that information concerning radio activities in this State, be forwarded each week for publication in that journal.

Communications were received from the Victorian and N.S.W. Divisions regarding the restrictions on the use of regenerative receivers, the New South Wales Division requesting that we approach the Chief Manager Telegraphs and Wireless with a view to abolishing the restrictions.

The Division has already approached Mr. Malone on that matter and the Secretary was requested to notify the N.S.W. Division to that effect.

Three new members were elected to membership. Mr. Cook then moved (having given notice at a previous

meeting) that certain of our rules should be altered. Mr. Cook's motion was negatived, only two members voting for the alteration.

Mr. Honnor then moved that a special meeting be called for April 14th for the purpose of considering the rules, this was carried unanimously.

Mr. R. M. Barker late of Radio Central New York, gave a very interesting talk on Hints to Amateurs, giving a number of circuits, which he stated that every experimenter should try out. He also illustrated a number of different ways of connecting up a double-pole double throw switch for various purposes.

Mr. Barker also explained the bridge method of connecting electrolytic rectifiers for transmitting sets and also the audio frequency trap filter circuit which he claims to give excellent results.

He then spoke briefly on broadcasting in America and explained the position of the amateur there.

The Secretary introduced the matter of holding another social and radio dance in the near future, and a committee consisting of Mr. H. L. Austin, Mr. K. Wadham, and Mr. C. E. Ames was appointed to organise this function.

Attention of the members was then called to the Moore Fund which is in operation in Sydney and it was decided that the sum of £2/2/- be donated to help the widow and children of Mr. Moore who unfortunately lost his life while carrying out experiments in transmission.

—
2GR.

Mr. J. S. Marks (2GR) has received word from Stanley Price, of Churchill, Queensland, that his speech and C.W. came through with remarkable punch and clarity one night recently. 2GR has also received excellent reports from Port Moresby and Suva.

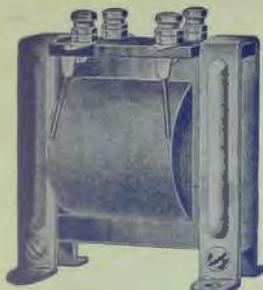
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WIRELESS WEEKLY

Thursday, April 17th, 1924.



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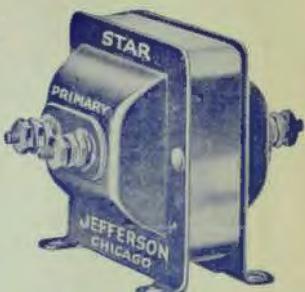


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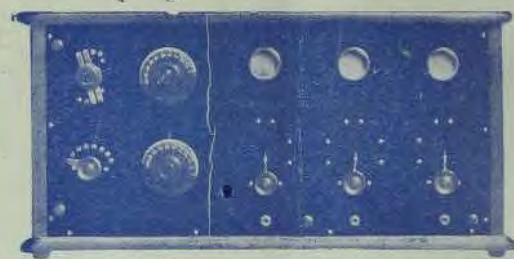
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WIRELESS WEEKLY

Thursday, April 17th, 1924.



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