

WIRELESS WEEKLY

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THE 100% AUSTRALIAN RADIO JOURNAL

Vol. 4
No. 5

REGISTERED AT THE G.P.O., SYDNEY, FOR TRANSMISSION BY POST AS A NEWSPAPER
FRIDAY, MAY 16th, 1924

This Week's Feature: AN EXCELLENT SINGLE VALVER



“Okeh!—it's made by Gilfillan”

The experienced radio fan needs no greater assurance of satisfactory service than the statement—“It's a Gilfillan unit.”

Sold by all Progressive Radio Stores.

—
Australian Representative—

Welby Radio Company
13 ROYAL ARCADE, SYDNEY



Friday, May 16, 1924.

WIRELESS WEEKLY

The Open Set is Coming

Now is the time to purchase your material for the Set that you are going to construct this Winter, for as soon as the Open Set arrives, there will not be sufficient Radio Parts in Australia to supply the demand.

In constructing your Set, we recommend that you use the following:

United Transformers technically perfect and used by all leading manufacturers throughout Australia.

United Condensers, either plain or vernier all capacities.

United Honeycomb Coils, properly wound, correct inductance. Most trustworthy and efficient Coil on the Market.

United Coil Mountings, 2 coil mounting, 3 coil mounting, Coil plugs, Panel plugs, Coupling plugs and Handles.

Signal Fixed and Mica Condensers.

Quick Heat Leaks.

In your Crystal Set use QSA Crystals.

These and other "UNITED" and "SIGNAL" parts are for sale by all dealers
Applause Cards furnished dealers and Clubs without charge.

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

WHOLESALE ONLY

— Manufacturers of —

RADIOVOX SETS

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



ol. 2.

Friday, May 16, 1924.

No. 5

NEW FIELD WANTED.

Listening in a few evenings ago, the following remark was heard: "I am now using .02 of a watt." The strength of the signals was somewhere near maximum. We know of only one experimenter who possesses the delicate and expensive meter necessary to get down to such a fine measurement, and in any case it is questionable whether proper modulation is possible on such low power.

Over twelve months ago a certain Sydney transmitter conducted exhaustive and successful tests on low power. There immediately followed an epidemic of similar tests among the great majority of amateur transmitters, and it seems that many of them have not yet recovered.

Except in certain cases there appears to be an almost total lack of originality, and it should not be overlooked that the true spirit of experimenting is the pursuit of original lines of thought. Imitation, it is said, is a sincere form of flattery, but there is nothing to be gained by working to death

an idea that was fully tried out and dropped months ago by those in quest of other and more advanced experiments.

There is one most important direction towards which transmitters should move, and that is the perfecting of the system of relay stations as outlined in this paper some time ago by the Australasian Radio Relay League, a body which deserves the fullest support. With a little co-operation it would not be long before a chain of highly efficient relay stations was in operation in Australia. The system could easily be worked in conjunction with New Zealand transmitters, and later an extended to America.

Such a system would admittedly be a valuable asset to the country in times of national danger, and its early adoption would demonstrate that Australian transmitters were not less advanced than their American cousins in this direction.

Readers are reminded of the Dance to be arranged by the Strathfield and District Radio Club at the Town Hall Strathfield, on Thursday May 22nd. Dancing from 8 till 11 p.m. Excellent music. A feature of the evening will be a demonstration of a 4 valve set. Visitors can get motor bus from station. Dance tickets, 4/- double, 2/6 single.

Roster for Week ending 21st May, 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. May 15	2 RA 2 GR	2 IJ 2 JM	2 YI	2 UW 2 ZN	2 YG 2 VM	2 ZG
Friday, 16	2 IJ 2 GR	..	2 UW	..	2 ZZ	..
Saturday, 17	2 RA 2 GR	2 IJ	..	..	..	..
Sunday, 18	2 RA 2 GR	..	..	..	..	..
Mon., 19	2 RA 2 GR	2 IJ	..	..	..	..
Tues., 20	2 IJ	..	..	..	..	..
Wednes., 21	2 RA 2 GR	2 IJ	..	..	..	..

The Romance of Broadcasting.

POSITION IN AUSTRALIA.

Popular writers in American and English papers often refer to the "Romance of Broadcasting," and as they trace the various steps through which the art has progressed from the early and crude attempts of less than four short years ago to the wonderful results achieved abroad in these days, the growth of broadcasting does indeed appear as a subject wrapped in a cloak of romance.

In America there are to-day over 500 active broadcasting stations, and statistics show that although practically every month a number of stations close down or go out of existence for various reasons, the number of new stations registered more than compensate for the cancellations. The so-called "craze" period which as is the case with almost everything new or novel, was tacked on to broadcasting, has long since given way to the universal conviction that the science has, like motor cars and jazz, come to stay, and so far as the United States is concerned, broadcasting is just as much a recognised feature of the average home life as is the player piano or the phonograph, although unlike these two instruments, experience has shown that the glamour does not wear off. The interest is too changing; the air so constantly filled with so much that is beautiful and enlightening; and the expense of listening to it all is so small that it is difficult to conceive of the interest ever waning. And it must be remembered that the scope of broadcasting is ever widening; the tendency ever on the uplift.

The present satisfactory position in the U.S.A. was not reached, however, until many and serious difficulties had been overcome. During the "boom" period, when dozens of stations sprang up within a few months, the situation became such that the existing Government machinery was unable to maintain control. With hundreds of amateur transmitters and commercial broadcasting stations working in haphazard fashion and putting out programmes simultaneously on wave lengths, extremely close to each other, "jamming" became a serious menace and it was almost impossible to receive a programme without interference.

Finally, the big radio manufacturers, realising the adverse effect upon busi-

ness that must result, persuaded the Government to review the whole position. In this they were sided by every important newspaper in the country. A commission of radio experts was appointed and upon the recommendations of this commission definite hours were allotted and the wave lengths were mapped out in "bands" so that there was very little overlapping, and consequently a minimum of interference. Broadcasting almost immediately went ahead, and according to the latest figures available, broadcasting stations have an unseen audience of over 5,000,000 listeners in the United States alone, with possibly another million in Canada and Mexico. This number is rapidly increasing and with a view to increasing efficiency and giving the public better service, the big broadcasters are leaning towards the idea of a comparatively few high power stations with greatly increased range, and a pooling of resources to ensure the permanency of broadcasting.

The bigger stations are operated either by the radio manufacturers or by big newspapers, and when it is considered that during 1923 the American public spent £26,000,000 on radio apparatus, and that it is unquestionable that the publicity and good will that accrues to a newspaper through its broadcasting station, are, indirectly, assets of great value and desirability, it can quite readily be appreciated that for the next few years at any rate, the American public may look forward to free broadcasting. Sooner or later, however, it is realised that the question of who is going to pay must be faced, and experts are even now engaged upon that problem.

GREAT BRITAIN.

Whether it is because the Briton is slower to adapt himself to something new, or whether on account of the smaller population of the British Isles the American system was considered impracticable it is difficult to say, but there is no question but that the progress of broadcasting in Great Britain has been comparatively slow, and figures indicate that it will be some little time before the "peak" period is reached. Control of broadcasting is entirely vested in the British Broadcasting Company which charges each licensee a small sum per annum. This Company operates a number of stations

throughout England and Scotland and according to the latest reports, approximately 500,000 listeners have paid the company's subscription. Despite the fact that some time ago, certain of the big radio companies claimed that competitive broadcasting should replace the existing one big company system, and the fact that those unfamiliar with the establishment and operation of the B.B.C. have referred to the company as a monopoly, it is generally conceded that the British scheme has much to commend it and that British broadcasting has reached a very high plane indeed. It is stated that the B.B.C. is a progressive concern, eager to give the public the best possible service and that the leading technical brains in England, are continually engaged upon the problem of greater efficiency in Broadcasting. Isolated reports that the Company is suffering financial loss do not appear to be confirmed by those capable of rendering authoritative opinion.

AUSTRALIA.

The broadcasting situation in the Commonwealth has, after nearly a year of hickering and trouble, reached a deadlock, the outcome of which at the moment it is impossible to prophesy.

The scheme proposed by Mr. Fisk at the Melbourne Conference last year, which embodied the sealed receiver principle was almost unanimously adopted mainly because it was generally conceded at the time that Mr. Fisk was an authority on the question and because of his proposal which was based upon a careful study of American and British systems, and was believed to be the most workable proposition when the conditions peculiar to Australia were considered.

Much publicity was given to the statement that the Australian broadcasting regulations by avoiding on the one hand the chaotic conditions said to exist in the United States; and the so called monopolistic scheme in Great Britain on the other, would be a model for all the world to admire. Theoretically no doubt it was, because it provided a means whereby a broadcasting company would be assured of revenue; and an allotment of wave lengths preventing a monopoly of the ether by any one concern. In any case it was agreed that the regulations should be given a trial. Within a

BROADCASTING Solves Your Home Entertainment Problems. "COL-MO" Receiving SETS. from £4 Complete.

few months two broadcasting stations were operating in Sydney and licenses had been applied for in almost every State of the Commonwealth.

