

The Queensland Radio News

"Your Own Wireless Journal"

6^D



Vol. II.

Monday, 1st March, 1926

No. 2



NOW Is The Time

The opening of Big 4QG (Australia's Greatest Broadcasting Station) makes the time indeed ripe for installing a trustworthy Radiophone in the home. Radio will make your life happier, your home brighter the moment it enters your drawingroom. Do not delay. Enquire *to-day* about the Wonderful

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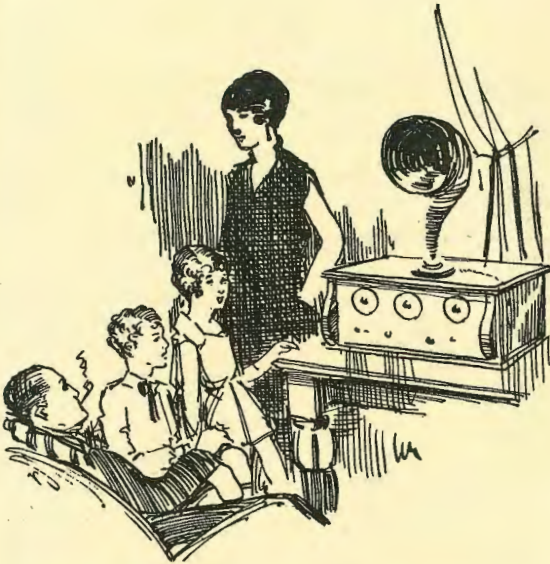
(Opposite Normal School)

The Three Wonders of Wireless !

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**5 VALVE
Receiving Set**

£24



It is the only 5 Valve Receiving Set on the market to be purchased at anywhere near the price. Its low price, on account of its being built mostly of Patented Rico parts and its excellent value, must recommend the Rico-Dyne to you.

The attractive appearance of the Rico-Dyne and its exceptional performance in the reception with fineness and clarity, Radio messages from all Australian and also outside stations, including California and Japan, makes it a favourite with wireless enthusiasts everywhere.

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Allow yourself better reception. The perfectly insulated large cells of these batteries guarantee more storage capacity than is found in any "B" battery of this price.

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These valves are the latest and greatest scientific production in the vacuum tubes. Tune in your set on the desired station, then replace the valves you may be using with the De Forest, and you'll see a big improvement.

DV 3 and DV 5 17/6

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Parts comprising: 3 Sets Special Tubes, 3 Anglo Frames, 12 Binding Posts, 2 Neutralising Condensers, Circuit, etc. 16/6 each.

Kits.—3 Neuroformers, 2 Neutralising Condensers, Guides and Circuit 27/6

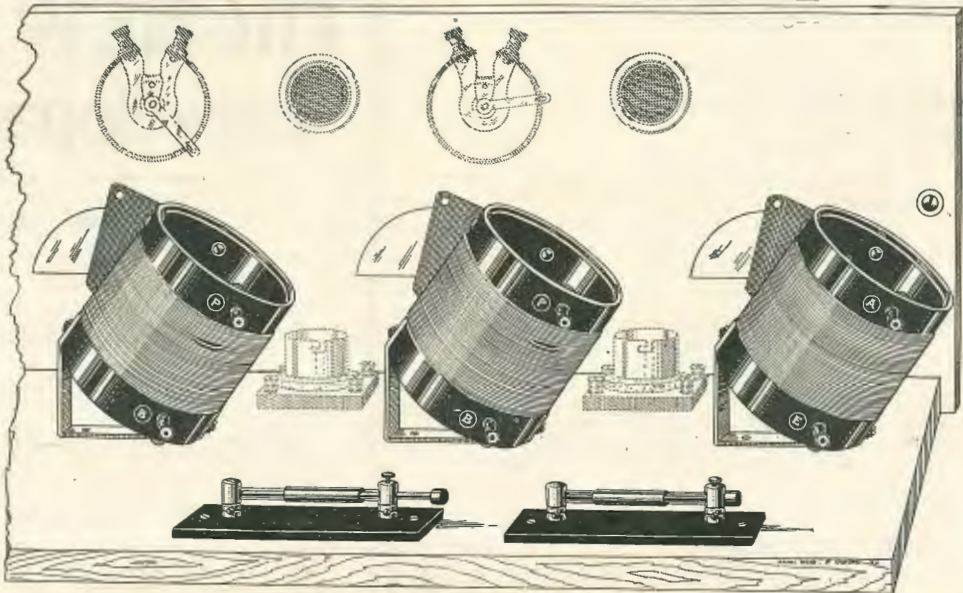
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Queensland Radio Service

Intended Hours of Transmission

When the full service is inaugurated at the permanent station, 4QG, wireless enthusiasts in this State should be well catered for.

The following will be the hours of transmission:—

MONDAYS TO FRIDAYS.

MIDDAY—

- 12.55 p.m.—Tune-in.
- 12.58 p.m.—Time Signal.
- 1.0 p.m.—Market Reports, Stock Exchange Information, Weather Information, News Services, Cables.
- 1.30 p.m.—CLOSE DOWN.

AFTERNOON—

- 3.30 p.m.—Musical Entertainment—Talks to womenfolk.
- 4.15 p.m.—News Services.
- 4.30 p.m.—CLOSE DOWN.

EARLY EVENING—

- 6.30 p.m.—The Children's Session.
- 7.0 p.m.—The Farmer's Session. Late Market Reports.
- 7.20 p.m.—News Services
- 7.30 p.m.—CLOSE DOWN.

NIGHT—

- 7.45 p.m.—Lecture Session.
- 8.0 p.m.—Entertainment.
- 10.0 p.m.—CLOSE DOWN.

SATURDAYS.

NO MIDDAY TRANSMISSION.

AFTERNOON—

- 3.30 p.m.—Sporting News.
- 4.30 p.m.—CLOSE DOWN.

EARLY EVENING—

- 6.30 p.m.—The Children's Session.
- 7.0 p.m.—Sporting News.
- 7.15 p.m.—CLOSE DOWN.

NIGHT—

- 7.45 p.m.—Lecture Session.
- 8.0 p.m.—Entertainment.
- 10.0 p.m.—CLOSE DOWN.

SUNDAYS.

MORNING—

- 11.0 a.m.—Church Service.
- 12.30 a.m.—CLOSE DOWN.

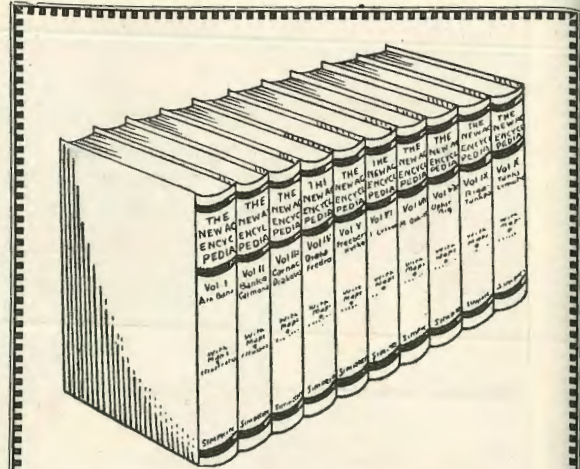
AFTERNOON—

- 3.15 p.m.—Band Concert.
- 4.30 p.m.—CLOSE DOWN.

NIGHT—

- 7.0 p.m.—Church Service.
- 8.30 p.m.—Band Concert.
- 9.30 p.m.—CLOSE DOWN.

These transmissions will commence from the official opening of the new station. In an article appearing in another portion of this issue, the probable date of opening is referred to, and the arrangements which are to be made for the transmission on power in the near future are set out.



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Vol. 2

MONDAY, 1st MARCH, 1926

No. 2

The Official Organ of the Queensland Division of the Wireless Institute
of Australia and Radio Societies of Queensland

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LITERARY CONTRIBUTIONS.

especially original articles of interest to readers, are invited. Accounts of Club doings or unusual receptions, &c., &c., will be welcomed. This journal reserves the right to reject any contribution deemed unsuitable.

THE SUBSCRIPTION PRICE

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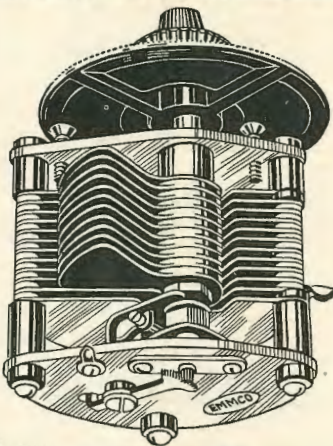
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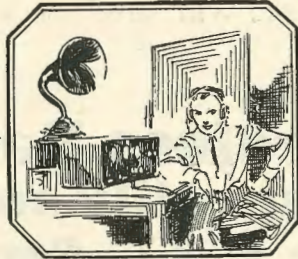
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THE QUEENSLAND
RADIO NEWS



A Magazine for Amateurs
A. T. BARTLETT, Editor

THE EDITOR'S PAGE

Buy Good Parts



STUDY of the various phases through which the broadcasting movement and those associated with it have passed is very interesting.

It is now a little more than two years since broadcasting was first launched in Australia, and during that comparatively short period much water has flowed under the bridge.

Certain technical developments have occurred and changes have taken place in regard to the services provided by various stations, but perhaps the most interesting of all matters in connection with broadcasting has been the steady tendency which has been displayed of late by the radio public to obtain the very best of parts and material for their receivers.

In the early days of broadcasting, when quite a number of people began to be attracted by the possibilities of radio, the first "trade wave" which reached Sydney and Melbourne carried on its crest demands from the public for cheap material. Precision results were not considered, but only workable sets and parts were asked for.

After a very little while the radio public realised that one of the most unassailable of all facts in connection with reception is that the better the parts used in a set the more precise, the more reliable and consequently the better are the results obtained.

As a result of this knowledge the demand for cheap materials soon died away and in its place there came inquiries for better materials.

Queensland is yet but young in regard to broadcasting and consequently has a certain amount of experience to gain. In spite of this fact, however, traders generally report that a steadily increasing demand for the best of material has now set in.

The radio enthusiast, or the intending enthusiast, if wise, will profit by the experience of the large numbers of other enthusiasts and will, when deciding to manufacture or purchase a set, see that nothing but the very best is put into it.

The initial expense may be slightly higher, but the ultimate results will more than compensate for the additional expenditure.

"U.S.L. Will Serve You Well"

Your Wireless Batteries Re-charged speedily and at lowest Cost—at the U.S.L. Service Station

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Your Battery troubles (no matter the make of Battery) will be speedily rectified at the U.S.L. Service Station. It lives up to the slogan "U.S.L. will serve you well."

There are experts here with an extensive knowledge of Wireless and especially batteries connected with it.

Bring your Battery troubles to U.S.L. and have them remedied at lowest cost.

Any information desired will be readily given by Mr. A. K. Lawton, General Manager of Butler Bros., Ltd., and President of the Wireless Institute of Australia (Queensland Division).

Get acquainted with all the Staff of U.S.L. Battery Service Station. They will also "serve you well."

RADIO BATTERIES

6 Volt 60 Amp	-	£3/18/-
6 Volt 80 Amp	-	£4/19/-
6 Volt 100 Amp	-	£6/-/-
6 Volt 120 Amp	-	£7/10/-

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A Page of Photographs from 4QG

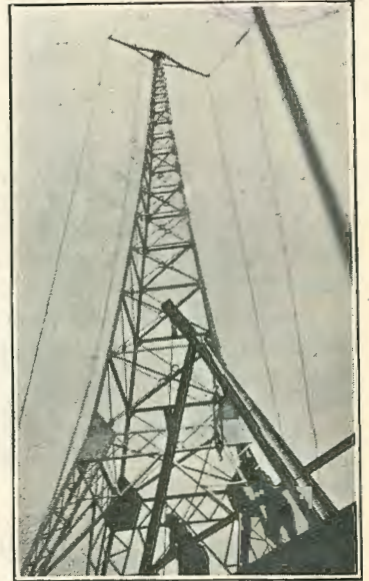
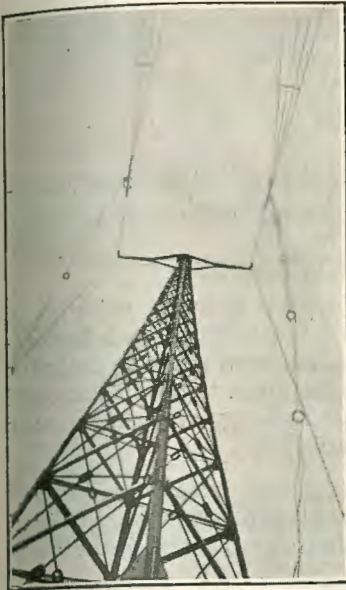
Top (left)—Photo taken looking up at aerial.

Top (right)—Looking up at one of the towers.

Centre—A view of Brisbane from the roof of the State Insurance Building.

Bottom (left) — Another photo taken looking up at towers.

Bottom (right) — Photo taken looking down in courtyard of the State Insurance Building. All the material for the construction work and also all the apparatus has had to be hauled up this way.



" WIRELESS "

A New Text Book

For Australian Radio Enthusiasts.

A new radio text book, entitled "Wireless," is now in the hands of the Read Press Ltd. (Brisbane) and should be on sale throughout Australia towards the end of March or the beginning of April.

For a considerable time past wireless enthusiasts have felt the need of a text book which, while dealing with the science of radio in a clear and popular manner, will give them the whole of the technical information needed in connection with the construction and operation of their sets.

Such a text book is "Wireless," and it therefore should find a ready sale.

It has been written and illustrated by Mr. J. W. Robinson and Mr. G. Williams.

THE AUTHORS.

Mr. Robinson is well known as Director of the Queensland Radio Service (Station 4QG, Brisbane), and Mr. G. Williams is also equally well known as instructor at the Marconi School of Wireless, Sydney.

Mr. Robinson has had a double training, which has equipped him to write a text book like "Wireless." He has had a good deal of experience as a practical journalist and quite apart from an association with wireless dating back to the old coherer days also did a special two years' course of instruction at the Marconi School. He has been associated with the broadcasting movement since long before it was even an accomplished fact in Australia, was Honorary Radio Inspector for the Federal Government under the old regulations, and was one of the small body of pioneers responsible for the putting of Station 2FC on the air and maintaining its service. His work in Queensland is too well known to warrant further mention.

Mr. George Williams has been associated with wireless since its earliest days. He was a sea-going officer, had considerable active service during the whole of the war, and for some time past has been instructor at the Marconi School. Through his hands some hundreds of

students who have qualified for operator's commercial certificates have passed.

THE BOOK.

"Wireless" represents a vast amount of work on the part of the authors, and in compiling it an attempt has been made to cater for the enthusiast who desires to understand all about radio without making an exceptionally deep study of the subject.

It is well written and exceptionally well illustrated, much care and attention to detail having been given in connection with the black and white sketches in it.

The laws of electricity and magnetism are clearly defined, the science of electromagnetics is made quite simple even to the novice, the functions of the various portions of receivers are clearly set out, and quite a lot of very useful information in regard to sets has been given.

The book also contains an exclusive chapter on broadcasting, some interesting sidelights on the movement being given.

In addition to the above, quite a host of valuable information has been arranged in tabular form. Valve tables have been set out, call letters of land, ship, broadcasting, and amateur stations have been arranged, and also reversed tables of the names of stations alphabetically arranged with their call letters have been included.

COPIES AVAILABLE SHORTLY.

Printing is now proceeding, and it is anticipated that copies will be available shortly.

The price of "Wireless" will be 3/6, posted 4/-.

Orders, which should be accompanied by postal notes, may now be sent to any Radio Dealer, Bookseller, or to The Read Press Ltd., Adelaide Street, Brisbane.



The Red indicates where 'PHILIPS' VALVES are predominant.

Banish Isolation!

Have you yet realised what a tremendous difference RADIO can make to your social life?

How it can bring the music of the theatre and the concert hall right into your home?

Have you realised the difference between reception from an ordinary valve and one which is made by

PHILIPS ?

We specially recommend the following two Valves:—

A110 The One Cell Valve. Filament 1.0 to 1.3 volts, .06 amp. The most remarkable valve yet produced as it enables you to run each valve for weeks on one dry cell, while the volume and tone are exceedingly good.

Price 17/6 each

B406 The New Wonder Valve. The B406 is in a class by itself, as it is the first Low Frequency Amplifier which attains a saturation current of 30 milliamps with a filament consumption of only 0.1 amp., at 3½ to 4 volts. Only a two cell accumulator or three dry cells should be used, thus showing a further remarkable saving.

Price 17/6 each

OBTAINABLE AT ALL RADIO DEALERS

Ask your Dealer for illustrated folder describing these wonderful Valves.

PHILIPS



BIG 4QG

Its Official Opening

One of the most burning of all questions among radio enthusiasts and among radio traders at the present time is—"When will big 4QG open?"

Country residents in particular are seeking an answer to this query and crystal set owners in the metropolitan area are also specially interested.

Our representative discussed the matter some few days ago with the Director of the Queensland Radio Service (Mr. J. W. Robinson), and asked him for a statement regarding the opening date.

"I would be very pleased indeed to give some definite information not only to you but also to the radio public," he said, "but it is really quite dangerous for me to attempt to do so."

"At the present time the work is in the hands of two distinct sets of people, the Department of Public Works and Amalgamated Wireless (Aust.) Ltd. The former department is proceeding with the constructional work, and the engineers of the latter company are installing the apparatus. You will therefore see that the matter is to a very large extent out of my hands and therefore I cannot give a definite expression of opinion."

"I will, however, be pleased to tell you just exactly how matters at the station now stand."

"The Public Works Department is pushing ahead with constructional work in a very satisfactory manner. Practically the whole of the rear portion of the building has now been completed, the main instrument room, workshops, laboratories, fan and motor rooms and store rooms being practically finished, except for small constructional details and painting. One of the studios (the small one) has been completed, and when the March issue of your paper is on sale should be quite draped and ready for use."

"The actual apparatus has been installed and preliminary tests should be made also at

about the time your paper is in the hands of readers."

"Much work yet remains to be done, however, to the front part of the building. The dome and all the top portion of the reception hall has been plastered, plastering work has been done to the offices and the roof over the main portion has been completed. The reception hall is, however, a large room and it will be some time before it is finished. In addition, the front portion of the roof has to be extended to meet portion of the already existing roof of the building, and this is a ticklish job."

"It will be quite impossible to commence a full service until the offices and reception hall are completed. The transmission of a programme is a mere detail once the programme is arranged, but the organisation required to keep the programmes going night after night and day after day is so large that all facilities must be available before a full service, including day and night sessions, can be commenced and maintained."

"I do not therefore propose to commence the actual full service until such time as the building has advanced to a stage when it will be possible to completely house the staff and to provide them with facilities which will enable them to work properly."

"I anticipate that although the building will not have been completed it will be found possible to commence the full service by about April 19, but while mentioning this date I would point out the numerous difficulties which have to be faced during the next few weeks and would warn your readers that the date may have to be slightly postponed."

"However, I do not propose to wait for the completion of the building before we commence transmission on power."

"Immediately the small studio is ready and the apparatus tested we will transmit from the new station at night only, using our full power."

"In other words, we will carry on our service as at present, using the Executive Building for our offices, etc., and providing a service similar to the present one, but our programmes will be transmitted on power from the new station."

"I hope that this transmission on power will commence a few days after the March issue of the "Queensland Radio News" is on sale in Brisbane."

Queensland Radio Service

Some Added Programme Attractions

During the past few days one or two arrangements have been made in regard to programme features at Station 4QG, and these should prove attractive to listeners generally.

Negotiations have been completed for the broadcasting of an hour's music by the Greater Brisbane Municipal Concert Band (under the leadership of Mr. E. Jackson) from the band's practice rooms every Thursday night between 9 o'clock and 10 o'clock.

The Greater Brisbane Municipal Concert Band is well known to wireless enthusiasts owing to the capital programmes which it provides on Sunday nights from the Wickham Park. The Thursday evening recitals by it should prove popular.

Arrangements have also been completed for the South Brisbane City Orchestra (under the baton of Mr. J. W. Ferguson) to provide an hour's music every Monday night. This feature, which should also prove pleasing, will be added to 4QG's programmes some time during March.

The Ithaca Orchestral Society is to appear on the programme on the official opening night of the big station. Special recitals in the new studios are also to be given by the Federal Band (conductor, Mr. W. H. Davies). The Brisbane Apollo Club, in glee and part songs, will also be broadcast when the service moves its headquarters to the roof of the State Insurance building.

Roberts' Exhibition Wireless Cabinets

A well-built, finely polished Cabinet, will make all the difference to the appearance of your set.

We build Wireless Cabinets of Maple, Silky Oak, or Rosewood, to any size, and polish them in any color. The cost is very reasonable. Call and see us.

To Those in the Country

To facilitate packing we supply "knock-down" Cabinets, cut and polished, ready to screw together. Write us for prices.

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HUDSON'S

HUDSON'S

For Wireless Sets and Accessories

Single Valve Set, £7/10/, complete.

Two Valve Sets, £14/10/-, complete.

Three Valve Sets, with Loud Speaker, £25, complete.

Crystal Sets, made specially for 4QG Brisbane, from 35/-, complete.

All Latest Records Stocked.

Talking Machines from £3/7/6.

Gramophone Repairs Speciality.

HUDSON'S Gramophone Shop

354 GEORGE STREET, BRISBANE.

(Opp. John Hicks).

A CRYSTAL-VALVE SET

For Clear Reception

When the new station, 4QG, commences transmission on high power there should be no doubt about volume being considerably increased in the case of crystal sets.

At the present time, crystal set owners within a short distance from the station experience little difficulty in regard to reception, but with the new station on high power a much larger crystal range should be secured, and those already within crystal range should obtain considerably louder signals.

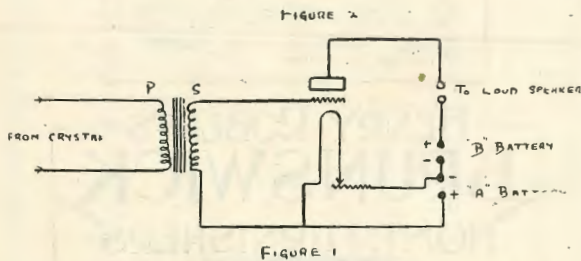


FIGURE 1
Theoretical Sketch of One Valve Amplifier for use with Crystal Set.

There are doubtless many enthusiasts owning crystal sets at the present time who are desirous of obtaining loud speaker results.

In most cases these enthusiasts are not anxious to fill a whole hall with speech and music, but are perhaps desirous of securing signals loud enough to operate a small speaker, and so enable their families and friends to listen-in without the discomfort of using headgear.

It is known, of course, that the crystal set itself will not operate a loud speaker, but there is no reason whatever why a combination of a crystal and valve should not be used to give the desired results.

Where such a combination of apparatus is employed, the crystal acts as a detector of the signals and the valve magnifies the note to such an extent that a speaker can be operated by it.

It is a well known fact that crystal reception is by far the best when purity of tone is considered, and this tone is not altogether lost where a valve amplifier is added to a crystal set.

As a matter of fact the crystal valve combination is admirable for the reception of broadcasting stations within crystal range. The term "within crystal range" has been used because it must be clearly remembered that where a crystal-valve set, with the crystal used as a detector and the valve as an amplifier, is employed, the range is only crystal range.

SIMPLE METHOD OF CONSTRUCTION.

The beauty of a crystal-valve set lies in the fact that it is simple to construct, simple to wire, simple to operate, and quite inexpensive.

Any boy or man owning a crystal set may quite easily construct a valve amplifier for use with it at a very low cost.

One of the troublesome points of wireless is that in nine cases out of ten where an enthusiast desires to advance, the apparatus he uses must be scrapped. Even if the parts used in a set are not scrapped they must be dismantled and built into another set. This may take a little time, and during the interval, when construction of the new set is in progress, the enthusiast has no wireless.

With the crystal-valve set such is not the case.

To begin with, not a single piece of the crystal set is thrown away. The set is not even altered in any way whatever. It is kept as the original crystal set, and the signals from it are merely fed to an amplifier and boosted.

The simplest method of constructing a one valve amplifier is to build it on a separate panel.

If this is done, the crystal set may be used for reception during the whole of the time the amplifier is being built, and thus no wireless entertainment are lost.

When the amplifier is complete it is attached to the crystal set in place of the telephones! Surely the simplicity of the whole operation must appeal to every enthusiast.

PARTS NEEDED.

The parts needed for the construction of a single valve amplifier consists of: A wooden base, an

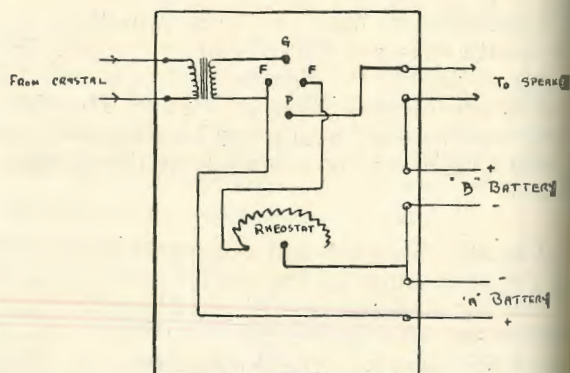


FIGURE 2

Semi-pictorial Sketch showing suggested lay out of apparatus on panel, and method of wiring.

ebonite panel, eight terminals, a valve socket, a rheostat, a valve, an "A" battery, a "B" battery, and an audio frequency transformer.

The size of the base and panel can be made to vary according to the taste of the builder. The "A" and "B" batteries used depend entirely upon the type of valve employed. If a dull emitter is used, then dry cells will be sufficient for the "A" battery. If accumulator types of valves are employed then an accumulator must be used.

The person deciding to construct a single valve amplifier would be well advised to consider the type of valve he will use first. If he does this he can decide immediately just what batteries he will use, just what value of rheostat he will put in the set, and just what shape and size of valve socket he will employ.

The diagrams which are shown on the previous page show the simplicity of the wiring and lay-out. One of them is a theoretical sketch showing the connections and the other is a semi-pictorial sketch showing the way in which wiring may be effected.

In both sketches the wiring has been shown very simply. It would have been possible to vary it somewhat but as this description of a crystal-valve amplifier is intended mainly for the beginner it has been thought best to show the wiring as simply as possible. With this end in view, the "A" and "B" battery terminals have been made in separate pairs.

A close study of the wiring should soon enable even the inexperienced wireless enthusiast to construct a set which will give him very fair volume.

Just one word of final advice.

Where a crystal-valve set of the type referred to above is used, liberties cannot be taken with the aerial. The energy supplied to the grid of the valve must come from the crystal.

The amateur who considers that because he has a valve his set will be more sensitive is making a serious error. Where a valve is used as a detector there may perhaps be a little excuse for a poor aerial system. The enthusiast should remember, however, that he must have the crystal set operating at maximum efficiency before he can expect the best results from the amplifier.

Afternoon Tea and Supper at SYRMIS'



When in town of an evening call at Syrmis Cafe for refreshments, and be entertained by 4QG's Studio music broadcasted through our Super Six Receiver.

Dainty Afternoon Teas a Speciality

SYRMIS CAFE
GEORGE STREET, BRISBANE.

A. G. MYERS & CO.

719 Stanley Street

(opp. Railway Yards)

South Brisbane



Crystal Sets

Assembled and Unassembled.

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Complete or Ready to Assemble, 1-5 Valves.

Valves—Phillips, Ediswan, &c., &c.

Accessories of All Descriptions.

Also All Electrical Supplies Stocked.

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JOIN OUR GRAMAPHONE RECORD
EXCHANGE

It Will Pay You.

Consult Us when Quality and Service
in Trouble. Our Motto

DON'T!

Hump Your Battery to the
Charging Station—

IF—

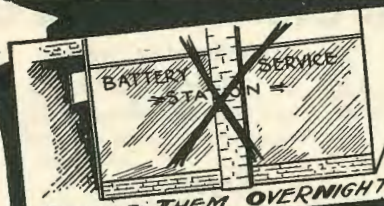
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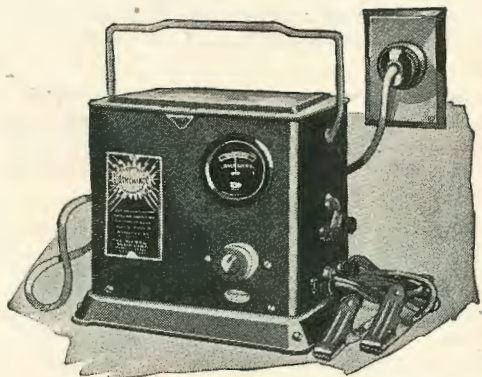
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If you own a Gold Seal Homcharger you can rest assured that your batteries will be fully charged and on the job when you most require them. No more nights without radio because your battery is at the service station.

The New Improved 5 ampere GOLD SEAL HOMCHARGER charges your battery overnight. It charges three times as fast as the slow obsolete 2 ampere chargers that were last year's best, and it charges both Accumulator, A and B batteries without additional equipment.

Your dealer will be pleased to show and demonstrate a new 5 amp. Gold Seal Charger to you.

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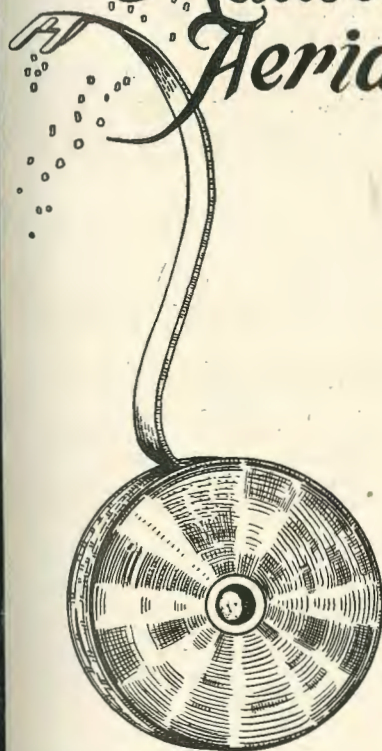
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**No Poles
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A Complete Aerial Equipment in One Piece for One Cheap Price

TALKING TAPE is a combination of metallic and fibre strands carefully woven with the metallic portion in perfectly spaced parallel lines.

Being rightly sensitive in radio reception, Talking Tape gives distance, selectivity and quality far superior to that of a loop, or any other method of indoor reception yet devised.

The annoyance of static, so troublesome during summer months, is practically eliminated, and clarity of tone and freedom from interference are obtained to a point heretofore hardly deemed possible.

No insulation is required. Just tack or hang it round the room on the picture rail, on the piano, or behind the sofa. Then you have the perfect aerial for use with any type of receiver.

ASK YOUR DEALER TO SHOW YOU THIS LINE.

Retail Price 7/6 per 100 ft.

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Broadcasting in the Southern States

REPORT BY MR. J. C. PRICE

(Managing Director, Wireless House Ltd., Brisbane)

As a result of two and a half weeks absence in Sydney and Melbourne, carefully investigating broadcasting from two A-class stations in operation in each of these two capitals, the methods adopted in the distribution of receiving sets and accessories, the sale thereof to the public, and finally, and most important of all, what steps, if any, were being taken by those concerned to raise the quality of transmission, and to control the sale of apparatus, the writer feels that the time occupied has been usefully spent, and the information obtained will be of considerable interest to many.

The first matter of real interest was a visit to the Beam Station, situated at Ballan, 60 odd miles from Melbourne. Mr. Mulholland, Manager of Amalgamated Wireless (Aust.) Ltd., Melbourne branch, very kindly extended an invitation to Mr. J. Malone (Chief Manager of Wireless and Telegraphs), and myself to visit this station. The trip out by car was interesting, although the country passed through was monotonous—the approach to the old town of Bacchus Marsh was delightful—memorial trees have been planted outside of the town for a distance of approximately one and a half miles; in the township itself, the trees are of maturer growth, and meet across the road, making a delightful avenue to pass through. At Ballan township we stopped for lunch at a quaint old hotel, where, strange to say, the dining-room was cool, the shade temperature was 104 deg. Fahrenheit (so Queensland is not the only hot place on the globe).

The site of the Beam Station is actually several miles outside of the township. Work was well advanced. The six 200ft. steel towers, with 92ft. spreaders were completed. These towers, which are constructed of iron, are square, the four corners being of 5 inch x $\frac{3}{4}$ inch angle iron, at the base the measurement is 10ft. square. Each tower is set into solid concrete, and stayed—the stays being fixed to large ring bolts fixed into solid blocks of concrete. Three of the towers are to be used for supporting the aerial system for transmitting to England, and the other for transmitting to Canada. The spacing between the towers is 600ft. or a total of 1,200ft. for each aerial. The power house was nearing completion, and it was expected that the machinery in connection with the transmitting plant would be in course of erection early next month, and that everything would be ready for the transaction of business about July.