Unfortunately for the progress of Australian broadcasting, the public evinced a strong disinclination to purchase sealed receivers, the main objection being that they imposed intolerable limitations upon the enjoyment of broadcasting. The newly formed association for Developing Wireless in Australia, New Zealand and Fiji, which now numbers among the membership hundreds of wireless traders in all parts of Australia, took up question and upon the grounds that the regulations had proved a failure, demanded a fresh conference which was finally granted by the Postmaster-General. At a general meeting of the Association, held just prior to the Conference, the majority of the members approved a scheme for competitive broadcasting which was subsequently recommended with the exception of minor alterations, by the conference to the P.M.G.

A section of the Association, however, representing a number of firms which maintain that the competitive system is not the most satisfactory solution, disassociated itself from the proposals of the Conference, and independently submitted to the P.M.G. a scheme providing for one big broadcasting authority. Although it is claimed by many that this scheme constitutes the setting up of a monopoly which may hamper the progress of broadcasting, it is worthy of serious consideration, and it is stated that, when advices from Melbourne indicated that the competitive system was not acceptable to the P.M.G., the Association members unanimously decided that, as an alternative, the one big broadcasting authority proposal would be supported by them.

Meanwhile, a report was received in Sydney that the P.M.G. had recommended to the Federal Cabinet a scheme drawn up by a group of firms which recently resigned their membership of the Association, but this scheme as far as can be ascertained, was rejected by the Cabinet upon receipt of further recommendations by that section of the Association advocating competitive broadcasting.

There are therefore, three proposals from which to choose, all of them admitting the principle of open receivers.

1. Competitive broadcasting by which it is claimed that by virtue of that competition which is the essence of all good business, and by the apportioning of revenue so that the most progressive company receives the

greatest reward, the public will get the best possible service at a minimum subscription fee.

2. One big broadcasting authority.—This, briefly, proposes a broadcasting scheme along lines similar to but in advance of those adopted by the British Broadcasting Company. It proposes that all broadcasting should be controlled by the one authority and that a Board representative of the public, the broadcasting authority, and the P.M.G. shall ensure satisfactory services. Under the scheme the whole of the revenue with the exception of a small margin, would be devoted to the extension or added efficiency of existing services. If, after a period, it were found possible to reduce the subscription fee without jeopardising the progress or efficiency of broadcasting, such reduction would be made.

3. Proposed Australian Broadcasting Company. This proposal on the face of it, allows for six stations to be operated by the Company in various parts of the Commonwealth for a period of three years, after which the position would be reviewed and the question of opening up further stations, considered. Subscribers would pay a fee depending upon their distance from the broadcasting station.

With the problem of the settlement of the broadcasting tangle still unsolved, Mr. Gibson has departed to Stockholm, leaving upon the shoulders of his unfortunate successor the task of recommending a final scheme which will: 1. Be acceptable to the public; 2. Ensure a satisfactory return to the broadcasters; 3. Dispose of the matter of patent rights, and 4. Ensure permanent and satisfactory broadcasting.

General consideration of the whole complex situation seems to make one fact plainly evident; that the romance of broadcasting in Australia has been sadly interrupted; in fact it is a tragedy.

We have much pleasure in announcing that Mrs. W. L. Hamilton, who recently underwent a serious operation at the Walmer Priente Hospital, Murrickville, is now out of danger and improving slowly. Mrs. Hamilton is the wife of the President of the Murrickville Radio Club.

Flat: "Over in California we have a lilac bush fifty feet high."
Flatter: "I wish I could lilac that."

CORRESPONDENCE.

YES, MR. MACLURCAN IS NOT LIABLE.

Dear Sir,—I note in your last issue that a Sydney experimenter is considering the advisability of bringing an action against me for causing the death of two of his best performing valves.

This fills me with consternation, and I hasten to prove an alibi.

In the first place I was not at home on the evening in question. I forget which evening it was—but whichever one he says—then I was not at home. Furthermore, there was a friend with me that night at 2CM, and he can prove that I was not there.

Moreover, the title of the second song was not as stated. The word "though" was not in it.

In addition to this he could not have recognised my voice, because I had disguised myself with a pair of false whiskers, a couple of "ziffs," three "beavers."

You stated that "the chair overbalanced." Now, I doubt if there was a chair in the house—very few experimenters have chairs—but if he still persists in taking action, then I shall send my solicitor to interrogate the chair in question—we may then get to the seat of the trouble.

If I have said anything in the foregoing that I'm sorry for—I'm glad of it. But to save further trouble, if your correspondent will call on me I will be only too pleased to give him two more valves—perfectly good ones, too, though the filaments may be slightly bent.—Yours faithfully,

CHAS. MACLURCAN (2CM).

JAPANESE SCHOOLBOY APTLY DEFINES RADIO.

Wallace Irwin, in his "More Letters of a Japanese Schoolboy," published by Putnam's, thus describes a receiving set: "On table befront of him sat one black suit case all covered with nickel-plated science. It contained a window with electric bulbs doing so inside. It contained silver pushers, pullers, arrows and Kodak supplies. It contained so many wires that I was sure it was connected with Edison somewhere. It had a horn with its mouth wide open, as if to speak. It had one of those switchboards which enable hon. telephone operatress to get your number wrong 13 times out of 11. Taken altogether, this was a radio."

Did you hear that one of 2 CM's on Sunday night? "The Flapper's Lament, or the Lost Camisole."

Up-to-date RADIO EQUIPMENT, of the First Quality, at Competitive Prices. "COL-MO," 10 Rowe St., Sydney.

WIRELESS LONG-DISTANCE RECEPTION.

A radiogram has been received from Rabaul, New Britain, stating that Farmers' Broadcasting Service, Sydney, was received there perfectly on the evening of May 5th.

The whole program including chimes children's bedtime stories, and the musical numbers of the opera, "Ma Mie Rosette" came in exceptionally well, the applause of the audience being clearly heard.

The distance covered was over 1,800 miles.

Mr. J. D. Robertson, of Whakatane, writing under date of March 9, to "Aerial," says:—"KGO, Oakland, California, is becoming a familiar friend. On four successive Sundays I have listened to him sending out dance music by Henry Halstead's jazz orchestra from the Hotel St. Francis. To-night I heard him state that KGO had received information that their transmission to 2 LO, London, had been successful. The voice of KGO's announcer was very distinct, and sounded as though the

speaker was alongside me whispering in my ear. All the announcements were very loud and plain. Last Sunday I heard the dancers disperse as the bell struck 1 a.m. Pacific Coast time) to close down. I also heard them clapping to make the orchestra strike up when it stopped during a dance. Radio transmission is developing rapidly and it is approaching the stage of practical worth-while broadcasting. KGO can evidently span about 14,000 miles—roughly 8,000 miles to London on one arm and 6,000 miles to New Zealand on the other. Probably with relayed transmission it could be heard all over the world instantaneously."

LIAR'S COLUMN.

Dear Mr. Editor: I have invented a new radio set that will undoubtedly cause a revolution in the radio world. I could easily make a cold million with it, but I prefer to give the secret of my discoveries to the radio fans.

Everybody knows that a domestic cat produces electricity; well, I applied that principle to radio construction and transformed a plain, common cat into

a wonderful battery and detector. I first placed the cat comfortably upon a table and began to rub her until sparks were produced. Then I placed a crystal, connected with the ground, near the cat's whiskers, and attached the earphones to the tail, using the point of the tail as an aerial, and I heard distinctly a concert broadcasted by the Symphonic Orchestra in Cambodia.

The only objection was that the cat thought at times that I was petting her, and purred, and that caused static and wave variations.

Turning the cat's ear from left to right, you can obtain different degrees of intensity.

I was so pleased with the results of my experiments, that I invited a group of friends to listen in, but the apparatus had gone up to the roof and refused to come down, so I utilised a lady friend's golden hair as an electricity producer, and it also worked wonders. Nevertheless that battery was not very reliable on account of static interference and her complaints that I was spoiling her permanent wave length.

LEO ALVA.

Results are Obtained with Efficient Equipment

Our Apparatus is Reliable and Prices are Right

- | | |
|--|--|
| Aerial wire from 2/9 per 100 feet. | Moveable Condenser Washers, 10d. doz. |
| Accumulators from £1/1/-. | Set of Spindles, from 3/- per set. |
| Aerial Earth Switches, from 3/- each. | Dials, from 2/9 each. |
| G. R. Honeycomb Coils, from 4/9 | Filament Rheostats, from 6/- each. |
| De Forest Duo Lateral Coils, from 11/3 M.T.O. | Grid Leaks, from 2/9 each. |
| De Forest 3 coil panel mountings, 26/-. | Loud Speakers, from 67/6 each. |
| De Forest Coil Plugs, 4/9. | Plugs, from 2/9 each. |
| Variable Condensers, .0005 Panel, from £1/2/6. | Rotary Switches, from 3/6 each. |
| Variable Condensers, .001 Panel, from £1/7/-. | British Valve Sockets, from 2/- each. |
| Vernier Variable Condenser, .0005, from 40/- | American Valve Sockets, from 3/- each. |
| Vernier Variable condenser, .001, from 43/-. | Audio Transformers, from 25/- each. |
| Condenser Plates, 3in. dia., 1/9 doz. | Valves, Mullard, 20/- each. |
| Terminals, from 3d. each. | All American Valves, 35/- each. |
| Fixed Condenser Washers, 5d. doz. | |

We have stocks of Experimental Transmitting Equipment at reasonable prices.

BURGIN ELECTRIC COMPANY

WIRELESS ENGINEERS and SUPPLIERS

Showrooms and Sales Dept. 1st Floor, Callaghan House, 391 GEORGE ST., SYDNEY. Tel. M 3069

Manufacturers of the Famous "BURGINPHONE" Receivers

A SIMPLY-MADE ONE VALVE RECEIVER.

BY THE LITTLE AMERICAN.

Can you make a set? I'll say you can. Here is a description of a set well within reach of the average amateur experimenter. This was one of the first tube sets I ever constructed, and looking back over the number I have since made I think none over brought the satisfaction and pleasure that this particular set did.

I will describe the details of construction briefly and I want readers

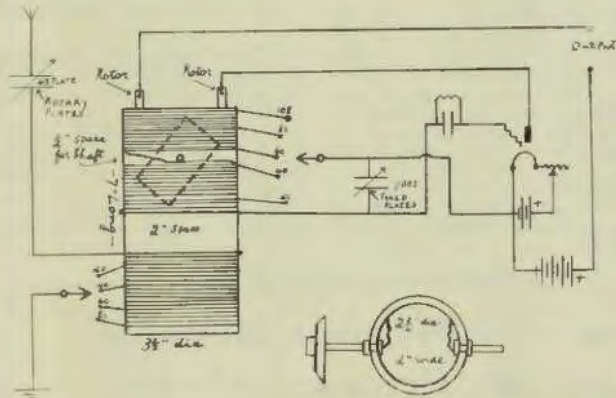
stator tube, 1 1/2 in. from top, and the rotor was fitted in position.

Next I commenced from the other end of the stator tube and wound on a primary winding of 80 turns of No. 26 D.C.C. wire, tapping at the 20th, 40th, 60th and 80th turns. Then, leaving a 2 in. space I wound a secondary of the same gauge wire, placing 40 turns below the rotor shaft and the balance above, taking taps from the

filament lighting. With a few inquisitive friends and fun makers plying me with foolish questions, I proceeded to make the outfit "perk," but true obstinacy, "perk" it would not. Naturally I received my share of compliments from the gang until at last she acted reasonable.

To those amateurs who make this set I would say, don't give up the ship if the results are not obtained immediately because there are fine adjustments to line up and the tuning is very sharp. But, oh boy, 'tis a grand and glorious feeling when she breaks loose. She sho can "perk."

I have made several of these sets since using bakelite tubing and panel, and for an amateur experimenter's set I really do not believe it can be beaten.



to bear in mind that at the time of building, parts were very hard to get; in fact some were quite unprocurable.

As a cardboard tube 3 1/2 in. in diameter and 7 in. long was necessary, I went to a grocery store and found a certain breakfast food put in a round container of those dimensions. Having donated the contents to charity I put the tube into use as a stator.

A rotor was next necessary, and as there was not time to have a wooden rotor turned up at the carpenter's shop, I procured a cardboard tube 2 1/2 in. in diameter and 2 in. long. This I made into a rotor by threading two pieces of 3/16 in. brass rod for shaft and winding on the tube 40 turns of No. 26 D.C.C. wire; 20 turns on each side of the shaft. The leads were brought out by soldering on to the inner ends of the shaft as shown in diagram. Next two holes were bored in the

20th, 40th, 60th, 80th and last turn, 108th. Readers making this set will find it necessary to bank wind the secondary above the rotor shaft, but as I was not familiar with this method at the time, I wound 20 turns on and then doubled back with a second layer and so on until the full number of turns were on.

This done, I made a small wooden support to hold the tubing to the panel. Bakelite being scarce, my panel was made of 3 ply veneer, which gave good results especially in dry weather. Mounting this in an upright position with the two condensers neatly arranged one on each side; switch arm under each condenser and the tube socket to one side, the completed set presented a very neat appearance indeed.

The various parts were wired up as per diagram, and using the only tube procurable in town, I fitted this in with a dozen dry cells as B battery, and an automobile storage battery for

580,000 LISTENERS IN ON BRITISH RADIO.

Great Britain has about 580,000 licensed "listeners-in," compared with only 30,000 a year ago, and broadcasting is still increasing. This year manufacturers expect a large increase in business.

About 225,000 individuals who first took out temporary licenses were later given constructor's licenses, which apparently are permits to build sets. This type of license seems popular, as between 32,000 and 75,000 per month were issued towards the close of 1923.

All told, 165,000 British broadcasting licenses were issued to owners of British manufactured sets, 75 per cent. of whom are mostly located in popular districts, a large majority of set owners are satisfied with simple crystal sets.

ADDITIONS TO N.S.W. CALL SIGNS.

The following have been granted transmitting licenses since the publication of our list:

2GF—Chilton G.F., Radio Station, Pennant Hills.

2LR—Lismore and District Radio Club, Lismore.

TRUE, DISTORTIONLESS MUSIC IS A FEATURE WITH N.H.M. CRYSTAL RECTIFICATION.

Broadcasting and Transmitting Stations in New Zealand.

The following license not previously advised has been issued to the licensee:—

Transmitting and Receiving Station (Grade I.)

Invercargill Radio Club, Invercargill, 15 watts 160, 170, 180 metre .. 4AP

The following were advised as "licenses forwarded to District Radio Inspector": They have now been issued to the respective licensees:—

Transmitting and Receiving Station (Grade II.)

Aubin, Rolf Ernest Lempriere, Auckland, 5 watts 140 metres 1AU

Crubb, Arnold Henry McLeod, Dunedin, 5 watts 140 metres 4AL

The following additional licences have been forwarded to the District Radio Inspector, but advice of issue has not yet been received:—

Transmitting and Receiving Station (Grade II.)

Clarkson, Thomas Reynolds, Hastings, 5 watts, 140 metres 2AR

Goodwill, Charles Sievier, Hamilton, 5 watts 140 metres 1AI

Sherson, James Reginald, Hamilton, 5 watts 140 metres 1AZ

IT'S UP TO YOU.

Not a day goes by but we hear—from listeners-in—complaints about interference caused by the careless or inexperienced user of the regenerative set.

There is no need for this nuisance. If you do not know how to operate your set, call in some radio fan who

does, the woods are full of them, quick tuning of your dials does you no good and causes great annoyance to many others in your vicinity. If you are trying to bring in distant stations, it is only by careful and slow tuning that you are able to tune them in; a fraction of an inch makes all the difference.

How would you feel if some auto-user parked outside your door and tooted and backfired for an hour? You know what you would do you would go and tell him to quit, and if he did not do so, you'd "knock him for a goal," if you were big enough, or call a policeman.

The listener-in cannot hit back, he is helpless under present conditions, nor can he call a "Bobby", for he does not know from whom or where his interference is coming.

Let us all try and be fair and play the game. If you do not understand how to operate your regenerative receiver without causing annoyance to others, ask your dealer to show you.

COASTAL RADIO SERVICE

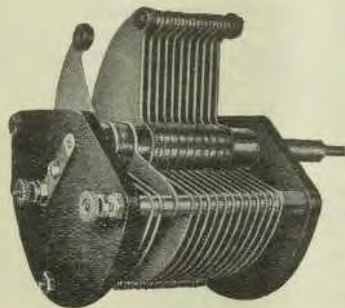
Staff Changes.

Mr. F. J. Gowlett, radio-telegraphist, has been transferred from Broome radio to Esperance radio on completion of his term of tropical service.

Mr. A. D. Hosken, radio-telegraphist, has been transferred from Darwin radio to Perth radio on completion of tropical service.

Mr. L. Luscombe, radio-telegraphist in charge, has been transferred from King Island to Port Moresby.