The Beam Receiving Station is NOT situated at Ballan, but at Rockwood, and as at Ballan the same arrangements of towers to support the two aerial systems were being provided. The actual transmission and receipt of messages will be handled in the premises of Amalgamated Wireless (Aust.) Ltd., situated in Queen Street, Melbourne, and not at Ballan and Rockwood. At the present time approximately 20 officers of the Amalgamated Wireless (Aust.) Ltd., are abroad getting tuition on the trans-

mission and receipt of messages by the Beam System of wireless.

STATION 3LO.—The equipment for this station is situated at Braybrook approximately 10 miles from Melbourne. Mr. Hector Johnson kindly drove me out in his little Amil car, and explained in detail the operation of the whole plant.

The design of the plant is a sure indication of the rapid advance in radio. A very interesting example of the talking arc was obtained at this station. By approaching the aerial coil with a piece of wire a purple arc was struck, and then music and speech was heard quite distinctly, the nearer the wire approached the coil the louder the reproduction, whilst the wire was kept in a state of violent vibration, resembling that which they say happens with the divining rod when over water.

The studio of 3LO is situated in Collins Street, Melbourne, and I had the opportunity of examining the speech amplifying apparatus, and also enjoying a Saturday evening at the studio when they were giving one of their popular "Old Time Concerts."

Every opportunity was taken of listening-in to the broadcasting from 3LO and 3AR in the suburbs of Melbourne, and whilst the general opinion is that the quality of transmission is not high, the programmes are not always up to the desired standard, we are confident that our new 4QG station will eclipse any existing Australian station.

Much of the success of 3LO centres round their announcer, Mr. Andrew, who I had the pleasure of meeting, and also their studio manager, Mr. Bearup. The transmission from 3AR is poor compared with that of 3LO, although a marked improvement was indicated just before leaving—their main difficulty, I understand, has been the procuring of transmitting valves.

Before leaving Melbourne all the leading wholesale and retail dealers in wireless were interviewed, and also several workshops were visited. Business generally, is on the upgrade, whilst the public are demanding higher grade sets and accessories. Nevertheless, price-cutting was much in evidence, especially on obsolete or inferior lines.

The first visit of importance on arrival in Sydney was to the Speedway, at Maroubra—there a public address system is in operation, and by that means the whole of the spectators are able to hear the results within a minute of the finish—owing to the high speed obtained by some of the motor cycles and cars, it is very hard at times to follow the progress of a race, and when the actual finish takes place many are in doubt, so by means of the loud speakers situated at different points, the correct results are known without delay. This method of announcing results could also be adopted with advantage on race courses, etc.

VALVE MANUFACTURING: The workshop of Amalgamated Wireless (Aust.) Ltd., Sydney, were visited for the purpose of ascertaining the whole process involved in the manufacture of valves. It was indeed interesting to note the many stages involved and the final tests conducted before the finished article was passed as O.K. and placed in the packed for sale. Other items of interest inspected included the A.W.A. audio frequency transformer, and the rebuilding of the transmitting equipment for the new station of 2FC

The next place of interest visited was the works of the Electricity Meter Manufacturing Co., Ltd. I feel sure there is no plant to equal it in Australia. The whole process in the manufacture of the recording meters used on our electricity light services was inspected, and information was freely given. Every part is manufactured, from the small brass wheels forming the counting mechanism to the cover. The whole of the top floor of the building is occupied on this work; and after the meters have been assembled a sequence of tests are conducted, until the final test for accurate recording is reached. In conjunction with the City Council these meters are passed by a representative, and thus double testing is obviated.

The great variety of machines provide means for all classes of stamping work, making of magnets and the flashing of same; automatic machines turn out small and large wheels for the meters, and other work that cannot be handled economically by slower methods; a bakelite plant is in operation for the manufacture of coil plugs and dials—in fact, there

appears to be a sufficient variety of machines to handle on a commercial basis work involving the manufacturing of articles by the thousand, tens of thousand, or even greater quantities.

It was with considerable regret that I had other business that compelled an early departure, for the machinery was so interesting that I could have filled in several days instead of several hours.

2 F.C. FARMERS' BROADCASTING SERVICE: On arrival in Sydney it was not long before I heard the rumour "Farmers' are reducing their wave length." As I felt there was no foundation in this rumour I took the opportunity of calling on Mr. Anderson, Manager of 2FC. Mr. Anderson gave me a very nice welcome, and I had the privilege of placing my views before him. He pointed out that farmers' never had any intention of reducing their wave length; in fact, they had gone so far as to investigate the reception of 2FC in daylight and at night in various parts of New South Wales, and as a result, were satisfied they were giving an efficient continuous day and night service. He further pointed out that in a few weeks time they would be on the 10 kilowatts output (double their present output), and expected much better results when the new station was completed at Pennant Hills. He further pointed out that Farmers' would not be satisfied with their transmission until it was second to none in Australia.

The public, therefore, should satisfy themselves before purchasing a set that if they desire to receive

You'll spend less for batteries— You'll have better reception—

When you buy Willard's you buy Batteries that last for years. Your investment in Battery economy is an investment in better reception, too, for these

Batteries are rechargeable. No need to tell the difference this makes in the quality of reception.

Obtainable from all Licensed Dealers

Queensland
Agents

Motor Supplies Ltd.

Where Adelaide and Boundary
Streets meet—Brisbane.

Willard

RADIO BATTERIES

2FC Broadcasting Station that such a set must be capable of tuning up to 1100 metres.

GENERAL RESULTS.—Every opportunity was taken by ascertaining what, if anything, was being done to place the wireless industry on a more satisfactory footing. It is generally considered by all reliable radio dealers that unless something is done to improve broadcasting, and control to some extent the sale of sets and accessories, development will be considerably retarded. It is confidently to be expected, now that Mr. Fisk, Managing Director of Amalgamated Wireless (Aust.) Ltd., is back in Australia, in conjunction with the other firms who practically have the wireless industry under their control, will take such steps that will remove these anomalies and thus remove the impression in the minds of many people that wireless broadcasting in Australia is comparative, at its best, to a very inferior gramophone.

Those of us who have studied wireless from the scientific standpoint realise fully the unlimited scope that wireless broadcasting has in Australia, and provided its development is carried out on sound lines, the great boon it will be to our country cousins can hardly be conceived by the most optimistic.

After all my ramblings I have come back to Brisbane, knowing that the public of Queensland are being catered for as well as, if not better than, in the Southern States, and look forward with confidence to the practical support of citizens in this State. It

is felt that the public are at last aware, or are becoming of the important fact that unless a firm selling wireless apparatus to the public can give service it should not remain in the wireless industry.



Country Doctor: "And what seems to be wrong with him, Mrs. Brown?"
 "Well, I dunno. The other night he was readin' in th' paper how all this here radio stuff that's in the air—jazz an' lectures an' weather reports an' bedtime stories—passes clean through a body without a body knowin' it, an' ever since he's just been kind of upset in 'is stummick."

STEEL SERVICE

Over the telephone comes an order from Longreach for Steel Flood Boats. By wire is flashed the need of a Townsville storekeeper for Structural Steel Framework for a new building. In the city we are telephoned and interviewed for quick delivery of Big Cranes, Structural Steel Girders, and Cantilever Awnings.

These form a hundred odd orders of a single day. Some can be filled at once; in others, conditions spell delay. But in most instances when speed is essential, our large stocks of steel, our points of distribution and our system of delivery unite to make Harvey Steel Service an influence in the placing of orders.

HARVEY & SON

"Staunch Service"

Structural Steel Engineers

MARGARET ST., BRISBANE

S.A.S.

Listeners We All Know

The Man Who Insists on Silence

The maidservant, answering your ring at the front-door, gazes at you in a pained, reproachful, and even slightly scandalised way. From her mien, you derive an impression that you have somehow stumbled clownishly over all the conventions and usages of polite society. "Well, yes, sir, Mr. Bruffleigh is at home," she concedes reluctantly. "But," she adds, as though this closes the whole matter, "he happens to be listening, just at present."

"But it—it's rather an important matter I want to see him about," you falter.

"Well, I'll go and see," she promises, on a quite unencouraging note.

She permits you to enter the hallway, and closes the front door with a sort of tense and meticulous quietude.

Then she leaves you, and you notice that she goes off on tip-toe.

You wait, and go on waiting, and presently you become increasingly aware of the eerie hush that holds the house. You feel that you want to break the spell by whistling, by indulging in farmyard imitations—anything!

Fortunately, the girl reappears before you succumb to your environment. She beckons, and you follow her into the presence of Mr. and Mrs. Bruffleigh.

Bruffleigh, caparisoned with headphones, is sitting rigidly upright in an arm-chair, with his back to you. Mrs. Bruffleigh is sewing, and as you approach her with polite greeting, she gives a nervous little shake of her head and an anxious glance towards her husband.

"He doesn't like to be disturbed," she whispers. "Take a chair. He'll look round presently and then—"

But Bruffleigh does not look round presently, and another five minutes drag by. You have become thoroughly familiar with the pattern of the Bruffleighs' carpet and the design of the wall-paper.

Mrs. Bruffleigh stitches on and on.

"Do you think he'd mind if—" you venture at last.

"Well, I don't know," she whispers back. "He—he doesn't like being disturbed. Won't you—won't you look at the paper?"

You look at the evening paper. You begin by skimming lightly through it; you end by reading all through every line of it, including advertisements.

"I'm afraid this is rather slow for you," observes Mrs. Bruffleigh, at last.

"Oh, no, not at all!" you lie.

To your joy, Bruffleigh hears your voice. Bestirs in his chair and looks round at you. You are going up to him with outstretched hand when he holds up his palm and frowns repressively at you. You return to your chair.

But soon you notice the time. Greatly daring, you rise and stand before him. He scowls displeasably.

"I say—" you begin.

"Please, please!" he snaps. "I always insist on absolute silence. You must forgive me, but it's the rule of the house."

"Yes, but—" you try again.

"At the present moment," he announces stiffly, "a most important address is being delivered."

You return to your chair and, after a short period of indecision, remind him once more of your existence.

"Now, what is it?" he demands, pettishly.

"Young Carruthers—" you begin.

He clicks his tongue.

"I don't want to hear about young Carruthers when I'm listening," he declares. "If you'll only just wait a moment—"

You refrain from the obvious retort. And, after a while Bruffleigh does indeed turn to you of his own initiative.

"Now what's this you're trying to tell me of young Carruthers?" he asks.

"Why, I met him about half an hour ago, and he asked me—"

Bruffleigh's palm shoots up to hush you.

"There's an announcement coming through," he states. "Let me have absolute silence please, while I listen to it."

Again there is a long wait. Then Bruffleigh once again addresses you.

"You were telling me—?"

"Oh, I'm afraid it's much too late to bother now," you reply, with ill-concealed glee. "You see, Carruthers is off to South Africa to-morrow, and he asked me to tell you that he was going to the club for ten minutes this evening and that, if you'd look in at once, he'd repay you that tenner he owes you. But he'll have left again by now. If only you hadn't insisted on absolute silence—"

But silence does not settle again for a long while. Bruffleigh keeps breaking it, unstintedly, passionately, and with much vain repetition.—F. Morton Howard, in the "Radio Times," London.



BIG 4QG

PROGRAMME ARRANGEMENTS

For the Opening Week

Although all details have not yet been finalised, sufficient progress has been made in connection with the arrangement of the programmes to be broadcast from the new station (4QG) during the first week of its official opening, for a rough forecast to be made.

With modern studios, and with all facilities for working them available, the programmes should leave little room for complaint.

The station will be officially opened on a Monday night some time during April, and the following are the programmes which have been arranged for the opening week. The night sessions only are referred to:—

Monday: Studio Concert, Ithaca Orchestral Society, Lyric Glee Party, Official Opening Speech, leading artists assisting.

Tuesday: Federal Band Concert from the Studio, Centennial Hall Orchestra.

Wednesday: Special "Queensland Radio News" night.

Thursday: Popular Studio Concert, Greater Brisbane Municipal Band Recital.

Friday: An entertainment by the Paramount Sextette.

Saturday: Popular and dance night.

Sunday: Morning and evening services from the Ann-street Presbyterian Church. Afternoon: Band concert. Night: Band concert.



Famous Symbols

The World's First Valve

Was Made by EDISWAN



- A.R. Bright Emitter 10/-
- R. Bright Emitter 10/-
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Stocked in English and American Caps by all Wireless Dealers, or wholesale from

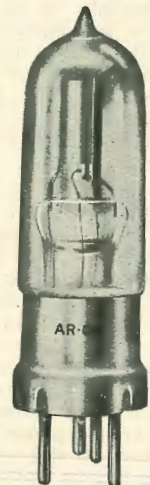
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Use the Famous

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and Hear Everything



TYPE A. R.
Plate Voltage, 30-80.
Filament Voltage, 4.
Normal Filament Current
0.75 amperes.



TYPE A. R. 06.
Plate Voltage, 20.50
Filament Voltage, 2.5.
Filament Current, .06 amperes

Wireless Nuisances

Action of Loud Speaker "Hogs"

There are many things happening in the wireless world to-day, which tend to retard and bring discredit on the wireless movement, and these are generally held up by critics of wireless as matters which quite amply demonstrate the fact that wireless "never was any good" or "never will be any good."

In our last issue we referred to the operations of a certain gentleman who, posing as a wireless expert, was selling receivers which were of little practical use, was making extravagant claims for these receivers, and was resorting to sheer fraud to secure customers.

When publishing the details, we pointed out that this was a case in which wireless was not being developed but was being seriously retarded. Every person to whom faulty receivers are sold and by whom good results are not secured cannot reasonably be expected to become a good "booster" of wireless. And every right thinking wireless enthusiast must surely realise that it is the interests of every-body connected with broadcasting to "boost" the movement.

The value of the services provided from the several big stations now in operation in Australia, depends absolutely and entirely upon the degree to which the broadcasting movement is boosted and consequently supported.

In Queensland this state of affairs is even more noticeable. A service has been launched in a State which is much less thickly populated than of the other States in Australia, and the financing of the service is a very simple matter. The cost of the upkeep and running of the station has to be borne out of the revenue available in license fees.

The larger the number of licenses taken out the more money becomes available to the station, and the better able are those in command to give an improved service.

Surely then, the more broadcasting is "boosted" and the more people are introduced to it, the greater will be the number of licenses taken out, the greater will be the revenue to the station and the better should be the services given.

BUT, must not the greatest of care be taken to see that wireless is boosted in the right and not in the wrong way?

Must not the greatest of care be taken by one and all associated with the movement, whether in the capacity of an official of some station, a radio trader, or a member of the listening public, to see that people who are introduced to wireless make their acquaintance with it under conditions which will cause them to appreciate it, and compel them to express a desire to own a set of their own?

The answer is surely "yes," but it is questionable whether such care is being taken.

Some few days ago a letter appeared in the columns of one of the Brisbane daily papers, pointing out that loud speakers are becoming a nuisance. It was apparently written by a man who is not a wireless enthusiast, and who has been introduced to wireless in a manner not likely to raise any amount of enthusiasm in him.

In effect, the letter pointed out that at the present time, loud speakers are being installed at hundreds of points around Brisbane, and are being operated in such a manner as to cause annoyance to neighbours. The writer did not claim that interference was being caused in the "wireless" sense of the word—that the sets were reradiating—but he spoke purely from the point of view of "noisy" interference. He pointed out that loud speakers were overloaded, and gave forth to the neighbours, at all hours of the night, squeaks and hoots, as well as poor reproduction of musical items.

Those who have been associated with the movement for any length of time know that the statements made by the correspondent to the newspaper are unfortunately only too true. Furthermore, they know that the nuisance which is created nightly by loud speakers does a great deal towards damaging the wireless movement and retarding its advancement.

There exist very large numbers of enthusiasts who seem to judge a wireless receiver in terms of the volume of sound which will pour from a loud speaker attached to it. Whether that sound be pure and undistorted, whether it be free from all foreign noises is quite immaterial to them. As long as the set will make a large noise it is a good one in their opinion.

When the wireless movement was first launched in Sydney and Melbourne some time ago, it was a common thing for traders to operate large sets in their shops and to wire loud speakers at the door so that passers-by could hear wireless. So badly were many of the sets operated, and so awful was the din produced from the loud speakers that it was common to hear the remark, passed in the street, "Oh, it is only wireless."

Just pause for a moment and see the seriousness of it all!

Just try to imagine wireless, the world's eighth wonder and the most remarkable movement of the present age, being referred to as "only the wireless."

Shopkeepers were not the only ones to blame, but they seem to set the bad example in the south.

In Brisbane, many private owners of sets seem to be serious offenders.



**The Greatest Bargain I Ever Made
and I Only Paid**

£5 Deposit

**HARRINGTON'S
POPULAR RADIO RECEIVERS**

- 3 Valve £27/10/-
- 4 Valve £32/-/-
- 5 Valve £40/-/-

The above New Models have unusual range, selectivity and wonderful tone quality. Only the very best of parts are used. The cabinets are polished in Oak or Maple. Supplied with all accessories, either dry batteries or accumulator, and loud speaker.

*And all carry our 12 months' Guarantee.
No Extras to Buy*

Harringtons Ltd

Photographic and Radio Warehouse

93 Queen Street
BRISBANE

**CUT OUT
AND POST**

Branches in All States
and N.Z.

Please send me Post Free,
Illustrated Folder of Radio Sets.

Representatives
Everywhere

Name

Address

A little thought should convince every person of the foolishness of overworking a loud speaker.

Suppose, for the sake of argument, that a man living in one of Brisbane's suburbs possessed a gramophone capable of delivering so large a volume of sound that it could be heard several blocks away, and supposing that he insisted on working that same gramophone in the same way for three or four hours a night, seven nights in the week. After an hour or two he would be regarded as a public nuisance—and rightly so, too. Yet, at the same time, gramophones generally would not be to blame. The owner of the particular one to which we have referred would be the offender.

And so it is with wireless.

Broadcasting, no matter what may be said to the contrary, is purely a home recreation, and not a matter for public demonstration or entertainment.

The set owner who operates a loud speaker, just loud enough to comfortably fill a room without jarring on anybody's nerves is not only obtaining the best results from his set but is also introducing wireless to his friends in a manner which will result in their being impressed with it.

It should be the object of every true wireless enthusiast to kick very hard the man who comes to town with a large smile and says to one and all: "I have a wonderful set, I was working it last night, and you could hear the programme three streets away from my house."



Radio in the Bush

A CAMPER'S SET.

The above photograph shows a three valve set manufactured by Messrs. Smith and Gibson being used by Mr. G. Williamson, the popular tenor soloist at Station 4QG. The photo was taken at the foot of Mt. Glorious where excellent reception was secured. The aerial was made by throwing a stone which the wire was attached, over the branch of a tree.

A Cocky's Letter to 4QG (II.)

(2 the Manager, 4QG.)

Dear Sir,—

i c u 'ave received my 1st letta to u, cause u 'ave answered it. the pants u cent were just grate but i fink u should 'ave called 'em x-ray pants 'cause their worn that threadbear ya can see thro 'em. I've been a readin' the broadcastin' 'anc-book, published by Null and Void, and it says in it that "all safety pins should be removed from baby's person as this prevents 'owling in the amplifier." a prickly pear (i almost put 'eat) inspector who dropped last tuesde, remarked on mum and sarah been dressed in the latest fashion. i explained that I believed in the abbreviated clothes 'cause it kosts me less 4 the material. That bloke wot plays the mouth horgan 4 yours, ain't got anyfing on my 'ector—e puts sole into it and i fink the 'eels as well. i was disgraced last week, dave 'ad a bit of an argument with halligan, of the pub, an' next day the cop come and run 'im in for 'ittin' halligan on the 'ed with a bottle of "still goin' strong." well it's aluse taken four cops to run me in. Wot's the hidea of these yellow and blue cabs. i've 'eard of the green cart, but not 'em ovfers. wen i was down at the "big smoke," 4 me holidays i saw that feller george wallace, at the hempire and i am a wonderin' if he's told that yarn yet. ere's a goode: a girl walked into a shop and—(the missis sezs i'm not to tell it and you're worse than i am to enkourage me).

a bloke kame here yesterde, who prays 4 rain. well i gave 'im a quid, and i let 'im pray. i fink it was marvellous work 'cause it did rain. 'is prayer musta be answered. it was wonderful. but anyow it would 'ave rained wifout 'im. me airael come down in the storm, but i'm tryin' out some barbwire, it should be good. we 'ad a travellin' lot o' hactors last week. they played "the count of monte cristo." i fink 'es another one of those rushin blokes wot were chased out by the reds. e 'ad a rushin coat on too. it was rushin half way hup 'is back. well when he hescaped from boggo-rood (it said the chateau d'if on the program) he climbed up on a rock (it was really Jock's table covered with heshin) and shouted (no, not for the mob), "The world is mine," but he got a l. of a shock when i sang out "what'll take for breakfast creek." ya know i've got a scheme to water the prickly pear wif it. Breakfast creek would kill anyfink. ya know up ere lots of people 'ave got their wireless sets and they all say that the best hitems of the month were "Show me the way to go 'ome," sung by Jack Kellaway, and "California, 'ere i kome," the Japanese national anthem. would u mind arskin' Mr. Scott MacCollum if 'e could let 'ave some cat-gut hoff his fiddle strings for me fishin' line. i didn't get ya to' well last nite, believe it musta been the fowls roostin' on the airael. look 'ere, when is ya goin' to hopen up the new station. i serpose it won't be as clear as it'll be a few yards further away than the oofer one. I've never 'eard a lecture on love yet from your stashun. if ya don't know anyfink about it I'll tell ya this, it'll do fore one lecture—there are several kinds of love. 'ere are some of

'em, the receptive love of a bashful swain who forces the girl to make advances to 'im. Reverse gear on the kisses, the love of a cave-man who forces 'is attentions on an unwilling girl. Kisses which miss fire. is it any wee georgie elinor glynn. the old girl is shoutin' hout fore me to come and put timmy to bed as it's seven o'clock. timmy 'ad a birthde yesterde, e was 47 the last f' remember, but as i 'ave a bad memory i couldn't be sure 'ow old he is now. Timmy does like the bedtime story, by the way mr. robinson is you any relative of that old gold king, mac-robinson or the barley man, but as Milton sezs as where there's a will there is always a relative.

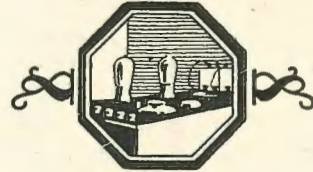
Well, i must go now, and i'm sure you expected me to write a little more than these few lines.

"A jew," or whatever it is,

Your ole college chum,

"DAD WOOP."

P.S.—could you sent me particulars of the entrance of the Y.M.C.A., as me gran'dad wants to become a member.



RADIO FANS

Make a note of this: Chris Turner Ltd. execute Fine Press Work and Lathe Work for Radio Parts at most reasonable prices.

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Don't practise false economy by buying cheap unknown brands of components. Let us guide you in a wise selection of apparatus which will give you good results

Evidence

We have on our files, dozens of letters from clients in all corners of Queensland, testifying to the excellence of Dulcephone Receivers and the calibre of our service. Our enormous country trade has been built up on sound methods allied with individual attention to each and every client.

A Radio Set is one of the most sensitive instruments yet devised, and for this very reason you should, if you strive for best results, choose the necessary parts with the utmost care. Nothing but Quality Parts find a place on the shelves of Wireless House Limited, and it is most satisfactory for you to know that when purchasing here you are assured of guaranteed parts at prices that are, by comparison, decidedly keen.

Crystal Set Accessories

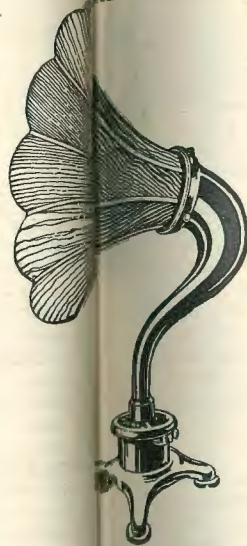
- | | | |
|--|---|-----|
| Crystals— | Grodan Perikon Detector, new type, each | 4/9 |
| Neutron, the Wonder Crystal packed in neat metal protective case, each | "Everset" fixed Detectors for Reflex circuits, each | 4/- |
| N.H.M. Galena, tested and guaranteed, each | Ebonite Knobs (bushed), ea. | 6d. |
| Hertzite (genuine), each | Grodan Spider Web Formers with Mounts, each | 1/3 |
| Midite, each | Grodan Spider Web Formers, without Mounts, each | 9d. |
| Carborundum, each | Multi Phone Connectors, for fitting more than one pair phones to a crystal set, pr. | 1/- |
| Zincite, each | Terminals, Brass, each | 3d. |
| Bornite, each | Terminals, Nickel-plated Phone, each | 5d. |
| Crystal Detectors: | Aerial Wire 3/30 H.D.C. per 100 ft. | 2/9 |
| Grip Detector (with cat-whisker), each | Electron Aerial Wire, sold in Cartons, per 100 ft. | 3/6 |
| Horizontal Glass Barrel type, mounted on ebonite, each | | |
| Horizontal Glass Barrel type, Vernier adjustment, each | | |

RHEOSTATS

- | | | |
|--|---|------|
| H. and H. Rheostats, 30 ohm. with Knob and Pointer, ea. | Bradleystats to suit all tubes each | 15/- |
| H. & H. Rheostats, 30 ohm, with Knob and Calibrated Dial, each | Advance Rheostats (Shielded), 6 ohm and 30 ohm, ea. | 4/6 |
| | Yaxley Rheostats, 30 ohm, each | 8/6 |

SOCKETS

- | | | |
|--|--|-----|
| Standard R. Socket Panel Mounting, each | H. and H. Standard V.T. American Socket, Porcelain, Cushioned feet, with Shur-Grip Springs, each | 4/6 |
| Standard R. Socket Anticapacity, Table Mounting Type, each | H. and H. U.V.199 Socket Bakelite, Cushioned feet, with Shur-Grip Springs, ea. | 4/6 |
| H. and H. Standard V.T. American Socket, Bakelite, Cushioned feet with Shur-Grip Springs, each | Weco Sockets, Bakelite, each | 3/6 |



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No. 80-0

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| Jeffers ratio 3 to 1, each | | 0 18 6 |
| Jeffers ratio 6 to 1, each | | 1 10 0 |
| A.W.A. ratio to 1, ea. | | 1 5 0 |
| A.W.A. ratio to 1, ea. | | 1 5 0 |
| R. I. Transformers, ratio 4 to 1, | | 2 2 6 |
| Igranig ratio to 1, ea. | | 1 10 0 |
| Igranig ratio to 1, ea. | | 1 12 6 |
| Igranig Transformers, Honeycomb type to Plug inductive Socket. | | |
| No. 1. — 28 metres each | | 0 12 6 |
| No. 2. — 30 metres each | | 0 15 0 |
| No. 3. — 2090 metres | | 0 17 6 |
| No. 4. — 3200 metres | | 1 0 0 |

Ours is the oldest established Radio Store in Queensland, and by reason of good buying on the best of overseas markets we are enabled to offer values unapproached by any other Radio Store in the State. We claim that nowhere will you secure the same good quality, the same keen prices and the same excellent service as that offered by Wireless House Limited.

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| 42 volt Ever Ready, ea. | 0 12 6 | 45 volt Columbia, extra large capacity, each | 1 15 0 |
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| 36 volt Hellesen, each | 0 10 6 | DRY CELL BATTERIES | |
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|------------------------------|---------|----------------------------|--------|
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| .0003 mfd, each | 1 12 6 | .0005 with Vernier, ea. | 1 2 6 |
| .0005 mfd, each | 1 15 0 | .001 with Vernier, ea. | 1 7 6 |
| .001 mfd, each | 1 17 6 | Nelslide Low Loss— | |
| | | .00035 mfd, each | 1 10 0 |
| | | .0005 mfd, each | 1 12 0 |

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| Brandes, per pair | £ s. d. | Scientific, 3000 ohm per pair | 0 17 6 |
| Mello, 4000 ohm, per pair | 0 14 6 | Sterling, 4000 ohm, per pair | 1 17 6 |

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- | | | | |
|---|-----|--|-----|
| English to American Adapters, each | 3/6 | Small Reel Insulators, each | 1d. |
| American to English Adapters, each | 3/6 | Liquid Spaghetti, per bottle | 1/9 |
| Stout Brass Spade Terminals, with set screw, each | 4d. | Sponge Rubber Phone Pads (to fit any type of head-
phone), per pair | 3/- |
| Large Copper Spade Terminals, per dozen | 6d. | Coil Plugs, with set screws, each | 1/3 |
| Best quality Spaghetti Tubing (full yard) per length | 9d. | Coil Plugs, De Luxe Pattern, each | 2/3 |
| Talking Tape, per 100 ft. | 7/6 | Panel Plugs, De Luxe Pattern, each | 2/6 |

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Our Catalogue

We have prepared a handsome 1926 Catalogue, which is now on the press. It has been designed and compiled purely and simply for the amateurs of Queensland. It is free—so if you would like us to reserve a copy for you, just drop us a line, and we will forward it on to you at our earliest

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PERSONALITIES

Mr. Humphries (of Amalgamated Wireless Ltd.), is at present engaged as Installing Engineer at big 4QG. Until recently, Mr. Humphries was connected with the sea-going staff of A.W.A., and he has the reputation of being one of the best key-punchers in the service.

Mr. Thorpe Riding is very keen on motor yacht radio, with his five valve portable he experiences good reception from Southern Broadcasting Stations. He is of the opinion that a radio receiver is a most necessary equipment to the modern motor yacht, and we're inclined to agree with him.

They say "a rolling stone gathers no moss." Well, one couldn't expect to find much moss on Mr. A. E. Dillon, who has now severed his connection in Brisbane to accept a position on the Bulloo Shire Council, Thargamindah, as electrical engineer. We regret his departure but wish him every success in his new sphere.

Many Wickham Terrace Medicos are adding their distinguished presence to the ever-increasing army of broadcast listeners. The latest recruit is Dr. Heaslop, who constructed his own five valver. The Doctor is anxiously awaiting the abatement of the Dengue epidemic, so that he will have a few minutes to test his receiver out thoroughly.

5CM (Mr. Sagar, of Adelaide, S.A.), is now attached to a Brisbane engineering firm. In the near future we hope to hear the gentle voice of his key purring forth upon our DX wavebands.

Mr. T. Armstrong (Queensland Radio Inspector), is at present in North Queensland. Some say he is installing a Radio Telephone Transmitting Station between the Townsville G.P.O. and Magnetic Island.

We hear that Premier McCormack intends to relieve the worries of Premiership with a dash of radio entertainment. We are pleased to hear if—but we sincerely hope that the radio bug does not bite him to the extent that he shall neglect his duties of office to try out our new circuits or to log some distant Yanks. There's no knowing.

Mr. T. A. Ferry, the Price Commissioner, is another Government official who installed a receiver into his home recently.

It seems that radio is going to be quite a fashionable habit—instead of the usual "Do you goff?" "Can you Mah Jongg?" so frequently heard among the aristocracy in Lennon's Lounge, we shall shortly hear: "Come along to our Radio Party, 'old thing.'"

Mr. Alex Lawton (late of Amico Ltd.) is now settled down in his new position as manager for Butler Brothers, USL Battery Service Station, in Creek Street.

4CM reports wonderful reception from his new location (the Observatory Tower, Wickham Terrace). He is so enthusiastic about the results he is experiencing that he is contemplating re-broadcasting KDKA and the new Rugby Station (Morse) during the coming winter.

Mr. Slattery has been appointed Queensland representative of Amalgamated Wireless (Aust.) Ltd., Sydney. The gentleman is well known among North Queensland amateurs for he has been connected with the Coastal Radio Service at Townsville and Cooktown for many years. Mr. Slattery has a happy style and a smile that will make for him many friends. We wish him every success.

Mr. Raymond McIntosh, the well known Sydney transmitting expert has been appointed assistant engineer at 4QG. Mr. McIntosh has for some time been connected with 2BL, Sydney. It will also be remembered by a few "Hams," that he featured in the construction of that well known and highly efficient amateur station, 2GR, Sydney. We feel sure that Station 4QG will benefit by the appointment of so capable an engineer.