Radio Parts — Prompt Service — Lowest Prices —



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Harringtons LTD

- Contact Points
- Switch Stops
- N. P. Binding Posts
- Insulated Knob Binding Posts
- Insulated Lettered Knobs
- Binding Posts
- Double Binding Posts
- Contact Connectors (Pigtails)
- Multiple Telephone Connectors
- Battery Clips
- Lead Ins
- Dials Insulated
- Vernier Attachments
- Telephone Plug Double (Round)
- Jacks
- Switch Levers
- Inductance Switches
- Rheostats

- Antenna Insulators
- Sq. Buss Bar Tinned
- Round Buss Bar Tinned
- Spaghetti Tubing
- Variable Condensers
- Vernier Condensers
- Glass Enclosed Grid Leaks
- Phone Condensers
- Moulded Variometers
- 180° Variocouplers
- Hardwood Rotars
- Phonograph Attachments
- Phone Cords
- Crystals
- Loud Speakers
- Crystal Detectors Mounted
- Copper Lugs
- V.T. Sockets
- U.V. 199 Sockets

386 GEORGE STREET,
AND IN ALL STATES

Mr. C. E. Hutchinson, radio-telegraphist, has been transferred from Darwin to Esperance radio on completion of his term of tropical service.

Mr. S. J. Connor, radio-telegraphist, has been transferred from Perth radio to Darwin radio.

The relieving officers for the coming winter season at Willis Islets' Radio Station left Sydney on the 1st instant per the S.S. "Merinda."

The party consisted of Mr. J. J. Hardy as officer in charge and Mr. T. Moore as caretaker.

The relieved officers, Messrs. A. G. Kempling and N. Stockton, are coming south, and Mr. J. Hogan, Meteorological Observer, will return to his headquarters at the Meteorological Bureau, Melbourne.

One of the most interesting personalities we have met is Mr. I. L. Rawn, export manager of Gilfillan Bros. Inc. (U.S.A.). Having just completed a tour through Central and South America, and New Zealand, Mr. Rawn will visit all Australian cities and return home via Java and China. His mission is to consolidate Gilfillan interests in various parts of the world, and to arrange for better service to the different agencies.

In commenting upon broadcasting in the United States, Mr. Rawn said that it was impossible for the uninitiated to imagine the state of perfection to which months of research and experiment had raised the programmes put out by the many high power stations throughout America. Primarily regarded as a craze, it was now realised by all that broadcasting had assumed the proportions of a necessity in the home. The use of broadcasting for the advance of education and the higher arts is now a phase, the possibilities of which are the subject of serious study by the Government; and those who regarded broadcasting only as an entertainment are rapidly changing their outlook. The very best talent in the way of music and the other arts is always available, and in very few cases is payment asked by those who broadcast musical items, lectures, etc.

After over three years of broadcasting, the manufacturers of radio parts—said Mr. Rawn, are unable to supply the demand, and in the case of the Gilfillan plant, which occupied a space of over 10 acres, there are sufficient orders in hand to keep the factory going at capacity for the next six months.

South America is rapidly opening and extending radio services, and quite

a number of broadcasting stations are active. A company known as Radio Sud America, at Buenos Aires is the biggest concern. It is controlled by an international group of firms representing Marconi Co. of England, Radio Corporation of America, German Telefunken Company, and Compagnie Telegraphic Sans Fils, of France. This group is installing and will control the Commercial Wireless Services, which will employ a chain of high power stations linking North, South and Central America.

Mr. R. Allsop (2YG) states that his signals are being received by 7AA (Tas.) on 3 valves at loud speaker strength.

"Does your sweet mama know anything about automobiles?"
"I should say not. She asked me last night if I cooled the engine by stripping the gears."

WANTED. — Boy about 17 or 18 years. Must have experience in wiring and assembling Radio sets, etc., Apply Works Manager, Newton Lane, off Sussex St., near King St. Colville-Moore Wireless Supplies Ltd.

ANNOUNCEMENT

We are pleased to notify our customers, both Wholesale and Retail, that we are now ready to quote for the erection of aerial masts from 30ft. to 200ft. in either Wood or Iron, also for flags of any design.

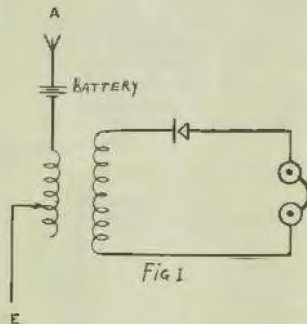
E. H. BRETT & SONS LTD.
LITTLE AVENUE, BALMAIN EAST
Phone W 1205

THE ELUSIVE CRYSTAL

(By "Crystalis.")

Whilst experimenting with magnetite (spring catwhisker), the circuit shown here (Fig. 1) gave really surprising results.

A small local battery of two dry cells was placed in the primary circuit in series with the A.T.L. Signals prior to the insertion of the battery, were very weak, the crystal being almost insensitive. Yet, when the current was passed through the A.T.L., a remarkable sensitivity was apparent. The crystal "sparked" over its entire surface and reception improved to almost single-valve strength. The effect of the applied current seems to be that it induces a magnetic field in the aerial circuit. This is apparently the case, as the improvement in reception is noticeable for some time after the battery is removed from the circuit.



I have tried a 45 v. H. P. battery, but results were no better than with the dry cells.

This circuit is well worth a trial. The actual amplification may be small—but it certainly exists.

Crystal Rectification.

The properties of the crystal as a rectifier may be tested in the simple circuit (Fig. 2).

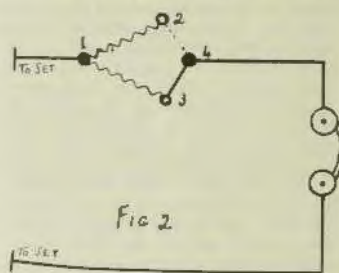
(1) represents an ordinary 'phone terminal, in which two catwhiskers are clamped. (2 and 3) are crystal cups. The actual crystal used is a matter of indifference. Both crystals connect to 'phone terminal (4).

Crystal No. 2 is first adjusted until signals are full strength. Upon adjusting the second crystal, it will be noticed that signals (in certain spots) disappear completely.

Although the consensus of expert opinion seems to be that the crystal

and whisker form a "Thermo-couple," this seems to disprove it.

The rectified current is passed through the first crystal until the second crystal adjustment is made. Clearly proving that the second crystal re-transforms (so to speak) the direct current into A.C. again. The current, in both crystals, passing in a direct



path from cup to whisker, through the crystal and not on the surface, as many experts claim. Galena furnishes an excellent medium for testing this circuit.

According to private advices from California, K.H.J., the broadcasting station of the Los Angeles Times, will shortly conduct special tests with Australia.

CALLS HEARD.

Allan T. Hutchings, Callawadda, Vic. has logged the following 1RF, detector and 2AF:

Victoria: 3BM, 3BC, 3BH, 3BQ, 3BL, 3AM, 3AF, 3HH, 3JH, 3JU, 3XA, 3XO, 3AL, 3LM, 3BD, 3SW.

New South Wales: 2AL, 2ZG, 2GQ, 2UW, 2YI, 2JM, 2BC, 2CM, 2KC, 2ZZ, 2YG, 2DS, 2GF, 2IU, 2YM, 2CR, 2VM, 2AR.

South Australia: 5BQ, 5AH, 5AI, 5AD, 5DA.

Tasmania: 7BN.

New Zealand: 4AA, 1AA, 2AQ, 2AP, 2AC, 4AH, 1YA.

5BQ, 5DA, 2YI, 2ZG, 2GQ, 2UW, 2CM, 1YA heard QSA on lone. Also most of the Melbourne stations—150 miles.

During the last three weeks L. Schultz (2LO) has worked Z1AA, 2BM, 2HM, 3BL, 3JP, 3BD, 5DA, 7AA, 7BK.

The following have been received. Z2AI, 3DD, 3BG, 3JU, 3JH, 4GE, Z4AA, Z3AF and 6AG (W.A.). Mr. Schultz would welcome reports from country experimenters.

F. Bassett, Bexley, logged the following during April, on a single valve receiver:

N.S.W.: 2HM, 2GQ.

Vic.: 3DD, 3BD, 3BM, 3JH, 3X1, 3HH, 3BV, 3JN, 3EP, 3ZL, 3BL.

S.A.: 5BQ, 5BC.

N.Z.: 4AA, 1YN, 4CQ, 1YB, 2AF.

Tas.: 7AA.

U.S.A.: 9MC.

TWOCM—TWOUW, TWOYGTWO JMTWO YI

Air Gas. You hear it every night, almost as often as you hear about my wonderful specials:—

Genuine Baldwin 'Phones	£3 17 6
Fixed Condensers	1 6
Jefferson (41)	1 14 0
43 Plate Var. Condenser	1 5 0
Vernier Rheostat (K. and C.)	9 6
Plugs (take 2 pair 'phones)	3 9
'Phones, from	1 5 0
Dials, from	1 4
U.V. 199 Sockets	3 6

THAT'S ONLY A FEW COME AND SEE.