Mr. Christie, the Deputy P.M.G. of Brisbane has installed a most handsome receiver in his office at the G.P.O. Naturally he is very proud of it. We have not yet heard it on broadcast reception, but if its performance is equal to its striking appearance and splendid workmanship, Mr. Christie might justly be the proudest amateur in Brisbane.

If big 4QG is not the most efficient station in Australia it will not be through lack of engineering skill. Mr. J. Reed whose photo appears elsewhere in this issue is regarded as the most capable installing engineer in the Commonwealth. He has arrived in Brisbane to supervise the installation of the new transmitters at 4QG. The experience Mr. Reed has gained whilst supervising the installations at 2FC, 3LO, and 5CL will surely reveal itself in the erection of our new station.

Mr. G. A. Campbell, of Stanley Street, South Brisbane, claims that we can now bid a long farewell to Old Man Static. He has just completed a device designed to cut out about 75 per cent. of static. Although this system includes axial earthing the aerial before it reaches the receiver, it will bring in 3LO, Melbourne, on three valves with splendid loud speaker volume when static is at its worst.

A local radio enthusiast had an unusual experience the other morning. Whilst waiting for the eggs to boil for breakfast he was quietly reading his newspaper, when he heard sounds resembling static issuing from his loud speaker. He rushed over to the set thinking he had forgotten to switch it off the previous night, and regretting the consequent loss of "juice" from his batteries. On investigation, the aerial was found to be switched off, the batteries disconnected, but still the crackling noise was heard. It took our friend quite a little while to discover that a huge beetle had crawled down the loud speaker and was floundering around on the diaphragm.

A Popular 4QG Artist Farewell Concert

A special farewell programme has been arranged and will be broadcast from Station 4QG, Brisbane, on Thursday, March 18, from 8 p.m. to 9 p.m. in honour of Miss Verna Morcom.



Miss Morcom leaves for Sydney en route to England on March 20, and when she arrives there will continue her musical studies under her old maestro, Charles Neville, late of the Carl Rosa Grand Opera Company. She expects to be away about 12 months.

Miss Verna Morcom, who was one of the earliest artists to broadcast in Queensland, has a soprano voice of very fine quality. She has featured on the regular programmes at Station 4QG, and has also contributed largely to the success of the various "Queensland Radio News" nights which have been given from time to time.

In the farewell concert Miss Verna Morcom will appear and will be supported by leading artists. The programme will be as follows:—

- Baritone Solo—"Vale" (Russel)
Mr. FRED HOMER.
- Instrumental Number—"Minuet" . . (Paderewski)
THE STUDIO QUARTETTE.
- Soprano Solo—"Lo, Here the Gentle Lark" (Bishop)
Miss VERA MORCOM (with flute obligato by
Mr. B. KELLY).
- Tenor Solo—"I Hid My Love" (D'Hardelot)
Signor CORTI.
- Violin Solo—"Serenade" (Drigo-Auer)
Mr. H. SCOTT MacCALLUM.
- Vocal Duet—"Night in Venice"
Miss VERA MORCOM and Signor CORTI.
- Mezzo Contralto Solo—"Softly Awakes My Heart"
..... (Saint-Saens)
Miss MARGARET LLOYD.

Instrumental Number—"Solveig's Song" .. (Grieg)
THE STUDIO QUARTETTE.

Soprano Solo—"A Heart That's Free" (Robyn)
Miss VERA MORCOM (accompanied by the Studio
Quartette).

Vocal Duet—"Miserere Scene" (from "Il Trovatore"—
Verdi)

Miss VERA MORCOM and Signor CORTI.

A PRINCELY TRIBUTE TO A RADIOMAN

In the reports of the rousing welcome which was extended to the Prince of Wales when he arrived home after his 25,000 mile voyage to South Africa and South America, considerable space was devoted to the manner in which the heir to the British throne recognised personal services of the officers and others in the official party and the distribution of numerous gifts and souvenirs. Yet that which was probably the most considerate act of all received scarcely any notice. It was the speeding up of the battle cruiser, Repulse, so that she would arrive at Spithead earlier than originally intended, in order that a young radio operator on board the vessel would be enabled to attend the funeral of his father, who died at London several days before the returning voyagers were due home. The operator was the son of Fred Bramley, Secretary General of the Council of the Trade Union Congress.

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S.A.S.

"Radio News" Concerts

Continue to Find Public Favour

The usual monthly "Queensland Radio News" concert which was organised and arranged by your editor and Mr. Erich John (Brisbane's gifted pianist) was held in Mr. John's studios on Friday February 12th, and was broadcast by station 4QG. It excited a good deal of comment, and we feel quite safe in saying that it was appreciated.

In making this statement an attempt is not being made to throw a bouquet at the "Queensland Radio News," but rather a public expression of appreciation of the efforts of the various artists concerned is being made.

It must be remembered by the public that the services of these artists are given quite free in order to provide a capital entertainment, and no effort whatever is spared by anybody associated with the entertainments to make them a success. Much time is taken up with

rehearsals, and the actual providing of a two-hours' programme in a small studio on a Brisbane February night is by no means a light task.

February's concert was provided under very trying conditions indeed, but all the artists taking part in it did so quite cheerfully.

We feel that it is our duty to publicly acknowledge their fine spirit and to thank them for their services, and we feel sure that listeners generally will reiterate our sentiments.

The Next Concert.

The next "Radio News" concert will be given during the opening week of the big station. Mr. Erich John is putting forward every effort to prepare a good programme, and we feel sure that radio enthusiasts will have presented to them an entertainment which will be second to none.

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A Radio Dictionary

(We feel the necessity for an authoritative reference to the terms used in radio to which our readers can at any time refer when they come across some technical expression, whose exact definition is, perhaps, beyond their ken. We herewith present to our readers the third instalment of this Dictionary which will be continued monthly until its completion.)

ANODE.—The positive element in a coil, terminating in the negative pole. Opposite to kathode.

ATMOSPHERICS.—Known as Statics and "X's." Sounds produced in the receiver by atmospheric electric disturbances.

ATOM.—The smallest division of an element.

AUDIO FREQUENCY.—A frequency or time period which can be detected by the human ear.

AUDIO FREQUENCY TRANSFORMER.—A transformer used in connection with oscillations of an audio frequency.

BATTERY.—A combination of a number of cells.

"B" BATTERY.—The battery which supplies the current used to charge the plate is a vacuum tube receiver.

BINDING POST.—A terminal.

CAPACITY.—The power of storing electrical energy.

CARBORUNDUM.—A crystal possessing rectifying properties used for detection of wireless messages. Needs a local current across it.

CONDENSER.—A combination of apparatus for holding electrical energy. Its capacity depends upon the number and area of plates, the distance between the plates, and the specific inductive capacity of the dielectric (see dielectric).

CHOKE COIL.—A coil used in transmitting apparatus. It has the power to choke back high frequency currents, but will allow low frequency currents to pass through it. Used as a protector of portions of the transmitting apparatus.

CIRCUIT.—A complete path along which a current travels.

CONDUCTOR.—A body which will allow an electric current to flow through it. Best known conductors are silver, copper, gold, zinc, platinum, iron, carbon.

CONTINUOUS WAVES.—A series of waves each of the same amplitude.

COULOMB.—The quantity of electricity which will pass a given point in any circuit carrying an unvarying flow of one ampere per second.

CRYSTAL.—A mineral possessing the ability to allow a current to pass through it in one direction only.

DAMPING.—The dying down of ether waves.

DETECTOR.—The portion of a receiving set which converts the received oscillations into uni-directional currents.

DIAPHRAGM.—The vibrating disc in a telephone.

DIRECT CURRENT.—A current which flows steadily in one direction.

DIELECTRIC.—The insulating medium between the plates of a condenser. Different dielectrics have different powers. The specific inductive capacity of a dielectric is the relation it bears to dry that of dry air which is taken as unity.

DRY CELL.—A cell, the constituents of which are in a dry state. A cell containing no fluid acid.

DYNAMO.—A machine for generating direct current.

ELECTROLYTIC DETECTOR.—A detector, employing the principle of electrolysis.

ELECTRO-MAGNET.—A magnet caused by the flow of an electric current around it.

ELECTRO-MAGNETIC WAVES.—Waves set up in the ether by the production of electrical oscillations, the energy of which is alternately converted from an electrostatic to an electromagnetic form.

ELECTRON.—The smallest charge of electricity. The final atom of negative electricity.

ELECTRO MOTIVE FORCE.—Difference of potential. Unit is the volt which is the EMF required to force a current of one ampere through a resistance of one ohm.

FARAD.—The electrical unit of capacity. It is that capacity which, at a pressure of one volt would be charged with one coulomb of electricity. Microfarad equals one millionth of a farad.

FREQUENCY.—Number of waves per second.

FILAMENT.—The wire inside a bulb or valve which glows when the current passes through it.

FIXED CONDENSER.—A condenser, the capacity of which is fixed. Differs from variable condenser, the capacity of which is variable.

GALVANOMETER.—Instrument which measures currents. It measures by means of the magnetic field around the conductor.

GENERATOR.—Machine which generates electricity—a D.C. or A.C. dynamo.

GRID.—The piece of wire or gauze placed between the filament and plate in a thermionic valve.

GRID CONDENSER.—A condenser which is placed in series with the tuning instruments and the grid of the detector valve.

GRID LEAK.—A high resistance, generally of some negative value, connected across a valve grid condenser in order to prevent paralysatias of the valve. It helps the charge in the condenser to quickly leak off.

GROUND.—The earth connection and system.

HENRY.—Unit of inductance. That inductance possessed by a circuit where, when variation of one ampere of the current flowing is made per second an induced back E.M.F. of one volt is created.

HERTZIAN WAVE.—An electromagnetic wave. Named after the discoverer, Dr. H. Hertz.

HYSTERISIS (magnetic).—The lagging of magnetism behind the force which produces it.

HYSTERISIS (dielectric).—The lagging of stress in a dielectric behind the force which produces it.

IMPEDANCE.—The choking effect offered by a coil of wire to a current, and due to the inductance and ohmic resistance of the coil.

INDUCTANCE.—Electrical inertia. The power which tends to oppose any change in current flow.

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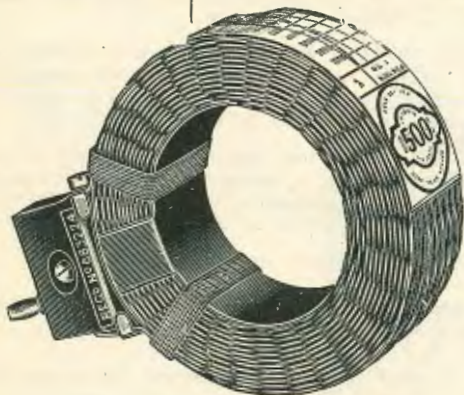
The famous STROMBERG CARLSON and COLIN R. KENNEDY Receivers solve the problem for those requiring a de luxe set, whilst the Five Valve RICO-DYNE at £24, stands alone amongst the lower priced outfits.

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COUNTRY CLIENTS are especially invited to write to us. Prompt attention assured.

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CLUB ACTIVITIES

Wireless Institute of Australia (Queensland Division)

Congratulations must be extended to Mr. R. B. Brown, 4RB, as the first Queensland amateur to maintain communication with the Old Country. Mr. Brown was in touch with G2D on several occasions and although only using an input of 20 watts, was easily read in England. Unfortunately, his tube blew out and prevented an attempt on the low power record. Better luck next time Brownie. 4RB is also the official operator of the Institute, Station 4WI, and has been successful in working New Zealand stations on every occasion he has tried since the 35 metre set was completed. Q.S.L.'s to this station have been received from all over Australia.

The art union which is being conducted by the Queensland Division to purchase equipment for the laboratory will be drawn soon after the appearance of this magazine, but there will be time for all to purchase a few more tickets and help along a good cause. Tickets may be procured from all dealers interested in amateur experimenters or from the Secretary, C/ Courier Building. If you can sell a book of 10 better still, it will only cost you 9/-, and a six-

valve set for the small labour entailed in selling nine tickets is surely value enough for anyone.

Owing to pressure of business, Mr. T. H. Dutton who has so capably filled the office of Hon. Secretary to this Division, has had to give up the work, and for the time being, Mr. C. W. Stephenson is taking over. The thanks of the members are due to Mr. Dutton for all the time and effort he has put into the job

If any reader of these notes is interested in experimental wireless and desires to join up with the Division he should write to the Hon. Secretary. If sufficient encouragement is given a Morse class will be again formed this year. Write to Mr. Stephenson, C/- Courier, and tell him what you want, and also make any suggestions you can as to how the Institute can help the amateur along. The council are willing and will help in every possible way. From time to time notices of special transmissions and tests are received and reports asked for. This Division is desirous of having a list of reliable experimenters who are prepared to co-operate in this work. As a considerable number are from official stations it is considered an honour to be asked to assist in this way. Can we put your name on the list of those to whom particulars of these tests can be sent and replies expected.

Wooloowin Radio Club

February has been a busy month for this Club. Quite a lot of work has been done to the Club-room and transmitting gear. The painters and carpenters of the Club have put the finishing touch on everything. Our electrician also has been busy and we now have the electric light in the room. Then one Saturday, the "experts" decided they would show the "learners" how to erect the aerial. At a recent impromptu speech night, quite a lot of remarks were made about this Saturday. Anyway, the aerial is up. If looks go for anything, the pyrex insulators and the large knife earthing switch practically assure success. Our "key puncher" expects to be on test about the 6th inst., so look out you DX fiends, and let us know if you pick up 4WN.

We have been in communication with Sydney and Melbourne Clubs last month, and many interesting matters have been written about. Correspondence from interstate clubs is always welcomed.

Our Secretary has concluded his series of lectures on "Motors and Dynamos." These were very instructive, and the lecturer went to a lot of trouble with diagrams to illustrate his subject. Our next meeting night takes the form of a "Sale and Exchange" evening. We anticipate quite a busy (and amusing) evening, as everybody will be delving into the accumulated rubbish, especially as articles are to be sold "with all faults." Graceville Club has been invited to come along and visit us this month. Somebody made a remark recently that they thought Wooloowin Club was "slipping." Well, my dear sir, don't you believe it. Come along to the meetings and you will soon find that we have as much "kick" in us as any other club. New members are still coming along, and the future of our Club looks exceedingly bright. The Secretary's address is Lisson Grove, Wooloowin, Brisbane. Visitors are always welcome at the Club meetings on Thursday nights.

Experimental Station 4HW

An Interesting Description

The apparatus installed at Experimental Station 4HW comprises a 10 watt transmitter and a low wave receiver.

The station is owned and operated by Mr. H. D. Walsh, and is situated above the premises of Messrs. G. O. Wills and Sons Limited, 110 Elizabeth Street, Brisbane. The transmitter employs one oscillator tube and one modulator, both being 5 watt Radiotron valves.

The oscillating circuit consists of the Armstrong tuned plate system, with no coupling between grid and plate coils, regeneration being obtained and controlled by a small five plate condenser between grid and plate of the oscillator. A switch is provided by which the modulator may be paralleled with the oscillator to give greater power for C.W. work. Modulation is effected by choke control (Heising method). The aerial and plate circuit coil consists of 18 turns 16g. bare wire wound on an ebonite strip frame and is tuned by two moveable clips. The grid coil is 22 turns, 18g. enamel, wound on a varnished cardboard former, and is tuned by a variable condenser. A blocking condenser inserted between plate and coil keeps the high plate voltage off the aerial coil. This condenser has mica dielectric, its capacity being .002 mfd. It is specially made for transmission and will withstand 4000 volts.

The aerial series condenser is variable, .0015 max. capacity, and is of the ordinary type except that the plates are immersed in oil to increase capacity and break down voltage.

The grid condenser is a good standard make of ordinary receiving condenser, mica dielectric, capacity, .002 mfd.

A Stromberg-Carlson low resistance microphone is used, the face having been cut away and a mica diaphragm substituted for the standard metal one. A spark coil is used as a modulation transformer, and by means of a plug and two jacks the modulation may be impressed direct on to the modulator tube or on to a speech amplifier, which consists of a UV 199 tube, which outputs through a standard audio transformer on to the grid of the modulator tube. A grid bias of 42 volts is used on the modulator. Bias on the oscillator grid is supplied by a 5000 ohm leak. Filament current for the power tubes is supplied by a 10 volt accumulator, which is kept fully charged by means of a mechanical rectifier.

Plate current is supplied by a generator delivering a maximum power of 100 watts at 600 volts, its power being controlled by a field regulator. The generator is driven at a speed of 3100 r.p.m. by belt from a 1-h.p. 3 phase A.C. motor, and a small electric fan forces a breeze through to keep the armature cool.

The natural commutation ripple of the generator is smoothed out by a filter system consisting of an iron core choke in each lead with a 1 mfd. condenser across the output ends of the chokes. A further choke is used in the positive lead of the plate supply

to act as a modulation choke, and consists of the secondary of an old telephone translator coil.

A hot wire meter indicates radiation, which with the aerial in present use is approximately 750 milliamps. A moving coil meter in the plate circuit indicates plate input current, and a voltmeter is inserted between plate and filament to indicate plate voltage. Needless to say these meters must be of the highest possible quality and workmanship. There are a voltmeter and ammeter in the filament circuit, the voltmeter being controlled by a two way switch so that the voltage across the filament of either of the power tubes may be easily read.

The receiver employs a two valve circuit designed for maximum efficiency and ease of control, especially on amateur wavelengths (i.e., 150—250 metres).

The circuit is a modification of the Reinartz, and employs what is known as the Chambers system of feed back, this being necessary to permit oscillation on the low wavelengths. Greater amplification cannot be used, owing to interference from power induction and other causes.

Station 4HW transmits almost every night on approximately 220 metres. The programme comprise for the most part gramophone numbers.

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WORLD WIRELESS

Some Interesting Views

Some few days ago, Mr. G. Mason Allard, Federal Government representative in connection with wireless matters, returned from abroad, and had some interesting remarks to make in connection with wireless generally, in the older portions of the world.

"Developments of great importance in regard to the science and control of broadcasting are at present pending in Great Britain, the United States, and Germany," he said.

"In Britain," he continued, "a committee is at present sitting in private considering the whole question of the control of wireless broadcasting in Great Britain and Ulster. In Ireland, outside Ulster, the problem has been solved temporarily by the establishment of a station in Dublin, and another in Cork, owned and controlled by the Free State Government. The British Post Office authorities are endeavouring to get control of ordinary broadcasting in Britain, whilst there are numerous business organisations, now outside the British Broadcasting Company, which are endeavouring to have the monopoly of that company broken down.

The great majority of British listeners-in are believed to be favourable to the continuance of control by the British Broadcasting Company, which is a

co-operative company owned and managed in the interests of the radio trade. Mr. Allard said there was, to his mind, no doubt that the quality of the output, as well as the variety of programme, of the British Broadcasting Company was the best in the world, and endeavours to come up to its standard of programme were being made not only in the United States, but in Germany and France. In the two latter countries the tendency is to have Government control of broadcasting, either direct or through controlling companies.

In the United States there is no monopoly of broadcasting, and no company gets any revenue for the programme broadcasted other than that secured from casual advertisements. The big radio corporations and dry goods stores, said Mr. Allard, ran broadcasting either for the popularising of radio goods or for ordinary store publicity, the cost of running the wireless station being charged to the general expense account. Business competition was so keen that when one big firm "went on the air," rival firms in the same or adjoining cities had to do likewise. Mr. Allard thinks there will be some attempt made by the Government at an early date to control broadcasting and reduce the number of stations in the United States.

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You can purchase your Masts in one length of Oregon Pine, from 30ft. lengths of 3 x 3 to 80ft. lengths of 6 x 6, also 4 x 4 and 5 x 5 to any length.

We are experts and specially select the timber for this purpose. Write or Ring Desk A to-day, you will be surprised how little good Aerial Masts will cost you.

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We are proud to put our name on these receivers. We build them—and thus we KNOW that only the best and most expensive components are assembled by highly skilled mechanics. Notwithstanding these advantages The "Simplex" are no dearer than other sets.

Write or Ring Ipswich 491 now.

One Demonstration Will Convince You

Let us prove this set to you by actual demonstration. If you live within the precincts of Brisbane or Ipswich we will be happy to give you a free demonstration.

EVANS

ELECTRICAL COMPANY

Radio Dealers and Electricians

Brisbane Street, IPSWICH

An Explanation

We have received a letter from Mr. L. O. Kerlin, licensed radio dealer and manufacturer of Conon Street, Albion, in which he advises us that his attention has been drawn to an article which appeared in our February issue, under the title "Beware of the Radio Fakir."

Mr. Kerlin points out that he is regarded as being the only manufacturer in business at Albion, and that he has had a number of inquiries, as to whether the article had reference to him.

We have pleasure in stating that the article in no way referred to Mr. Kerlin, but was intended to refer to another manufacturer in the district.

VALVES—Their Battery Consumption and Microphonic Noises

The "B" battery consumption of ordinary valves is about 6.76 milliamperes and up to recently, every valve on the market had the defect of giving off microphonic noises. It was these defects which led the inventor of True Blue Tubes to spend thousands before he produced the only non-microphonic valve in the world, besides reducing the battery consumption to 1.7 milliamperes, thus cutting down the cost of upkeep of "B" batteries to one-fifth, an immense saving to users. These improvements also lengthened the average filament life two to three times. True Blues were first put on the market at 50 per cent. higher price than ordinary valves, but their sale could not be stopped. Increased demand caused a reduction in manufacturing costs; now, experts and good judges wonder how a non-microphonic tube of this quality and long life can be sold here at 25/-. They are the wonder tubes of the year. Your set deserves the best value, so don't spoil it for a few shillings. Don't let them say your set is "Like a bad gramophone." Take a True Blue home to-night, and hear the difference—music, not noise. They are obtainable at most radio stores. As True Blues have been imitated in color, you are advised to see that "Brightson True Blue" is stamped on the bakelite base. Trade enquiries to Parsons and Whittemore Limited, 30 Market Street, Sydney.

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Hardwood and Oregon Pine Wireless Masts delivered and erected. Three coats white paint, well-finished, and fitted with special hardwood base. These poles will stand for a lifetime. Ring J1976 for particulars.

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Bedtime Stories

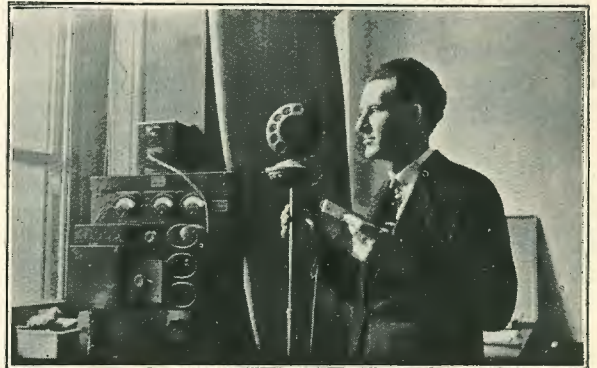


"The Sandman" preparing to read his messages to little listeners.

A group of photos taken in the studio showing "The Sandman," who is so popular among the little listeners to the bedtime stories at Station 4QG.



"The Sandman" and his Kentucky Whistle.



"The Sandman" and his Mouth Organ.

A Low Power Achievement

Experimental Radio, 4CK

Hume Street,
Toowoomba,
February, 15, 1926

The Editor,
"Queensland Radio News."

Dear Sir,—

On Sunday evening (14/2/26), at 9 p.m., I was in two way communication with HVA, in Fournier, Service Radio, Hanoi, French Indo China.

My input at the time was 5.5 watts on two 5 watt Radiotron valves, and a wavelength about 35 metres.

The actual measured plate supply was 220 volts, D.C., and 25 milliamps, and a single wire aerial 50ft. long, using the third harmonic.

Contact was maintained for nearly an hour. HVA's signals were of excellent quality and strength, on about 30 metres.

Trusting this will be of interest to your journal,
I am,
Yours faithfully,
E. L. NORRIS.

(Well done, 4CK!—Ed.)

2BL STUDIO NEWS

Station 2BL report that their experimental work in connection with the short wave length transmission has aroused general interest and obtained response from various parts of the world. On the first night of the short wave transmission it was picked up by an amateur station in the State of New York, close to New York City. Mr. Ray Allsop, 2BL's engineer, has been in touch with a number of amateur stations throughout Australia, New Zealand, and America.

The power behind 2BL's transmission is causing the station to be heard in various parts of the world. Recently, letters were received from Pebble Beach, Montara County, California, and Rejina, Canaça, from two enthusiasts who have succeeded in obtaining the station at loud speaker strength. At California, jazz music, transmitted by 2BL was heard to perfection and in sufficient volume to be danced to. The Canadian listener-in was able to give in correct sequence the names of half a dozen items as broadcast, and the distance between Rejina and Sydney is just over 10,000 miles.

Mr. A. T. Keeble, B.Sc., the Science Master of the Sydney Grammar School, returned to 2BL's programme on February 22nd, for a lecture on "Nitrogen from the Air."

Miss Mary Charlton, pianiste, appeared on the programme of 2BL on February 23rd. Miss Charlton's work is marked by delicacy of touch and beauty of interpretation. She is a pianiste who is destined to go far. On the same programme there will appear Mr. Robert Turner, an entertainer of outstanding ability.

On Wednesday, February 24th, Miss Margaret McKenzie was heard in mezzo-soprano solos. Mr. Mayne Lynton and his charming and talented wife, Nancy Stewart, have joined the ranks of Broadcasters artists, and presented a sketch on the evening of February 24th. As these two artists are each widely known in the theatrical world, their wireless reappearance will be looked forward to with considerable interest.

Mr. Frank Shepard's Dramatic Company presented a sketch on February 25th from the studio of 2BL. The fine work of this little band of artists continues to win the approval of all the listeners-in, and their items are eagerly awaited. On the same programme, Miss Daisy Meagan, coloratura soprano, sang items, operatic and otherwise, and Miss Alice Prosse, contralto, was also heard. Mr. Bard Lear's minstrel show continues to be a feature of the work of 2BL. The desire for minstrel shows continues to grow, and many people have turned again to this old fashioned type of entertainment with infinite pleasure. To those who remember the Music Hall Shows of 25 to 30 years ago, many of the songs and jokes will be strangely familiar, while to those of the present generation, there is a decided novelty in this form of entertainment.

A group of young University graduates are co-operating with Broadcasters in an endeavour to popularise scientific knowledge by presenting it in its

most entertaining manner. A series of lectures are in course of preparation, dealing with engineering and other matters, and will be delivered at an early date. The romance of bridge building and of engineering generally will be presented in such a way, that the listeners-in will be educated and thrilled simultaneously.

On February 27th, the Ahad Duo was heard with ukeleles and steel guitars. The cry soul of Hawaiian music is put on the air by the talented couple, and memories of Waikiki Beach and other spots around Honolulu are brought back to heard and mind as they play. Miss Gladys Hart, soprano, will also be heard on the same programme, and Mr. Reg Harrison, comedian, will assist in entertaining, while Mr. Billy Dick presents series of songs at the piano.

Miss Madge Helmrick, sister of Miss Dorothy Helmrick, who has achieved so notable a success in London, is the possessor of an exceedingly beautiful voice, and appears on Broadcasters' Programme for the first time on March 1st. Miss Helmrick possesses a wide repertoire of songs, all of which possess a heart appeal and it is anticipated that she will rapidly sing her way into the affections of the listeners-in. Mr. Roger Jones, baritone, and Miss Mary Charlton, pianiste, appear on the same programme.

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How the Thomas Radio Company are Helping the Amateur

These days it is often that one can get something for nothing, yet the Thomas Radio Coy. are assisting dozens of amateurs weekly, through the channels of their many helpful services, designed purely and simply with a view to aid the genuine amateur, and to boost wireless along generally.

These people have installed some very elaborate and sensitive testing apparatus, prominent among which is a device upon which they test the valves of any amateur who cares to bring them along. This testing instrument can detect in an instant whether or not the valve is faulty, and if any, it shows just where that fault or weakness lies. The service is free.

Another free service is that of battery testing. Amateurs may take along their low or high tension batteries and have them tested on special apparatus without charge. Needless to say many avail themselves of the opportunity.

One of the latest and most wonderful pieces of apparatus to be installed by this company is a Valve Rejuvenator. With this instrument, it is possible to rejuvenate a valve up to its original standard—providing, of course, the valve is not too badly damaged. It is interesting to compare the characteristics of a valve before and after rejuvenation. One could hardly credit the transformation, and best of all, the valve retains its renewed efficiency for quite a considerable length of time. A small charge of 2/6 per valve is made for this service to cover expenses.

The newest phase of service instituted is of a visiting, overhauling, and repairing nature, whereby an amateur experiencing trouble with his set, need not bother to "hump" it into town, but simply calls on the Thomas Radio Coy., and these people send an expert mechanic to his home and rectifies the trouble for a small fee.

Wireless in the Islands

Colonel Lean, Administrator of Norfolk Island, in writing to a friend, says:—"Last boat the department sent me a Radiola Super Wireless Set. This has made all the difference to our life here. The results I get are wonderful, and instead of being cut off from the world, we are now in touch with the daily news budget, and have a splendid choice of programmes every evening. I could not have believed that such a small matter could have made such a huge difference to our lives."



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denotes that your subscription
expires with **THIS ISSUE**

Early readers will remember how we distributed Numbers 1 and 2 gratis, and dated all subscriptions to hand as from 1st April, 1925. Thus, these subscribers are now due for a renewal of their subscriptions.

The next twelve months are going to be big ones for Queensland Radio. Our paper will, as always, keep you well informed on all matters of local and interstate radio interest. Remit a cheque or P.N. for 6/6 now—before you forget—and make sure of securing twelve more big newsy numbers.

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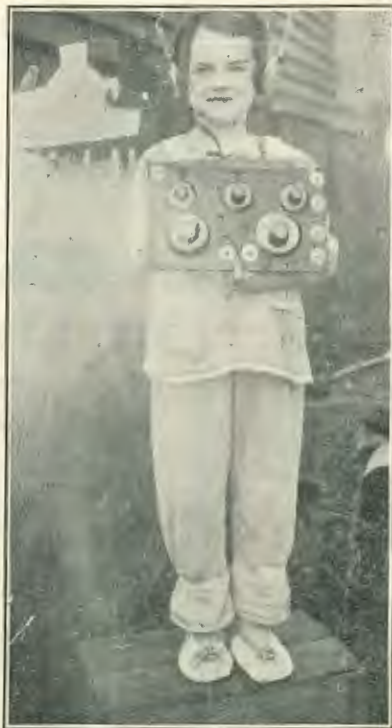
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Bedtime Story



LITTLE "VALERIE" as "PETER RABBIT."



LITTLE "GAY."

Listeners [4QG]



"WINNIE and BERYL," of WOOLLOOWIN.



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A Distinguished Engineer

Mr. J. G. Reed, whose photograph we publish above, is at present in Brisbane supervising the installation of the high-power transmitter at Station 4QG on behalf of Amalgamated Wireless (Australasia) Ltd.

Mr. Reed, who is recognised as one of the foremost wireless engineers of the present day, prior to entering the Radio Service of Australia, was assistant telegraph engineer in New South Wales. He resigned from the Postal Department to take up wireless, and in 1917-18 was associated with the Royal (Australian) Naval Radio Service. On the cessation of hostilities, the control of this service was handed over to the Postmaster-General's Department, and Mr. Reed took up duty as a Radio Engineer, Central Administration, Melbourne. While there, in conjunction with other officers, he carried out duplex radio telephony transmissions between Tasmania and the mainland, and his work in this direction met with an amazing amount of success.

On the Radio Service being taken over by Amalgamated Wireless, Mr. Reed joined the staff of the latter company and investigated broadcasting from both the receiving and transmitting sides. Lately, however, his attention has been solely confined to transmitting equipment, and practically the whole of the high-power transmitters which are now used in Australian stations are his design.

He carried out the initial work in connection with the construction of the small half kilowatt transmitters manufactured by his Company, and the high-power transmitters which are now in use at 5CL, 3LO and 4QG practically entirely comprise his ideas and designs. Not only has he concentrated on broadcasting transmitters, but most of the new apparatus which has been fitted into coast stations to enable the old interfering spark transmission to be replaced by a modern system of interrupted continuous wave telegraphy has been designed by him.

With all this, he is quite a young man.

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which will work a Loud Speaker under favourable conditions around Brisbane, complete with all accessories. **£16**

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With Wiring Diagram and Full instructions for assembling

LIST OF PARTS FOR THE CONSTRUCTION OF A TWO VALVE SET.