PRICE'S

220 OXFORD STREET, WOOLLAHRA.

(Forget All Others.)

'Phone: Wav. 451.

Open Every Night till 8 p.m.

OUR STOCK OF "MAR-CO" PARTS IS WORTHY OF YOUR INSPECTION.

C. A. Gorman (2EC) Rockdale, N. S.W., sends us his D.X. report. The following stations have been logged on one H.F. and one detector:

America (C.W.): 2ZL, 3KDM, 3AR L, 6AAO, 6AOS, 6ARB, 6BB, 6CGW, 6ADT, 6XAD, 6KA, 6JD, 6UT, 6CBI, 6AGK, 6AVR, 7DP, 7AMZ, 9ZT, 9MC, 9MT.

N.Z. (C.W.): 1AA, 1AK, 1AC, 1AX, 1AL, 2AA, 2AC, 2AQ, 2AS, 2AF, 2AJ, 2AT, 2AP, 2AE, 2AK, 2AD, 2UX, 2XA, 3AA, 3AC, 3AF, 3AD, 3AK, 3AM, 4AA, 4XG, 4AD, 4AC, 4AH, 4AG, 4AK, 4AP.

Vic. (C.W.): 3BD, BC, CB, BY, BL, BQ, DD, DP, HP, EP, JU, JII, III, BU, EF, QW, DB, RY.

Tas. (C.W.): 7AA, BR, BN, BK, A B

Q'land. (C.W.): 4GE, BC, CK, Fone: 4BC, 5AH, 5BQ, 3BL, 3BQ, 3RY, 3DB, 3BD.

N.Z. (Fone): 3AM, 3AA, 4AA, 2AT, 1YA, and 1BC.

He (teaching her to drive): "In case of emergency, the first thing you want to do is to put on the brake."

She: "Why, I thought it came with the car!"—"Purple Parrot."

BROADCASTING TO CONTINUE.

Despite Row over Patents.

With reference to the patents' dispute between the Radio Corporation of America and the Broadcasters, the Washington Herald says the following:

Whatever may be the outcome of the suit now pending concerning alleged infringement of broadcasting patents, owners of receiving sets in Washington may rest assured there will be no curtailment of the pleasure and entertainment they have so long enjoyed.

Secretary Hoover has made it plain that radio broadcasting will go on if he has anything to say about it, and the fact is that, in his official position, he has practically all to say about it.

"I believe it safe to say, irrespective of claims, under patents on apparatus, that broadcasting will not cease and neither will our public policy allow it to become monopolized," said Secretary Hoover. "In the licensing system put in force by this department, the life of a broadcasting license is limited to three months, so that no vested right can be obtained either in a wave length or a license."

Secretary Hoover said it would be most unfortunate for the American people to whom radio has become an

important incident in life if control of air should come under the hands of any single corporation or group.

"From the standpoint of the people's interest, the question of whether or not broadcasting is for profit is immaterial," continued Secretary Hoover.

Therefore, if you have a radio set, just keep on tuning in and you can be assured of getting what you want from where you want it. The number of broadcasting stations is now and will continue to be on the increase rather than the decrease. If you have not yet bought your radio set, do not let the so-called "squabble in the air" deter you.

Wireless Experimenters

Call or write for full particulars of long-range 2 valve Sets, from £12 to £16. A special line of 1 valve Sets at £8/10/- each.

The above are complete in cabinets, with valves, phones and batteries. These sets are equal to any purchased elsewhere at double the price. Demonstrations every evening 7 till 10. A. E. Clarke, "Marsden, 55-54 Botany St., Waverley, near Bondi Junction. Licensed Radio Dealer.

FEDERAL APPARATUS

NEW SHIPMENT JUST ARRIVED

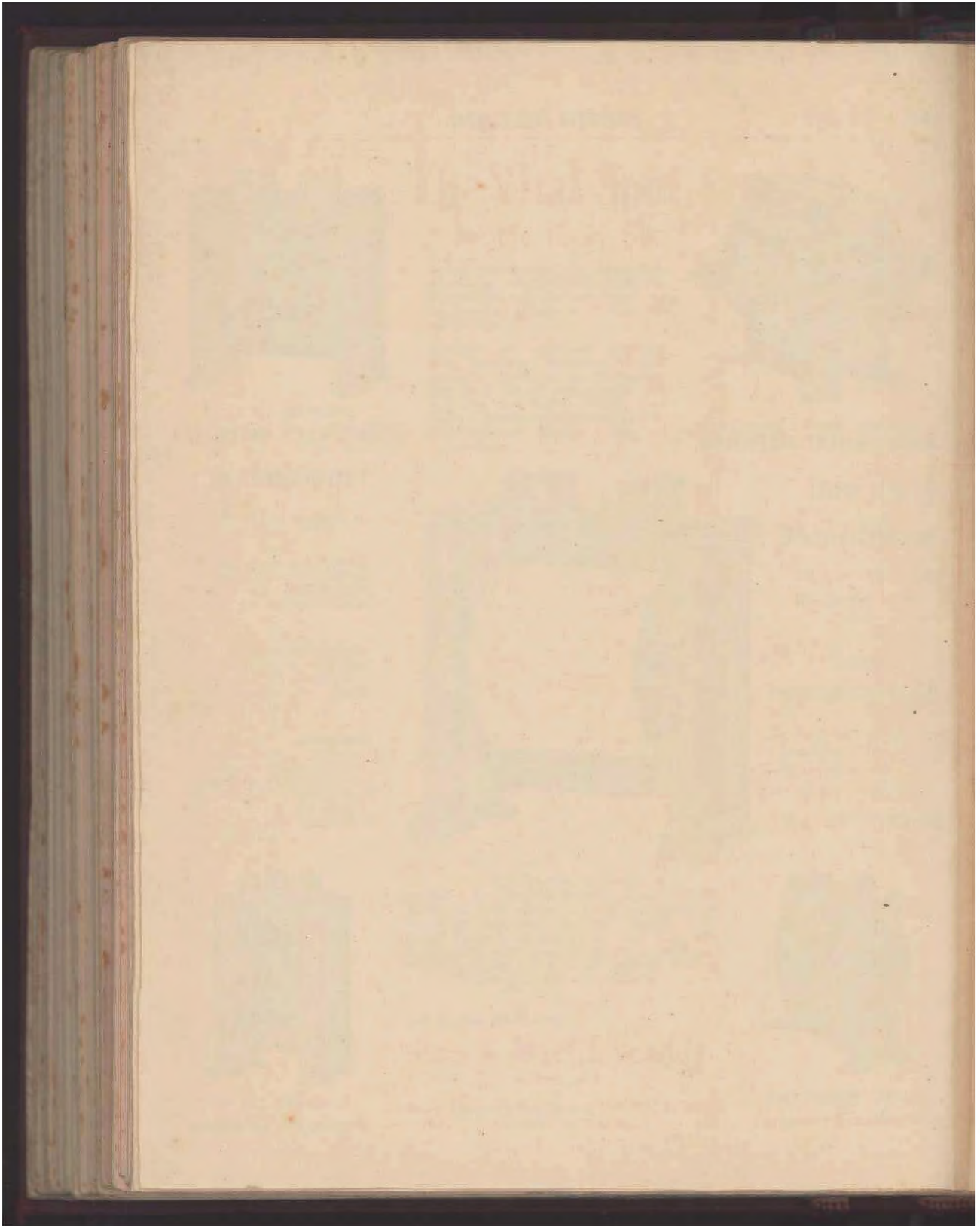
Sockets, panel mounting	9/6	Jacks, open circuit, filament control	6/10
Potentiometers	9/6	Jacks, double circuit, filament control	8/-
Condensors, 11 plate 26/6; 21 plate 39/6		Transformers, Audio	27/6
43 plate	39/6	Transformers, Radio 175-600	42/6
Plugs	6/6	Knob and Dial, 4in.	8/-
Jacks, open circuit	5/-	Variometers	45/-
Jacks, double circuit	6/6	Head 'Phones, 2200 ohms	55/-
		Manhattan Head 'Phones, Special Price	30/-

We also carry FEDERAL Meters, Microphones, Chokes etc., for transmitting.

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



Demonstrations of Broadcast Reception Daily.

Wireless Supplies Ltd.

Suppliers of "Volvox" Illustrated Range Gram- and Sets.

THE HOME OF THE "VOLVOX" RADIO APPARATUS

BROADCAST SHOWING SETS
The apparatus has been tested, and has given surprising results as far north as Darwin, and as far south as Hobart, and we therefore have much pleasure in placing our

GUARANTEED RANGE BROADCAST SETS
before the public.

Ask to See Our Correspondents.