	£	s.	d.
1 Panel	0	11	3
2 Valve Sockets	0	7	0
2 30 Ohm Rheostats	0	10	0
1 2-Coil Holder	0	10	0
1 .001 Variable Condenser	1	7	6
1 Grid Condenser	0	3	0
1 2Meg Grid Leak	0	2	6
1 Baseboard	0	1	6
12 Lengths Bus Bar Wire	0	2	0
1 Set Engraved Terminals	0	4	0
1 Soldering Set	0	2	6
1 Transformer	1	1	0

£5 2 3

2 Valves Dull Emitter or Bright Emitter	1	5	0
1 "B" Battery	0	12	6
1 Set Coils (3) Mounted	0	9	9
1 Pair Head Phones	1	2	6
Aerial Equipment	0	7	6
3 Dry Cells	0	8	3

Total

LIST OF PARTS FOR THE CONSTRUCTION OF A THREE VALVE SET.

	£	s.	d.
Panel 21in. x 9in. x 3-16in. Drilled	1	3	6
1 Baseboard	0	1	6
1 2 Way Coil Holder	0	10	6
2 30 Ohm Rheostats	0	10	0
3 Valve Sockets	0	10	6
2 Transformers	2	2	0
1 Grid Condenser and 1 Grid Leak	0	3	6
1 .001 Variable Condenser with Vernier	1	7	6
1 Single Circuit Jack	0	2	3
1 Set Engraved Terminals	0	4	0
1 Soldering Set	0	2	6
15 Lengths Bus Bar Wire	0	2	6
1 Terminal Strip	0	1	0

£7 1 3

3 Valves Dull or Bright Emitters	1	17	6
2 42 Volt "B" Batteries	1	5	0
1 Pair Headphones	1	2	6
3 Dry Cells	0	8	3
Aerial Equipment	0	7	6
Set of Coils (6)	1	1	9

Total

LIST OF PARTS FOR THE CONSTRUCTION OF A FOUR VALVE SET.

	£	s.	d.
1 Panel 21in. x 9in. x 3-16in.	1	3	6
1 Baseboard	0	1	6
2 .0005 Variable Condensers	1	10	0
1 2 Way Coil Holder	0	10	6
4 Valve Socket	0	14	0
3 30 Ohm Rheostats	0	15	0
1 400 Ohm Potentiometer	0	5	6
2 Transformers	2	2	0
1 Single Circuit Jack	0	2	3
1 1 Double Circuit Jack	0	3	0
1 Grid Condenser	0	2	0
1 Grid Leak	0	2	6
1 Pair Leak Clips	0	1	0
1 Phone Plug	0	2	6
1 Soldering Set	0	2	6
1 Battery Switch	0	2	9
1 Panel Plug	0	3	6
1 Set Terminals	0	4	0
21 Lengths Bus Bar Wire	0	3	6
2 Terminal Straps	0	2	0

£8 13 6

4 Valve Dull or Bright Emitters	2	10	0
2 42 Volt "B" Batteries	1	5	0
3 Dry Cells	0	8	3
1 Pair Headphones	1	2	6
1 Set Coils (7)	1	6	3
Aerial Equipment	0	7	6

Total

J. B. CHANDLER & CO.

"For Radio Service"

ADELAIDE STREET, BRISBANE

(Next Allan & Stark Limited)

S.A.S.

When Your Set Won't Work

Where to Look for Trouble and How to Fix It

By EDGAR H. FEIX, M.I.R.E.
In "Popular Radio"

When your first automobile gave trouble, it made some kind of a snort, squeak, wheeze, or dying gasp which gave you a clue to the cause of trouble.

But a radio set just simply stops working.

The powers that operate it are invisible; they do not cause response to our sense of smell, taste or pressure. They respond only to our sense of hearing. These forces are so elusive that a detective cannot trace them. They slip out of the wrong door at the least opportunity, and if you do not treat them exactly as you should they will not serve you.

It is for this reason that radio receiving troubles are so hard to analyse. The only apparent way to find the cause of trouble is to try every connection, every control, every adjustment, one at a time, until you finally hit upon the part out of order or the incorrect adjustment.

There is, however, a sensible, logical, and direct process of analysing faults in a radio set. In this article I will give you an idea of what to do if your set suddenly stops working.

There are only three general symptoms of trouble which can be detected by the human senses. These three symptoms all appeal to the sense of sound. First, you can easily tell if you are not receiving any signals at all; second, you know when you get an unusually weak signal—much weaker than you are accustomed to hearing from a given station; and, third, you can readily distinguish noisy reception.

Although these three distinctions do not seem to be of particular help, they do enable you to at once eliminate a good many possible causes of trouble and to concentrate upon those which are most likely to be the cause.

WHAT TO DO WHEN YOU HEAR NO SIGNAL AT ALL.

The first of these symptoms of trouble—when you hear no signal at all—is perhaps the least exasperating. There is no question that something is wrong when you do not hear anything. Consequently, you set to work to solve the mystery.

If you have been receiving signals nicely, and then suddenly they stop without any apparent cause, look first to the adjustment of your detector.

If you use a crystal detector, monkey with the adjustment until you have found a sensitive spot. In

this lies the cause of most of the troubles in crystal detector receiving.

An excellent aid to adjusting a crystal detector is the use of a high-pitched buzzer. Connect with one side of your detector the terminal of the buzzer where the make and break of the connection is made. You can easily identify which buzzer terminal this is by the little spark at the set screw making the contact with the movable arm of the buzzer. This contact is connected directly with one of the two terminals of the buzzer.

When the buzzer is thus connected and operating, it will set up magnetic waves in the secondary circuit of your receiver which will enable you to adjust your detector. At various detector adjustments the buzzer sound in the head telephones varies in strength. Leave the detector adjustment alone when you find a good loud point—you are then ready to receive.

When a vacuum tube detector gives no signal at all it is usually a sign that something serious has happened. Vacuum tube detector troubles, however, are not difficult to locate.

WHERE TO HUNT FOR VACUUM TUBE TROUBLES.

The first thing to do is to examine your filaments. Do they light properly and to full brilliancy? If they light at all, the filaments are not burned out. If they do not light when a battery of proper voltage is applied to them, they are burned out. For this there is usually no remedy except to buy new tubes.

But this is not the only possible cause of vacuum tube trouble. The filament may be burning properly; the spring contacts to the prongs of the tube, on inspection, may show that a good contact is being made with each prong, yet you may not hear a sound. Sometimes the new thoriated filament tubes lose their vitality without the filament burning out. If this is the case, try out the tube in a tube rejuvenator to restore the thorium to active condition.

Look to your "B" battery, which provides the high voltage for the plate circuit. Are its connections complete? Do you get a loud click in the phones when you disconnect the telephones from the plate circuit? If you do not there is something wrong with the plate circuit. Trace it from beginning to

end, from the plate as far as the filament. Try your phone connections. Sometimes one of the cords pull off the head piece of loudspeaker connections. Sometimes the plug does not make a good contact with the jack.

With some sets there is a variometer in the plate circuit. This variometer makes it a regenerative receiver. Occasionally the connection to the rotor becomes broken from continued use. Examine the leads carefully.

HOW TO TEST THE PLATE CIRCUIT

Touch one of the plate battery binding posts with your wet finger. If your plate circuit is complete, your filaments lit, your "B" battery at full strength and the wiring correct, you should hear a click when you touch the "B" battery binding post with a wet finger. There is something wrong in the plate circuit itself if you do not hear a click under these conditions. It may be with the telephones or the loudspeaker.

HOW TO CHECK UP YOUR ANTENNA.

The cause of trouble may lie in the antenna system. A loose antenna connection sometimes makes it possible to hear faint signals, but when your lightning switch grounds the antenna, the chances are that not a sound can be heard in your telephone receivers. Look over the antenna system, trace it through the tuning inductances to the ground connection; trace the secondary circuits of the receiver from the grid connections on the tube bases to the filaments, making sure there are no loose connections with switches, binding posts or movable tuning elements such as variometers and variable condensers.

If your set ever worked at all, a search of the kind I have indicated will locate the cause of trouble.

WHAT TO DO WHEN YOUR SIGNALS ARE UNUSUALLY FAINT.

A different kind of trouble may be the cause when you hear only weak signals. Every station comes in evenly and smoothly, but it is only half or one-quarter as loud as usual. This usually happens when you are trying to demonstrate your radio set to friends.

With a crystal receiver the first thing to do is to get a better adjustment of the crystal. If a number of careful attempts of adjustment produce no improvement, look elsewhere for trouble.

*With a larger set using radio frequency amplification and a vacuum tube detector there are various possible causes. First, be sure the filaments light to normal brilliancy. It may be that the filament storage battery has run down and needs charging. In that case you do not get proper filament brilliancy.

Another possible cause is a run down "B" battery. Large capacity batteries last from six to twelve months. Some of the small sizes last anywhere from one day to three months. You never know what to expect of a small battery. If the "B" battery has run down, you do not get a sharp click when the telephones or loud speaker or the "B" battery are suddenly disconnected from the plate circuit. Be sure the filaments are lighted when you make your test.

With a home-made vacuum tube set, where the binding posts for the storage battery and the "B" battery are not marked with plus and minus signs, you may make the error of reversing the battery connections. If you have done this, reverse them again so that they are as they should be. The positive terminal of the "B" battery should connect with the plates of the tubes either directly or through the phones and tickler coil.

Another possible cause of trouble is too great a degree of filament brilliancy on the soft detector tube or too high plate voltage or a grid-leak of too high resistance. As you gradually increase the filament brilliancy beyond normal, the first effect is a rapidly increasing hiss. A still greater increase causes a loud hiss until you hear a click and signals stop altogether. Your tube is now what is termed in technical parlance "paralysed." Under this condition you may sometimes see a faint blue glow around the filament and near the plate. Oftentimes a strong signal from a nearby station tips the balance and causes tube paralysis if the grid-leak is not properly adjusted.

Too much plate voltage also causes the same trouble. Reduce the plate voltage to normal, and decrease the resistance of the grid-leak.

When using a regenerative receiver there is another possible cause for signals dying out. If too much inductance is used in the plate circuit the tube starts oscillating which destroys the tone of all voice and spark signals. A readjustment of plate inductance is necessary to remedy this.

Weak signals are often received when the antenna is disconnected, either by a break in the lead-in or by leaving the switch in the grounded position through an oversight. Trace the entire antenna system through your set. See that good connections are made with the tuning elements. If there is a variometer used, examine the connections. See that the ground lead is unbroken and makes good contact with your ground connection.

Go up on the roof and see if the antenna wire or the lead-in "grounds" at any point. Trace the second

ary circuit of your set. You often get weak signals although there is a break in the grid connection to the secondary inductance.

If your trace of antenna and secondary circuits has shown them to be in good working order, the trouble must lie in the tube circuit. Do not overlook the test for phone sensitiveness and condition of "B" battery already mentioned. Your diagnosis, if thoroughly done, is bound to reveal the cause of trouble.

HOW TO CHECK NOISY AND IRREGULAR RECEPTION.

The final class of troubles accompany noisy reception. You may for a moment get a good loud signal and then suddenly it dies down; later it comes back in full strength. This is the easiest kind of trouble to locate. But you can only locate this if you keep your temperature below 104 and refrain from getting excited.

When great variation of signal strength attends reception there is a loose connection somewhere. Slowly operate each control of your set, one at a time. If there is a break in the variometer leads or the connections to the switches, you may readily find it by this process. If the trouble lies in a loose connection, sit perfectly still in front of the set for a moment without moving your head or hands and see if any variation in signal strength takes place. If it does not, continue in your search for broken connection. Shake the wire which leads to the telephone head piece or loudspeaker. If that produces a series of clicks and wheezes you may find the copper wire has come loose from the cord tip.

Sometimes the trouble is not with your set at all. It may be that there are variations in the strength of the incoming signal, due either to transmitter troubles or to an absorptive receiver in your immediate vicinity. This is not difficult to diagnose. All you have to do is to tune to some other station, whether spark or telephone, it makes no difference. If a loose connection is the cause of your trouble it will affect all stations alike instead of only one particular station.

If varying the controls and trying the head receivers does not locate the trouble, trace each circuit, beginning with the plate circuit. See that the connections at the base of the tube are good. Trace all the battery connections and the plate circuits. Then trace the secondary circuits from the grid through the inductances to the filaments. Finally trace the antenna circuit from one end through the tuning elements to the ground.

*Don't be
in the
Dark!*



When you ask a few friends over to hear the Radio, naturally you—and they too—want to know what's on the programme. Don't pass round a newspaper. Buy

THE BROADCAST BULLETIN

which has 4QG's, 2BL's, and 3LO's weekly programmes printed in a compact little booklet and contains other matter of interest besides—including artists' photographs, etc.

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You'll find use for the "Bulletin" every night in the week—for you have the choice of three programmes at your finger-tips. SEND A POSTAL NOTE TODAY—you'll not regret it.

The
"Broadcast Bulletin"
c/o "The Queensland Radio News"
Box 1095 N, G.P.O., BRISBANE

*Obtainable at all Radio
Stores and Bookstores.*

A steady reception of noise, which does not vary no matter what tuning adjustment is used, is sometimes caused by a low "B" battery used with a reflex receiver. It is often possible to get additional service from such "B" batteries by using them on non-reflexed tubes. With heavy current drain sets extra large "B" batteries give the most economical service in cost per hour of use. Another cause of noise may be vibrating tubes caused by building vibration, typewriters or nearby machinery.

There are other causes of trouble but these which I mention constitute the 99 per cent. of them all. The remedy in each case is simple and obvious once the cause is located.

Once you have successfully discovered a trouble, the next time it occurs you can locate it in an instant.

When Your Receiver Won't Work

- 1.—See that your lead-in and antenna wires are securely and electrically connected.
- 2.—See that your ground connection has perfect contact with the water pipe, radiator, or other grounding means.
- 3.—See that your "A" battery wires are connected to a clean surface of the lead terminals; the negative terminal must go to the negative binding post of the set.
- 4.—See if the filaments are lighted. If they are not:—
 1. See if your socket prongs make contact; if they do not, bend them up higher;
 2. See if your "A" battery connections are poor;
 3. See if the filament wiring in the set is unsoldered or broken;
 4. See if a tube is bad; test it out in another socket to find out if only prongs need bending up;
 5. See if the rheostat winding is making a complete connection with its terminals.
- 5.—See that your condenser plates are spaced equally and do not touch each other.
- 6.—Change the phone tips of your loud-speaker terminals, to give best reception.
- 7.—See that all the soldered connections of the grid and plate circuits are all right. If you are not sure that the connection is complete, test it by placing a pair of headphones across the connection with a "C" battery in series with the headphones; if there is a loud click the connection is perfect. (This test applies to all connections.)
- 8.—Test the primaries and secondaries of the coils by the headphone-battery method.
- 9.—Test your "B" batteries, which should measure at least 80 per cent. of original voltage. Your "A" battery should show no less than 1175 on the hydrometer before recharging.



Station 3LO recently gave a party to its juvenile listeners in the Auditorium, Melbourne. The huge theatre was filled.

He: There's nothing very striking about that little man over there, is there?

She: No.

"And yet that man's name is famous in the radio world.

Really?

Yes, his name would be known in almost any part of the world.

Good gracious: What is his name?
Smith.

"AENOLA" RADIO RECEIVERS

The Cheapest in Brisbane by far

Well built and remarkably cheap. Designed to give long range with clarity. Call and ask for a demonstration before purchasing high-price sets elsewhere.

NOTE THE PRICES:

Crystal	£3-0-0	3 Valve	£20-0-0
1 Valve	£9-0-0	4 Valve	£25-0-0
2 Valve	£14-0-0	5 Valve	£32-0-0

These prices include Dull Emitter Valves, Batteries, Headphones, Cabinet, Aerial Equipment and Coils.

Loud Speakers from £2 upwards extra.

Using a standard 4 Valve "AENOLA" Radio Set in Melbourne, music was received from Durban and San Francisco on several occasions, and was at times strong enough to work a loud speaker.

Your Choice will be an "Aenola"

A. E. NEWNHAM

Care of H. E. HOWCROFT,

FIVEWAYS, WOOLLOONGABBA

Phone J 2555.



RADIO SMILES

TERMS USED IN RADIO PRACTICE.

For the information of those embryo Marconis who are not quite familiar with abstract terms used in radio practice, I herewith set down the most important of the whole glossary. Needless to say, these have been glossed over as much as possible:—

Automatic Receiver: My wife on pay nights.

Ether: An anaesthetic which should be applied to all users of spark coils.

Aerial Ammeter: An instrument devised to tell more lies than a candidate for alderman. Much cussed and discussed by hams.

Antenna harp: An aerial erected in Ireland.

Arc: The first non-radio-equipped vessel, owned by Noah & Co., Ltd., for navigating the eddy current in a highly damped period.

Arrester: A man with a red nose, big feet and who wears a blue suit.

Amplifier: An apparatus designed to howl like a Comanche Indian when a finger is pointed at it.

Amplification, co-efficient of: The difference in range of a receiver as told by the salesman and that found by the purchaser.

Beat: A circuitous route assigned to policemen for sleeping on, and for their osculation of cooks at back doors.

Characteristic Curve: See Paris styles for summer.

Choke Coil: An instrument formed of Manila rope.

Coherer: One who listens in, in conjunction with another.

Compass, Radio: An instrument construed by sea skippers as devised to reflect upon their navigating skill. Used by radio fiends in apartment houses and other residences of cornet practitioners.

Continuous Waves: Expedient resorted to by modern women. Sometimes called Marcel permanent waves, used to hide hairpins and middle age.

Converter: A machine for changing the round holes in doughnuts. —John D. Forrest.

WHAT WIRELESS CAN'T DO.

"Think of it, Amelia," remarked Peter, as he read his Sunday paper, "the radio age is here! By television we'll be able to see all round the world."

"Yes," said Amelia, "but radio won't tell me where to find that thimble I lost."

"Broadcasting," continued Peter, "will go on for 12 hours a day; and there will be a special wave length for the proceedings of Parliament."

"Well, anyhow," said Amelia, hopefully, "we can cut that off."

"We shall merely have to turn over a lever and we can call up a friend at the other side of the world."

"Yes, Peter, said Amelia, "and the radio exchange will put us on to the wrong number, and the wireless waves will be crossed, and we'll find ourselves listening to an Eskimo trying to raise the local Iceland exchange."

"Power and light for household use will be distributed from wireless stations."

"Yes, dear, and the chops will be short-circuited and the porridge will oscillate."

"Think of aeroplanes controlled by wireless, Amelia."

"Yes, you may be able to control aeroplanes; but I'll still have to control the children in the good old way that grandma did—over her knee. And wireless is not going to sew on trouser buttons, or clean out the sink, or feed the baby."

And Amelia plucked a woman's pre-wireless weapon—a hair-pin—from her hair and proceeded expertly to mend the gas stove.—Sydney "Sun."

"Doctor, I've tried everything, and I can't get to sleep," complained a voice at the other end of the wireless. "Can't you do something for me?"

"Yes," said the doctor; "just listen in and I'll sing you a lullaby."

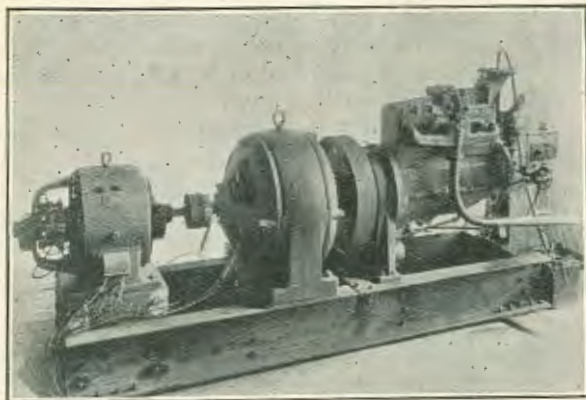
A Novel Combination

Radio Station at Thursday Island

An adaptation of the Fordson Tractor Engine in conjunction with wireless was recently made by Amalgamated Wireless (A/sia), Ltd., when a Fordson was assembled with electric alternator and exciter, the whole comprising the power unit for operating a coastal radio station, which is replacing the existing station at Thursday Island:

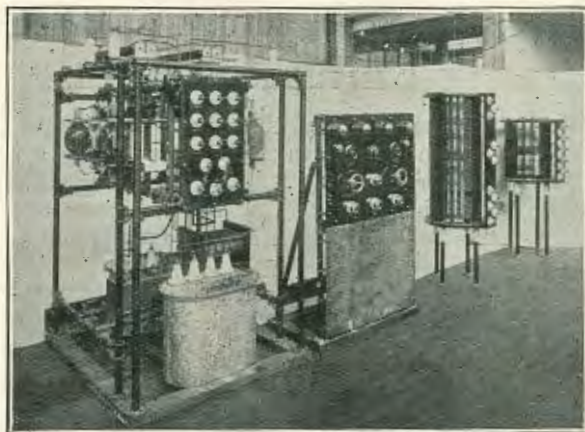
The reassembled Fordson Engine operating with an alternator and exciter makes a rigid, high speed plant, remarkably free from vibration, and of exceptional strength. It has its own electrical starting and generating devices, and a sensitive governor controlling the engine under full load to a degree suitable for the most exacting service at any speed desired between 700 and 1500 revolutions per minute.

The Fordson operates on either kerosene or benzine fuel. An unusual feature in the design is the starting device; it is possible to start up the engine by simply pressing an electric bell button, 100ft. distant from the engine.



Fordson Engine coupled to Alternator and Exciter.

Mr. R. V. Clifton, of Harbour Street, Sydney, assembled the power unit and designed the governor controls. So successful is the unit in operation that a repeat order has been given by Amalgamated Wireless (A/sia) Ltd., for a similar plant.



Thursday Island Set.



TRUE BLUE

The Wonder Valve

You've never heard perfect music by wireless unless you have used TRUE BLUE Valves. Non-microphonic and vastly superior to other valves. Better and cheaper in the long run.

Economical on consumption, and has two or three times the average valve life.

Two Styles, STANDARD and SMALL Sockets. True Blues are obtainable at—

McWHIRTER'S, OVERELL'S, SMITH AND GIBSON, G. O. WILLS AND SONS.

Trade Enquiries to the Sole Agents.

PARSONS & WHITEMORE LTD.

30 MARKET STREET, SYDNEY.

FOR SALE OR EXCHANGE

If you have anything to sell or exchange here is the place for it. A small charge of 1/6 per insertion (prepaid) for 3 lines (about 24 words) is made. Stamps in this case will be accepted. Address: "For Sale Column," "Queensland Radio News," Box 1095, Brisbane.

FOR SALE.—"Giblin Remler," all wave tuner, 20/-; "Premier" H.F. Transformer, 7/6; "Sterling" Variometer, 20/-; Three Weco Valves and Sockets, 45/-; Weco Audio Transformer, 3 to 1, 15/-. All these components are NEARLY NEW, and guaranteed to be in first class order. E. W. Clacher, Annerley Road, Annerley, South Brisbane.

FOR SALE.—1 Pair 8000 W. E. Head Phones, Sens Randell, 27/6; 2 Pairs selected Mello Head Phones, 4000, 17/6 each. Apply C. L. Dunn, Sherwood.



A 3LO Artist

Miss Harriet Bennett who has been broadcast by Station 3LO. Miss Bennett started singing when only eighteen months old. Both her mother and her aunt—Madame Louise Brehany—were well known concert singers, and from them she picked up French and German operatic songs. At ten she had an extraordinary powerful voice, which was trained with the greatest care by her aunt. Critics thought the voice would become a contralto; but it turned into a very beautiful and very flexible colaratura soprano.



WINCHESTER Radio 'B' Batteries

22½ Volt Size

13/-

See these famous Batteries in our Windows and Show Cases, or if out of town write us for further particulars.

45 Volt Size

26/-

Get Better Service with the

WINCHESTER 'B' Battery

Here is a radio 'B' Battery that gives the radio fan the power and long life for which Winchester flashlight batteries have already established such a wide reputation.

WINCHESTER "B" BATTERIES carry a shelf guarantee of 12 months—no other Battery can give such a guarantee.

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"Brisbane's Electrical House"

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Correspondence

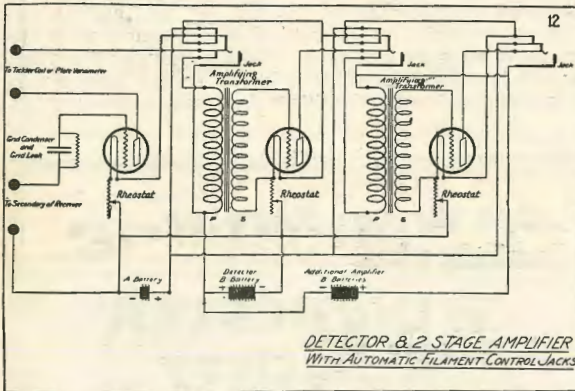
Mr. H. Cailez (Rockhampton) writes:—

I have built the five valve portable receiver as given in your December issue. I used two 11 plate condensers for the T-anode, and a .001 for the aerial.

You give only one Rheo, viz., Detector. Is there no control used on the 2 Radio and 2 Audio valves. I have had splendid results, but found I had to use two other Rheos. What coils will bring in GBR? Can tune in from 2FC to 2KY, but don't seem to be able to get lower.

The use of the extra rheostats as mentioned by you has a small drawback when the number of controls is considered, but separate filament regulation of the amplifiers and detector valves should give better results. It is always well to remember that a separate rheostat is desirable for use where audio frequency amplification is employed. Provided that the same types of valves are used as audio amplifiers one rheostat should do for two or more audio valves.—Ed.

J.A.C. (Landsborough).—You may get over-hand capacity effect by putting a slightly larger condenser in your set. You could alter the receiver by putting an ordinary jack between the third and fourth valves. This would enable you to switch off the fourth filament by means of the rheostat in circuit with it. We are publishing below a circuit diagram showing a two stage amplifier fitted with automatic filament control jacks. You, or other enthusiasts, may like to try it out.



DETECTOR & 2 STAGE AMPLIFIER WITH AUTOMATIC FILAMENT CONTROL JACKS

G.T.R. (Condamine Road).—The set you mention is a four valve receiver employing one stage of radio, one of detection, and two of audio frequency amplification. There are roughly three forms of radio frequency amplification, resistance coupled, transformer, and tuned plate. The first mentioned method is useless except for wave lengths over 1000 metres—hence its inclusion in the set. The second is the most used, and the third is quite a good method, but is difficult to adjust owing to the extra controls it necessitates. In the set you mention the impulses are amplified by the first valve and passed on at radio frequency to the second valve, which is the detector. This valve with its grid leak breaks down the radio frequency currents and passes them on to the third valve at audio frequency; the fourth valve further amplifies the note at audio frequency. The third or the fourth valve with its combination of apparatus as shown in the set would probably act as a detector of signals but it must be remembered that the currents which reach these valves (from the second valve) are at audio frequency.

THE EARTH CONNECTION.

Mr. G. T. Roscoe (Condamine Road, via Miles) writes:— Every radio text-book and magazine emphasises the importance of an efficient earth connection, and rightly so. How are you to make an efficient connection? The usual instruction is to connect the earth lead to a water-pipe. In the city, there is nothing better, but what about the poor country cousin who is hundreds of miles from a water-pipe? The books tell

you to use a metal rod or pipe driven into the ground. I've tried that in Brisbane, where the soil is clay, that holds water well, and it worked like a charm, but out here the sandy soil is absolutely dehydrated in dry weather, and is as good an insulator as porcelain.

When I first took up radio in 1923, I tried an earth rod, driven deep, and watered with loving care. The set was as mute as the Sphinx. On the advice of Mr. Price, of Wireless House, I then tried a counter-poise—two insulated wires, the same length as the aerial, slung about 6ft above the ground. This worked splendidly, but I soon found it had its drawbacks. If I slung it too high, it would decrease the effective height of the aerial. If I slung it low—well, one night the horses galloped into it, with lurid results; at least, if the results weren't sufficiently lurid, the consequent language most certainly was. What was I to do?

The books all advise you that a counterpoise should be insulated. Why should it be? Suppose I buried a wire, the same length as the aerial, and directly beneath it; it would be out of the road; if the weather was wet, it would make connection with the damp earth, and function just as a water-pipe does; in dry weather, when the ground was dust-dry and bone-hard, it would be effectively insulated, and act as a counterpoise. So I thought, and so it did.

I left the insulated counterpoise still rigged to allow of a direct comparison. On strong signals, no difference was noticeable. On weak ones, you could just tell the difference, and that was in favour of the buried wire, probably due to the slight gain in effective height. The buried wires has an other advantage—lightning is very severe here sometimes, and with an insulated counterpoise you must provide a separate earth connection. The buried wire is itself earthed. When a storm is coming up, you can listen safely still, even until the sparks start to rattle through the set, and opening the aerial switch makes pretty blue fireworks.

So, in conclusion, if you have no water-pipe, and your soil is too dry for an earth pin to be effective, bury wire of the same gauge and length as the aerial wire about 6 inches below the surface and directly beneath the aerial, and you will be free to enjoy the heavenly music, undistracted by the troubles of earth.

P.O. Cunnamulla, Q.,
February 19th, 1926.

(Editor, "Queensland Radio News.")

Dear Sir,—I thought I would write and tell you the results I am having with a one valve set. The first night I tried this set out on an aerial 80 ft. long and 20 ft. high results were very surprising. 2KY was first logged, then 3LO, 2BL, and 5CL in given order. Well, I then got energetic and put up a pole 50ft. high and one 30 ft. I have since got 3AR and 2FC. I am able with very careful tuning on some nights to tune in 6WF, so as the speech or music is just audible. But it is not worth mentioning, as it is not distinct enough to be understood. 3LO is by far the loudest. I am using Polar .005 condenser, and a radiotron UV199 valve, and it is to these components that I give the credit. The circuit is a straight-out P.I, using no grid leak.

I should like to hear from other readers in regard to the result they are having with their receivers. Not necessary one valve.—Yours, etc.,

REG. M. VICKERY.

I am waiting for the opening of 4QG, for I feel confident I can log him with this set.



Genuine R.C.A.— Radiotron Valves

*Bear this distinguishing
Mark*



Look for this Seal
It marks a genuine

Radiotron U·V199

“ “ “ **U·V200**

“ “ “ **U·V201^A**

“ “ “ **W·D12**

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Announcing THE WONDERFUL BLEECK

Radio 'A' Battery

The Battery Everybody
has been waiting for

At last Battery energy for Wireless Valves can be made available IN ONE MINUTE. No waiting on accumulators or storage batteries to be charged. All you do with the Bleeck Radio Battery is to pour water on concentrated solutions and powders supplied, and 50 ampere hours' energy made! The Battery is then ready for immediate use, either constantly or intermittently. It is fully protected and patented throughout the world.



The Bleeck Radio Battery will revolutionise the use of wireless in the country districts where facilities are poor and costs prohibitive for the charging of accumulators, apart from the inconvenience in transport. Two Bleeck cells with concentrated charges are a guarantee for reception at any time. Both the initial cost and cost of charging are most reasonable.

Instantly Charged By Adding Water NO ELECTRICAL APPARATUS REQUIRED

Voltage of 2 Cells in Series, 5.5

The Bleeck Radio Battery is something NEW in electricity—something to which wireless experts have been giving attention for years past. It is the ideal battery for radio reception, owing to its simplicity and constancy. It gives the highest voltage of any Primary Battery known to science—viz., 2.7 V. per cell. Capacity is 50 ampere hours. It is equally suitable for lighting lamps, driving fans, X-ray plants, sparking oil engines—in fact, any low voltage work where a constant, reliable and economical generator of electricity is needed.

There is no bubbling acid or battery noises in the Bleeck Radio Battery so often noticeable in faulty secondary batteries or accumulators.

Models will be available at the end of March, and orders received now will be fulfilled in strict rotation. Further details will be announced on this page next issue.

Write for Booklet and Full Particulars to

BLEECK RADIO BATTERIES LTD.

Bleck House, Burnett Lane, Brisbane

Phone Central 8570

W. A. BLEECK (Inventor)
Managing Director

Claims of the Bleeck Radio Battery

1. Very high electro motive force, 2.7 volts per cell.
2. Very low internal resistance.
3. May be fully charged in one minute.
4. Instantly ready for use when charged.
5. Constant under all loads.
6. Constructed of durable materials.
7. Consumption of zinc, 1 gramme per ampere hour.
8. No loss of zinc on open circuit (idle).
9. No polarization.
10. No local action.
11. No crystallization.
12. No fumes.
13. No distilled water necessary.
14. Weight very much lighter than accumulators.