THE VOLVOX SET—This set has been set up in Hobart and Sydney, and is being used for the purpose of demonstrating the range of the set. The set is a complete set, and is being used for the purpose of demonstrating the range of the set.

THE NATIONAL BROADCAST SET—This set is being used for the purpose of demonstrating the range of the set. The set is a complete set, and is being used for the purpose of demonstrating the range of the set.

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THE NATIONAL BROADCAST SET—This set is being used for the purpose of demonstrating the range of the set. The set is a complete set, and is being used for the purpose of demonstrating the range of the set.

WE STOCK ONLY "OPEN" SETS
These sets are the only ones that are allowed to be sold in Australia. They are the only ones that are allowed to be sold in Australia.

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KEEP THIS LIST BY YOU FOR FUTURE REFERENCE
This list contains the names of the various sets and their prices. It is a very useful list, and should be kept by every radio enthusiast.

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WIRELESS SUPPLIES LTD.

21 ROYAL MADE, SYDNEY

PRINTED BY THE PUBLISHERS

TURN TO PAGE 12 FOR CONTINUATION OF PRICE LIST

THE EXPERIMENTERS' GUIDE.

There are various types of radio fans. The radio experimenter is one who has nourished rather than outgrown that creative instinct which in childhood prompted him to build the blocks and, having felt the monetary thrill of prodigious achievement, demolishes his noble work with one good blow.

The field of radio experimentation is one of those great open spaces. Whether one enters it to revolutionise the art or just for the fun of building something that works, only to tear it down and replace it with something that may not work, the success of the venture depends mainly upon three open secrets, to wit: The amount of imagination with which one is blessed; skill, which comes with practice and patience; and, third, the material with which one works.

It is with the third principle that this article has to deal and it is principally to the beginner that it is addressed. Before taking the plunge it would be well to memorise the following quotation from Shakespeare, substituting the word "parts" for the word "habit":

Costly, thy habit as thy purse can buy,
But not expressed in fancy.

Many a seasoned experimenter, asked concerning the name or function

of mysterious looking objects in his laboratory, has answered, "Oh, that is just a pile of useless gear I collected before learning that the best is none too good."

The most expensive is not always the best, but assuming that there is some foundation for the oft repeated maxim, "You can't get something for nothing," price is a good general guide to merit.

Condensers are a case in point. The more expensive makes on the market to-day are by far better.

The radio amateur who builds his own set has become critical of workmanship and discriminating on points of efficiency. He will no longer purchase a variable condenser with friction connected between the movable part and wire terminal. It must be properly "pigtailed," that is, must have a flexible and neatly soldered connection between the stator and binding post.

Manufacturers who have come to realise this are turning out condensers with metal bearings so that the rotor does not wobble. If the axis simply is stuck into a hole in the bakelite, the condenser is not durable. The hole will enlarge so that the movable plates will not remain in any fixed position. There can be no play in the well balanced, solidly constructed variable condenser. Always buy those

the capacity of which is rated in microfarads and not simply by the number of plates.

In selecting fixed condensers squeeze the sides between the thumb and forefinger. If it is not perfectly solid its capacity is no more fixed than the old-time telescope suit case.

Other apparatus with movable parts such as variometers and varicouplers should be purchased with the same care. The latter should be wound on bakelite and not too heavily encased in shellac.

Vacuum tubes are as important to radio as carburetors are to automobiles.

The characteristics of the various makes and designs should be studied in determining the selection of the proper tube for a certain duty. Generally tubes may be catalogued under two heads, soft and hard. Soft tubes function better as detectors and require a lower plate voltage than do amplifiers which are usually hard, that is, the vacuum is nearer perfect.

The purchaser of tubes should rely upon the directions furnished by the manufacturers. The filament voltage required for any tube determines whether it should be operated with storage battery or dry cells. If the filament current is more than 0.25 ampere a storage battery is necessary for economical upkeep.

WIRELESS SUPPLIES LIMITED

THE HOME OF THE "VOLMAX" RADIO APPARATUS

LOUDSPEAKERS.—		Ediswan, ARDE. Price	35/-
"Western Electric" Junr. Price	£3/10/-	English, Mullard "ORA," 6 amp. at 5 volts. Price	20/-
"Radak," Baldwin type. Price	£8	English, Marconi "R," 1 amp. at 6 volts. Price	25/-
"Western Electric," Type 10D, suitable for halls. Price	£17/10/-	English, Cossor, 6 amp. at 6 volts. Price	22/6
"Atlas Amplitone," Price	£7/10/-	English, Marconi V24, 1 amp. at 6 volts. Price	35/6
"Magna Vox," R3. Price	£10/10/-	English, Marconi QX, 1 amp. at 6 volts. Price	37/6
"Amplion," Prices	£4, £8/10/-, £9 and £9/10/-	English, Expanse "B," 1 amp. at 6 volts. Price	35/-
"Trumusic," Price	£9	English, Marconi DER, 1 amp. at 6 volts. Price	42/6
"Trimm's" Acousticon	£7/10/- and £12	English, Phillips, D1 or D11. Price	19/6
HEADSETS.—		CRYSTAL CUPS.—Prices	9d., 1/ and 1/3
Trimm's Dependable, 2,400 ohms. Price	32/6	DETECTOR PARTS.—Brass	2/6, 3/6 and 4/3
Trimm's Professional, 3,000 ohms. Price, per set	45/-	DETECTOR STANDS.—Prices	4/6, 5/6, 8/6
Stroumborg-Carlson, 2,000 ohms. Price, per set	39/6	Glass Enclosed	12/6
Western Electric, 8,000 ohms. Price	45/-	GOLD GRAIN DETECTOR.—Mounted on base, 6/9, 8/6	
Western Electric, Special. Price	75/-	CRYSTALS.—	
Frost, 2,000 ohms (a few left)	35/6	Silicon, Pyrites, Galena. Per piece. 6d., 9d., 1/., 1/3	
"Bostone," 2,200 ohms. Price	32/6	Zincite	1/6 and 2/6
Baldwin, Type C. Price	72/6	Q.S.A. Special Crystal. Price, per carton	1/3
Brown's, 8,000 ohms	£5/12/6	Argentite, in N.P. cups. Price, per carton	3/6
Brown's, Featherweight	£2/7/-	Q.S.A. Spring Contacts (Cutwhiskers). Price, each 3d.	
Murdoch's 2,000 and 3,000 ohms. Price	30/-	WAVEMETERS.—Naymeters built to order, Crystal or Heterodyne. Prices on application.	
VALVES.—		POWER TRANSFORMERS.—For transmitters. Prices, from	£6/10/-
American, UV200, takes 1 amp. at 6 volts	35/-	RADIO JACKS.—Prices, each	4/3, 5/6, and 6/3
American, UV201A, takes .25 amp. at 6 volts	35/-	RADIO PLUGS.—	
American, UV199, takes .08 amp. at 3 volts	35/-	Geo. Prices, each	4/3
UV202, 6 Watt. Transmitter.	50/-	Improved. Price, each	3/6
Ediswan, AR. Price	21/-	Weston (Automatic). Price, each	7/6

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Phone M3378

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

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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.

Wireless Weekly
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Single Copies 3d. net
12 months (52 issues, 13/- post free.
6 months (26 issues) 6/6, post free.

All communications to be addressed to the Editor, Wireless Weekly, 33 Regent St., Sydney.
Telephone, Redfern 964.

All advertising and other matter for insertion should be in the hands of the Editor by Friday.

All copy must be written in ink or typed, and on one side of paper only.
Advertising Rates on application.

The Broadcast Bride

"Oh, I am going to have such a lovely wedding," cried the bride in ecstasy. "The wedding bells are to ring from FML: the radio amplifiers are being put up in the house now. We're going to get our Lohengrin from JOX, just grandest organ, and our Mendelssohn march from KPI; there's a male quartet from LYT and a perfectly adorable symphony orchestra from OGM; the minister will pronounce us man and wife from AZR, and papa, who's on a business trip, will give me away from PQD."

"And—er—the groom?"

"Oh, Egbert has agreed to be present in person if possible, but if not he'll speak his 'I will' from RRR."

A man in a theatre looking for something he had lost on the floor. "I have lost a piece of caramel."

The Usher: "Never mind a little thing like that. Don't you see that you are disturbing the whole crowd?"

The Man: "Yes, but you see, my teeth are in it."—"New Departure."

"No, said the Englishman, "but she was there, wasn't she? It is not my fault you did not want to kiss her."—"Scoots."

"Gosh, darn it! I can't remember whether I told Stella I'd meet her at Fourth and Fifth at six, Fifth and Sixth at four, or Sixth and Fourth at five!"—"Judge."

"Why were you so long on that errand? Didn't I say hurry back?"

"Yes, but you didn't say 'hurry there.'"—"Life."

Mistress: "Josephine, your mouth is open."

Josephine: "Yes'm, I opened it."—Mass. Aggie Squib.

FOR SALE.

Motor Generator Set (at present used by 2HM. Specification: Motor 1/5 H.P., 240 volt, 50 cycles (General Electric); Generator: 220 volts, 500 m/A. Price on application to Wireless Supplies Ltd. 21 Royal Arcade, Sydney.



Radio Company

Limited

15 LOFTUS STREET

Circular Quay

SYDNEY

Why not build your own set. We will advise you as to the best circuit to use and can supply the necessary parts from our extensive stocks at nominal prices. For a small sum we will assemble and wire the parts guaranteeing the result.

RADIO COMPANY LTD.

15 LOFTUS STREET, CIRCULAR QUAY

SYDNEY

QUESTIONS AND ANSWERS.

H.M. (Bellevue Hill):

(1) See W.W., Vol. 4, No. 3, page 6 column two and three on crystals.

(2) Make loop on 2 ft. frame winding 80ft. 14 or 16 D.C.C. or enamel wire. Space 3/8in. to 1/2 in. apart.

To connect to set replace tuning element in set with loop having a .0005 vernier condenser shunted across. One side of loop goes directly to grid of valve, other side to filament.

Catwhisker (Petersham): 1. Yes. 2. There are two batteries; the filament battery and the plate battery. The latter may be 20 to 30 volts, the correct voltage being ascertained by test on signals. 3. Detector.

R.J.H.C. (Kyneton, Vic.): 1. It is somewhat abnormal. It should function better with 50 or 60 volts. Try this again and at the same time increase the filament current.

2. The loss of efficiency would be insignificant.

3. A "C" battery is unnecessary.

4. A fixed condenser is all that is required.

5. Yes, but sooner or later it will be affected by moisture. We recommend Dubilier.

6. Your present arrangement is the better.

SPECIAL ANNOUNCEMENT

We are very pleased to announce that we have completed arrangements for the publication of a series of articles by the "Little American."

This series will commence next week and will deal with the subjects mentioned below. Each article will contain the fullest detail, together with a full list of parts required to make the receiver to which it refers.

1. Reinartz Tuner
2. Flewelling circuit { a. Erla Reflex.
 b. Amrad Reflex.
3. Harkness Reflex
4. Cockaday Four-Circuit
5. Auto-plex
6. Ultra Audion
7. 3 Valve Reflex
8. Neutrodyne
9. Armstrong Super Regenerative (2 tube and 3 tube)
10. Superdyne (latest)
11. Super Heterodyne, (6, 8 and 9 valves)

As nearly as possible the same parts will be referred to in each article so that readers experimenting with the various circuits will not be put to any unnecessary expense.

OUR SPECIAL
LINE

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





THE LEICHHARDT AND DISTRICT RADIO SOCIETY.

No meeting of the Leichhardt and District Radio Society has been more enthusiastic, and certainly none have been better attended than that held at the club room, 176 Johnston St., Annandale, on Tuesday, May 6th. In fact the roll-up of members was a record one, and very gratifying to the older members of the Society.

It was the twentieth monthly business meeting after the minutes of the April meeting had been read and confirmed, five new applications for membership were unanimously accepted by the meeting.

A considerable amount of other business was dealt with, the most im-

portant being the further consideration of the question of affiliation with the Wireless Institute of Australia. The visit of Mr. Phil Renshaw to the previous meeting had gone a long way towards assisting members to come to a decision regarding this important matter, and after several members had spoken in favourable terms towards affiliation, a motion was put to the meeting that affiliation be carried out at once and was carried unanimously.

A ballot was then taken for the purpose of electing a delegate to represent the Society at meetings of affiliated clubs and societies, with the result that Mr. W. J. Zech was appointed to the position.

Next Tuesday night the 81st general meeting will be held and a "sale and exchange" evening conducted. Members are invited to bring along with them any gear for which they have no further use so that it may be sold, or exchanged for other apparatus, as they so desire.

At the 82nd general meeting to be held on May 27th, the 8th lecture of the syllabus—"Radio frequency Am-

plification," will be delivered by Mr. F. Lett.

Inquiries regarding the activities of the Society are always welcome, and should be addressed to the Hon. Secretary, Mr. W. J. Zech, 145 Booth St., Annandale.

WIRELESS INSTITUTE OF AUSTRALIA.

New South Wales Division.

The next meeting of this division will be held at the Royal Society's Rooms, 5 Elizabeth St., Sydney, on Thursday, 15th May, at 7.45 p.m. when Dr. W. G. Woolnough will lecture on "Waves electrical and otherwise."

Messrs. Phil Renshaw and H. A. Stowe are leaving for Melbourne on the 14th May, to attend a meeting of the Federal Council of the Wireless Institute, which will be held in Melbourne on the 16th.

Notice to Club Delegates.—A meeting of the delegates' council of the affiliated Societies, will be held in the Institute's Offices, Room 24, second floor, 82 Pitt Street, Sydney, on Tuesday, 27th May, at 7.30 p.m. sharp. All

Continued on page 19

The World-Renowned
BALDWIN PHONES ARE ONLY £3/17/6

AT DAVID JONES'

Other items are also attractively priced.

Copperweld Aerial Wire. Per 100ft. Price	2/6
Bestone Variable Condensers, with Dial.	12/3 and 16/3
High-tone Buzzer. Price	4/9
Freshman continuously Variable Grid Leaks	3/6
Baby Brown Loud Speakers. Price	£4/4/-
Frost Fones, high quality instrument. Price	27/6
Remler Extension Handle. Price	1/8
Master Radio Frequency Transformers. Price	£1/7/6
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AN EXCELLENT SINGLE VALVER

By A. W. T.

For some time past I have been experimenting on a very little known circuit invented by Mr. May, of America.

The great feature of this set is its simplicity of operation and its cheapness of construction.

Using this circuit I have been able to log 3AR (Associated Radio), of Melbourne, on three successive nights, receiving their telephony with wonderful clarity.

At ten miles, Broadcasters (Sydney) Limited came in at loud speaker strength.

Ships can be picked up any night within radio call of VIT, VIB, VIM, VIS, VIA, VLA and VLW, on a good aerial.

Knowing the number of people who have single valve sets, I thought it would be a good idea to see what a simple set can do.

The windings of the variometer should be as close to each other as possible, while a vernier on the series condenser is a convenience.

For short wave-lengths a plate voltage of up to 100 volts can be used with advantage. The ideal battery is made up of two Hellenen's units, a 40v, and a 60v, in series. These are excellent on account of the wander plug arrangement.

With regard to the grid leak, a pencil line is by far the best for the purpose, as the leak is somewhat critical.

The lead from the low tension supply may be taken either from the negative or positive side, there being an advantage on one side; this is a matter for experimentation.

A .001 fixed condenser inserted in the earth lead will give very low wave-

The oscillations of the set may be stopped by reducing either the filament or the plate voltages.

The variable grid condenser may be used to the same effect.

A vernier on the filament rheostat simplifies matters a little.

The valve used by the writer was a Phillips D1.

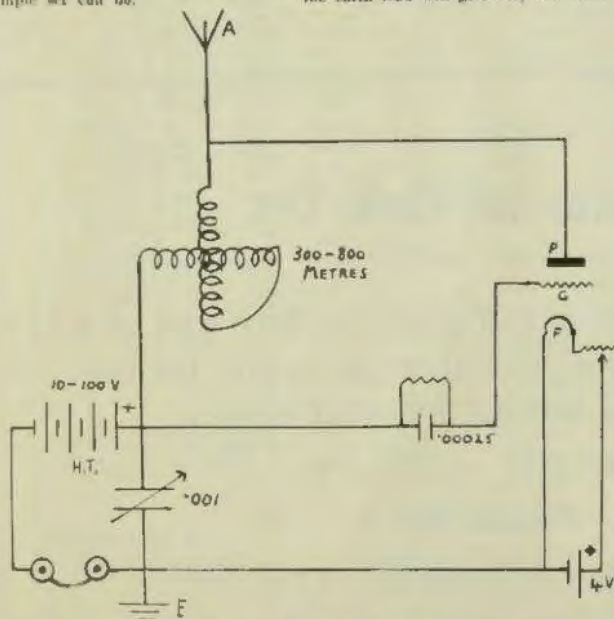
The best variometer to use is the "airway" type which costs from 30/- to 35/-.

The set is of course regenerative, but the regeneration is very easily controlled.

On the whole I can thoroughly recommend this circuit to any amateur.

One last point—the aerial condenser need not necessarily be more than .0003 capacity, while a .00025 fixed condenser may be substituted for the variable one on the grid.

The writer will only be too pleased to supply information to any prospective builders and may be found at 15 Loftus Street City.



From the diagram you will see that the circuit is tuned by means of a variometer and variable condenser.

It was found that a variable grid condenser was a big improvement, but it was not essential to obtain excellent results.

lengths while a coil will successfully lengthen them.

Rough tuning is accomplished by tuning the rotor of the variometer until the carrier wave is heard and then finally adjusting with the aerial and grid condensers.

We regret that contrary to expectations, Insulator, who is suffering from ill-health was unable to carry on with his series of articles this week. We are unfortunately unable at the moment to announce any definite date, but we hope to be able to do so next week.

BOOKS ON WIRELESS

More Practical Valve Circuits, by J. Scott Taggart. Price 4/10, posted.

Wireless Sets for Home Construction, by E. Redpath. Price 3/9, posted.

500 Wireless Questions Answered, by C. Kendall. Price, 3/9, posted.

Pictorial Wireless Circuits, by O. Rankin. Price 2/3, posted.

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SOLE AUSTRALIAN AGENTS

Friday, May 16, 1924.

WIRELESS WEEKLY

19

F. Leverrier	10	10	0
H. Francis Markell	2	2	0
V. S. Liarde	0	1	0
Anonymous	0	10	6
Northbridge Radio Club	1	1	0
Strathfield and District Radio Club	0	12	0
Scotts' College Radio Club	0	9	0
Total	£111	10	0

Continued from page 16

those societies who have completed their bond of affiliation will be entitled to representation at this council.

WIRELESS INSTITUTE OF AUSTRALIA.

New South Wales Division

The annual dinner of this Division was held at the Wentworth Hotel, on Tuesday night, 6th May, and was a great success.

The outstanding feature of the evening was an account by the President, Mr. C. D. MacLurean, of his recent trip to America.

Working on low power signals were received from the 8 watt transmitting set at Strathfield when 5385 miles from Sydney, while the signals from the larger set having an input of 180 watts were received up to 5900 miles.

While lying in San Francisco Harbor, the code signals were not distinguishable, due to the fact that the ship was moored directly over the main power lines running across the bay, but the call signs from Strathfield station were clearly picked up.

In proposing the toast of the Institute, Mr. S. E. Tatham appealed to wireless experimenters to give greater publicity to their accomplishments. He stated that the work done in Australia was equal, if not better, than anything done elsewhere.

Mr. F. Basil Cooke responded in suitable terms.

Mr. Phil Renshaw proposed the toast of the visitors, and drew particular attention to the need for internal com-

munication. This, he said, could only be economically accomplished by means of radio. With regard to long distance communication, radio was going to prove a very serious rival to the existing cables. The recent experimental transmission across the Pacific proved that reception of comparatively low power signals was possible in Australia. Master Jack Davis, in replying to the toast, said how much he had enjoyed his recent trip and expressed his willingness to undertake a similar one as soon as it could be arranged.

Mr. W. T. S. Crawford (Government Wireless Inspector) expressed great satisfaction in the general improvement which has been manifested in the work done by experimenters, but he intimated that while he would be reluctant to take action in certain cases it would be necessary if considerable improvement in the methods adopted was not exhibited.

Mr. Malcolm Perry proposed the health of the affiliating societies, and in reviewing the work of the past few weeks, he again emphasized the need for united action in the present critical times. Mr. R. C. Marsden in replying, spoke on the same lines.

The foundation members were proposed by Mr. F. T. S. O'Donnell. He told some interesting events of the old times, and was most emphatic in stating that commercial interests should not interfere with work being done by experimenters. Mr. H. A. Stow thanked the last speaker for his remarks, and drew attention to the good work that had been done by the Institute since the restrictions imposed by the war had been removed. He particularly referred to the courtesy and generosity of the Amalgamated Wireless Company during the period of difficulty and trial immediately following the Declaration of Peace.

Mr. J. P. Wiatt proposed the toast of the President and was supported by Mr. O. F. Mingay. The latter drew particular attention to the fact that the work accomplished by Mr. MacLurean easily surpassed that of any other known experimenter.

NORTHBRIDGE RADIO CLUB.

The usual General Meeting of the Club was held at the residence of Mr. Forsythe, as the clubroom is being altered. There was a good attendance. After business arising from the previous meeting was finished with a general discussion took place regarding the Experimenters' position under the proposed regulations to govern wireless. Mr. Woolridge spoke at length about the activities of the Wireless Institute, principally as champion

of the experimenters. He explained that all Experimenters were morally obliged to protect themselves at all times and suggested that the Club join up. Affiliation was unanimously agreed to and Sec. was instructed to get in touch with officials of the Institute to obtain all particulars. Arrangements were made for a Syllabus of Lectures to be drawn up and announced at the next meeting.

All members are requested to bring their phones along for code practice before meetings commence in future. Also Mr. Forsythe 2BF has agreed to transmit Morse slowly during the week nights.

The next Meeting of the Club will be held at the clubroom "Hoylelake," Sailor Bay Road, Northbridge, on Wednesday 21st. Inst. All local experimenters are asked to come along and also persons interested in Wireless. Any inquiries may be addressed to Hon. Sec. A. Cameron, "Ogilvie," Clanwilliam Street, Chatswood.

STRATHFIELD AND DISTRICT RADIO CLUB.

The 7th general meeting of the Club was held at the Secretary's residence, on Thursday, May 8th, Mr. Bourke being in the chair.

Several matters in connection with the concert and the silver cup competition for crystal sets were discussed.

The dance promises to be a very attractive affair, and with good music and floor, visitors are assured of a good time. Tickets are now available; 2/6 single, 4/- double. The object of the dance is to raise funds for the purchase of a 4 valve receiving set, and to enable the club to fit up a proper club room so that members may experiment any night in the week.

During the progress of the dance, several demonstration items will be given with Mr. Bourke's 4 valve set which will be fitted up for the occasion.

The Club invites entries for the silver cup competition which will take place in June. Entries will close on May 31st. A nominal entry fee of 1/- will be charged for the competition, full details of which will be announced in the next issue of Wireless Weekly. The Secretary, Mr. Wraxall, "Almor," Long St., South Strathfield, will gladly answer all enquiries.

Lectures by prominent wireless men will be a feature of the club, as soon as suitable rooms are located.

For Sale.—Marconi D.E.R. valve (14 volt dry cell), 20/-; also Annaka valve, 10/-, both in good order. Letter only to C. J. Cray, 20 George St., Marrickville.

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ROZELLE TRAMWAY CLUB.

Good progress is being made by the Rozelle Depot Radio Club. The hon. organiser, Mr. Dave Ford, reports many new members joining up, and everything is being arranged to make this the newest club formed, one of the strongest numerically in the metropolis. The secretary has been instructed to write to the Wireless Institute re affiliation. As this club is determined to put up a fight for the rights of genuine experimenters, it has been decided as soon as the necessary permission is obtained to erect an 80ft. (inverted L type) aerial. And as the club has the assurance of the best wishes of Mr. W. L. Carter, hon. secretary, of the parent club, it is hoped that our aerial will be up in the course of the next few weeks. New members from any depot may join, the only qualification necessary being a member of the R. and T. Institute. All inquiries made to the hon. secretary will be freely answered. The secretary's address is P. L. Nicholls, 233 Balmain Rd., Leichhardt.

WAVERLEY RADIO CLUB.

Mr. E. Bowman occupied the chair at the meeting held on the 6th May. Arrangements are well under weigh in connection with the new transmitting set. The chief difficulties at present are the mast and aerial, along with a counterpoise, which has been found necessary. These, however, should soon be erected.

A syllabus for the ensuing month was drawn up, consisting of lectures and discussions.

A member drew the meeting's attention to the fact that the club had had four new members within the fortnight—an appreciable rate of increase.

The club, it was mentioned, was never in a more stable condition than at present.

CONCORD-AMATEUR RADIO CLUB.

The above club held its usual weekly meeting at the club room, "Euripedes," Wallace Street, Concord, on Thursday, 1st May, when a very interesting evening was spent by all present.

The attendance was again excellent. The vice-president, Mr. Stephenson, took the chair, and business was immediately proceeded with.

Published by A. W. Watt, "Strathaird," East Crescent St., McMahon's Point, for the proprietors and printers, Publicity Press Ltd., 33/37 Regent St., Sydney.

The minutes were read and confirmed. The correspondence was then received.

The Management Committee will make a visit to 2CM's station, on Wednesday, 7th May, to receive first-hand knowledge of first-class transmitting.



The Concord Club.

The members then entered upon the usual quarter of an hour questions and answers period.

After buzzer practice and listening in had been finished, refreshments were served.

All communications should be addressed to the Honorary Secretary, W. H. Barker, "Euripedes," Wallace St., Concord.



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WIRELESS WEEKLY

Friday, May 16, 1924

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T.M.C. 2000 and 4000 ohms Head Set		35/-
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